



UNIVERSITY of TORINO

Self Evaluation Report

Faculty of Veterinary Medicine of Torino



Grugliasco, 15-19 November 2010



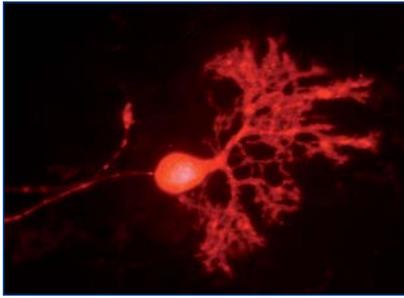
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INTRODUCTION (by the Dean)	5
CHAPTER 1 - OBJECTIVES	17
CHAPTER 2 - ORGANIZATION	29
CHAPTER 3 - FINANCES	51
CHAPTER 4 - CURRICULUM	71
CHAPTER 5 - TEACHING AND LEARNING: QUALITY AND EVALUATION	109
CHAPTER 6 - FACILITIES AND EQUIPMENT	149
CHAPTER 7 - ANIMALS AND TEACHING MATERIAL OF ANIMAL ORIGIN	179
CHAPTER 8 - LIBRARY AND LEARNING RESOURCES	207
CHAPTER 9 - STUDENT ADMISSION AND ENROLMENT	221
CHAPTER 10 - ACADEMIC AND SUPPORT STAFF	237
CHAPTER 11 - CONTINUING EDUCATION	255
CHAPTER 12 - POSTGRADUATE EDUCATION	267
CHAPTER 13 - RESEARCH	279





Staff and premises in the old Faculty



INTRODUCTION (by the Dean)

Please provide an outline of the main features of the history of the Faculty in the period since the last evaluation visit or, if there has not been a previous visit, in the last ten (10) years.

Historical Background

The Veterinary School in the Kingdom of Savoy was founded in 1769 near Venaria (at 15 km from Torino) by the surgeon Giovanni Brugnone (1741-1818) who attended the first courses in the School of Lyon, which had been established by Claude Bourgelat in 1762. King Carlo Emanuele III had sent four surgeons to learn Veterinary Medicine in France because of the needs of the cavalry in a period of frequent wars, but only Brugnone completed his studies and devoted himself to this discipline. This new School was the first in Italy and the fourth in Europe.

Brugnone was the only teacher at the School that, in the first years, was under the jurisdiction of the Ministry of War. The Institution was then relocated near Chivasso in 1793 and, during the period of French rule, came to Torino, namely in the Valentino Castle until 1814. With the restoration of the Kingdom of Savoy, the School was moved back to Venaria in 1818 and continued to be moved for the following forty years until 1859, when it was located in Via Nizza, at that time far apart from the town centre.

In 1934 the School became one of the faculties of the University of Torino, and the premises were progressively incorporated within the growing urban environment. In 1999, the Faculty was relocated in a wide area in suburban Grugliasco, forming a campus together with the Agriculture Faculty. The new facilities meet all the needs of students and teachers by providing a farm, a fully equipped veterinary hospital and a dog pound.

The evolution of the School in more than two centuries reflects the scientific, professional and social evolution of the veterinary profession, for long time in competition with empirics and blacksmiths. In the Italian Army, veterinarians were only granted the officer status in 1848.

Since its very first years, the School was directly involved in the running of horse farms for the Army and in the control of infectious diseases of cattle that caused huge economic damage to the Kingdom of Piedmont. When Italy became a state, various veterinary schools belonging to previously separate states were closed to reorganise teaching, and the School of Torino had a main role in the process. Carlo Lessona (1784-1858) deserves

to be mentioned for his studies about horse diseases and as the founder of the first veterinary periodic publication in Italy in 1838.

Felice Perosino (1805-1887) was an anatomist and was the first commander of the military Veterinary Corps; Domenico Vallada (1822-1888) was a pathologist, a teacher of zootechnics, and a forerunner in the studies in food hygiene. One of the most famous teachers of the School was Edoardo Perroncito (1847-1936), a pathologist who had the first chair of Parasitology in the world. His fame derived by the brilliant success in the diagnosis and treatment of *Ankylostoma*, a nematode at the origin of deaths among miners and farmers.

The School was visited by the EAEVE Committee on November 1999 and finally approved on 2002.

Main organizational changes

- 1) in 2010, the quality assurance certification in higher education, in compliance with the standard UNI EN ISO 9001:2008, concerning the Degree Course of Veterinary Medicine and the Continuing Education management system of the Faculty of Veterinary Medicine of Turin (hereafter "Faculty"), was obtained;
- 2) in 2010, the 24-hr Emergency service for companion and large animals has been opened, in addition to the pre-existing hospitalization service 24/7. Student access is allowed and organized at all times so as to promote their participation in all the emergencies and the hospitalization activities. The building of the Teaching Animal Hospital (VTH) has undergone interior remodelling to improve the Emergency service.
- 3) in 2009, a new program for computer management of medical care activity in the VTH was developed;
- 4) in 2009, a new railway station was accomplished nearby the Campus, at 500 m <http://www.comune.grugliasco.to.it/news.asp?id=2338.>;
- 5) in 2008, a Mobile Clinic service was implemented;
- 6) in 2008, five Vice-Deans (VD) were appointed in addition to the Vicar Vice-Dean:
 - VD for Erasmus exchange and for Continuing Education;
 - VD for Job Placement and student's Educational Guidance;

- VD for the Teaching Affairs;
- VD for the EAEVE evaluation;
- VD for the VTH.

- 7) in 2007, an agreement was signed with the Municipality of Grugliasco, to locate the Public Kennel in the Campus;
- 8) in 2007, a new children garden serving the staff working in the Campus was built in cooperation between the University and the City of Grugliasco. It is located beside the Campus <http://www.comune.grugliasco.to.it/channels.asp?arg=48&ald=849>;
- 9) in 2006, a new student's hall hosting about 400 students was built beside the Faculty (<http://www.edisu.piemonte.it/cms/residenza-villa-claretta.html>);
- 10) in 2005, the International Horse Centre (IHC) was established in the Regional Park "La Mandria", at 15 km from the Campus. The Faculty is officially involved in the management of the Centre, with the University of Turin, the Piedmont Regional Government, UNIRE (National Italian Association of Horse Breeders) and FISE (Italian Horse Sporting Federation). The Centre becomes, amongst other goals, a location for veterinary training;
- 11) in 2006, an underground station was located nearby the Campus, at 15 minutes walk <http://www.metrotorino.it/fermi.php>;
- 12) in 2004, a Teaching Manager was hired by the Faculty. A permanent position has been created in 2008.

New regulations relating to teaching

The Italian Ministry of Education, Research and University (MIUR) has recently (in 1999 and again in 2004) dictated new rules for all the University Degrees (Ministerial Decrees 509/1999 and 270/2004), according to the Bologna Declaration (June 1999).

In 2008, a new Curriculum in Veterinary Medicine has been adopted (see par. 2.1 and 4.1). Its implementation is in progress.

New buildings or major items of equipment

Although the Faculty is new and well equipped, in the past few years new buildings and equipment have been added, namely:

1) Slaughterhouse:

- new fencing
- improvement of the blow-offs
- new washing area for vehicles serving the premise

2) Teaching and Experimental Farm:

- refurbishment of the isolation unit for large animals
- restructuring of the guesthouse
- construction of a new stable for incoming animals waiting to be slaughtered
- construction of a new barn
- construction of 7 boxes to receive the hospitalized horses
- construction of an exercise area for equines
- reconstruction of all paddocks for equines
- reconstruction of multiple boxes with paddocks for cows, heifers and calves equipped with self-capturing devices
- refurbishment of individual boxes for steers, and their equipment with self-capturing and safety devices
- positioning of a new labour for safe handling and sampling, with weighing system
- construction of 3 silos and a self-feeding system
- construction of a cool room for carcass storage
- modernization of the ventilation system in the piggery
- creation of external paddocks for pigs
- dressing of a surgical room with related equipment
- construction of a sheepfold for flocks.

3) Veterinary Teaching Hospital:

- refurbishment of the isolation unit for small animals
- improvement to the entrance to the necropsy room
- purchase of new Rx digital equipment
- purchase of a CT scanner

- purchase of two vehicles for outside teaching
- purchase of a new truck for the transport of dead animals

4) Other

- replacement of all PCs in the two computer rooms of the Faculty
- Wi-Fi covering of the Faculty didactic area
- refurbishment of the Campus canteen
- purchase of major equipment in the Departments (e.g., Leica Laser Microdissection System: Leica LMD 6000 Live Cell; Vibrating Microtome LEICA VT1000; Leica TCS SP5 Confocal laser scanning microscope; Thermocycler for in situ PCR OMNISLIDE; Ultramicrotome LEICA EM UC6; new digital photographic system for the Transmission Electron Microscope; Critical point drier, Polaron, CPD 7501; Airfuge Air-driven-ultracentrifuge, Beckman Coulter; Microscopy system LEICA for in vivo analysis; ABI 310 genetic analyzer; Haematology Analyzer ADVIA 120 Siemens; Flow Cytometer Beckman Coulter Epics XL; Biochemistry analyzer ILAB300 plus).

Main changes to the study programme

The “old” curriculum was implemented when the Faculty was revisited and approved by EAEVE. It was already consistent with principles of the Bologna Declaration (June 1999). It was organized in 5 years, for a total of 7,500 hours including theoretical and practical training. Following suggestions by the visiting team, the theoretical training was reduced and practical training substantially increased. “Orientation packages” (see also par. 4.1) were offered to students in their 5th year.

In the “new” curriculum, implemented since the Academic year 2009/2010, practical training in small groups is further emphasized since the first year, during which students are offered 59 hours of practicals focused on handling and basic management of a range of domestic species. Remarkably, there will be a final lecture-free semester for practical intra- and extramural training in different disciplines. Overall, lecture hours will decrease (-5.7%) as well as the hours dedicated to elective courses and the Dissertation work.

Important decisions made by the management of the Faculty, or by the authorities responsible for it

(2001) starting a programme of Continuing Education in Veterinary Medicine (ECM), accredited by the Italian Ministry of Health for practitioners and official veterinarians;

(2004) creating a position of Faculty Teaching Manager in order to improve the organization system of the Veterinary Curriculum;

(2007) hiring an Administrative consultant to improve the administration of the VTH;

(2008) improving substantially the amount of hands on practical work on large animals in the “old” curriculum (DM 509/1999), while waiting for the implementation of the “new” curriculum;

(2008) setting up a joint Committee with official representatives of the veterinary profession for agreed definition of a list of Practical Day One Skills.

(2010) activating a new Specialisation School in Meat Hygiene and Technology, locating it in the Piedmont “province”, as already done with the School of Animal Health, Husbandry and Production, the School of Inspection of Food of Animal Origin and the School of Swine Pathology.

Major problems encountered by the Faculty, whether resolved or not:

- shortage of support and partially teaching staff, requesting significant economic investment to ensure functioning of the VTH and provision to students of valuable practical training (not resolved, see Chapter 3);
- shortage of public funds (mainly) for research, become acute in 2009 following the global economic crisis (not resolved, see Chapters 1 and 3);
- unsatisfying admission procedure of students to the Veterinary Medicine course (not resolved, see Chapter 9).



Attestato di Certificazione
Certificate of Approval

SGQ 1564

Si certifica che il Sistema di Gestione della Qualità di:
We hereby certify that the Quality Management System Operated by:

**Università degli studi di Torino
Facoltà di Medicina Veterinaria**

Via Leonardo Da Vinci, 44 | 10095 Grugliasco (To)

è conforme alla norma UNI EN ISO 9001:2008
is in compliance with UNI EN ISO 9001:2008 standard

Settore EA | EA Code: 37

per i seguenti tipi di prodotti – processi – servizi:
concerning the following kinds of products – processes – services:

Progettazione ed erogazione di corsi di istruzione universitaria, formazione permanente e servizi agli studenti (Laurea Triennale, Laurea Specialistica/Magistrale e corsi ECM).
Planning and provision of university education courses, permanent training and services to students (Three-Year Degree, Master's Degree and ECM courses).

Il presente certificato è soggetto al rispetto delle prescrizioni contrattuali sottoscritte dall'Organizzazione.
This certificate is subject to the Contract Conditions undersigned by the Organization.

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Per l'Organismo di Certificazione

For the Certification Body

L'Amministratore Delegato

Managing Director

(Dr. Domenico Gai)

La validità del presente certificato è subordinata a sorveglianza periodica annuale ed al riesame completo del sistema con periodicità triennale.
The validity of this certificate is subject to a scheduled surveillance to be carried out once a year, as well as to a complete reassessment of the system every three years.

SGQ_Singolo_Rev.3

ACCREDITATO-ACCREDITED



SGQ N° 026A
PRD N° 026B
SGA N° 024D
SGR N° 015F

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

17 **CHAPTER 1 - OBJECTIVES**





The spacious necropsy hall



Chapter 1 – OBJECTIVES

1. FACTUAL INFORMATION

Indicate whether there is an official list of the overall objectives of the Faculty. If this is the case, please indicate these.

The University of Torino (UniTO), to which our Faculty belongs, is a non profit public institution with its own jurisdiction that, in accordance with the Italian Constitution and other applicable legislation, is autonomous and competent to make available the public service of higher education by means of teaching and research.

The general objectives of UniTO (higher education plus scientific and technological research) are shortly defined in Art. 1 of its Statute, revised on the 10th of March 2008 (<http://www.unito.it/documenti/statuto.pdf>). According to Art. 38 of the fore mentioned Statute, Faculties (13 at UniTO) and the so called “assimilated establishments” at UniTO are the structures where higher education is made available. In the successive Art. 40, tasks common to all Faculty Boards are listed, most of them regarding the teaching mission and one specifically regarding the enrolment of new teaching staff. Finally, according to Art. 59, the Departments (54 at UniTO) are the structures in charge of organizing and managing research activities.

The official overall objectives of the Veterinary Faculty of Turin, hereafter named “Faculty”, are included in the Mission Statement document, available (in Italian and English) in the Faculty web (<http://veterinaria.campusnet.unito.it/cgi-bin/home.pl/View?doc=mission.html>). In brief, they are the provision of qualified:

- higher education in Veterinary and Animal Sciences (undergraduate, continuing and postgraduate);
- basic and applied research;
- services to the veterinary profession, the general public and the Institutions.

As far as undergraduate education is concerned, the first paragraph of the Mission Statement literally states: “*The Faculty of Veterinary Medicine of the University of Turin provides education and advanced training that prepares veterinarians and scientists to serve the society in critical roles in the clinical and diagnostic veterinary medicine, public health, scientific investigation and public policy. The FVM encourages collaboration and free thought*”.

Another significant passage is the following: *“By fostering courses in veterinary medicine, animal production, biotechnology and preventive techniques in the working places and the environment, in collaboration also with other Faculties of the University of Turin, the Faculty of Veterinary Medicine stimulates exchanges among different disciplines related to animal sciences, aiming to a real multidisciplinary scientific and academic project”*.

In the same document, the specific objectives of the undergraduate education in Veterinary Medicine are listed, in accordance with the European Directive 2005/36/EU, current national legislation (Ministerial Decrees n. 509/1999 and n. 270/2004), and the EAEVE SOPs. Complementary educational objectives of undergraduate courses provided by the Faculty are also available (http://veterinaria.campusnet.unito.it/html/laurea_2livello/links_magistrale/rad.pdf) as the core component of a medium-term planning document, named RAD, which required the final approval of the competent Ministry (MIUR) based on the favourable technical advice of the Self-Evaluation Committee of UniTO and of the National University Council (CUN), the main Ministry's consulting body.

Educational objectives of the Veterinary Medicine Degree Course have recently been revised (2009) after a long and profitable collaboration with all the interested parties, in the process of planning and definition of the new curriculum of the Degree Course in Veterinary Medicine (see also par. 2.1).

Furthermore the Faculty has recently (August 2010) acquired the Certification of compliance of its quality management system to the standard UNI EN ISO 9001:2008 and is therefore engaged in a process of continual improvement of its processes. Short-term (1 year) objectives of the teaching organization of the Faculty have been defined and are available in the Faculty web (http://veterinaria.campusnet.unito.it/cgi-bin/documenti.pl/Show?_id=c878).

Who determines the official list of objectives of the Faculty?

The Mission statement has been elaborated by the Dean. The RAD of Degree courses provided at the Faculty have been elaborated by the Presidents of the respective Degree Course Councils (please, see par. 2.1). Finally, the short-term objectives of the teaching organization have been elaborated by the Internal Quality Control Committee. All documents have been in-depth discussed and amended by the Teaching Affairs Committee, where student are largely represented, and then debated and approved by the relevant Council of Degree Course (when appropriate) and/or the Faculty Board.

By what procedure is this list revised?

While the objectives listed in the Mission statement and in the courses' RADs are broad and long-lived, and need revision only in the case of significant legislation changes (which are not such infrequent in the Country), the list of short term educational objectives is subjected to revision on a yearly basis.

This process, under the responsibility of the Internal Quality Control Committee (see par. 2.1) is fully described in Section 5 of the Faculty Quality Manual and in a specific procedure (PQ 5.01 Management Review, analysis and improvement), and aims at reviewing the quality management system in order to ensure its continuous suitability, adequacy and effectiveness.

The Internal Quality Control Committee analyses inputs such as processes performance, results of internal and external audits, follow-up actions from previous Management Reviews, customer feedback and data regarding customer satisfaction, statutory and regulatory requirements. At the end of this analysis, the Internal Quality Control Committee determines the necessary actions aimed at the continuous improvement of teaching and support services and elaborates a list of objectives for the organization of teaching to be submitted for debate to the Veterinary Medicine Degree Council and/or the Faculty Board and to be reached within a year.

Obviously, the short-term educational objectives must be consistent with the general objectives of the Faculty.

Do you have a permanent system for assessing the achievement of the Faculty's general objectives? If so, please describe it

A true permanent assessment system (e.g., including a SWOT analysis and drafting of a Strategic Plan) is not available at the Faculty level. Notwithstanding, indicators of the achievement of the Faculty's general objectives are regularly measured by UniTO and by the Faculty itself.

UniTO yearly monitors the performance of all Faculties by means of its Self-Evaluation Committee, composed of experts from the University and external bodies, which evaluate five main items:

- the undergraduate teaching activity (number of courses provided, number of enrolled students, presence of foreign students, dynamics of the teaching staff,

ratios students/teaching staff, use of contracted external teachers, availability of a teaching manager, average duration of studies, drop off rate by the first-year, etc.);

- the postgraduate teaching activity (number of masters and specialization courses provided; number of PhD programs; scientific qualification of the PhD Boards and tutors; number of fellowships sponsored by UniTO and other external sources, internationalization, etc.);
- the satisfaction questionnaires of undergraduate students and PhD diplomates;
- the research activity (n° and ranking of publications, research funds raised, ratios staff/publications, ratios available funds/publications, research contracts, etc.);
- the supporting activities for the students (orientation, tutoring, psychological counselling, international mobility, job placement, economic supports and incentives, initiatives for disabled students, employment rates of young graduates, etc.);
- the administrative management (with a special focus on the financial management and the fund raising capacities of the Faculties and Departments).

A comprehensive annual report is drafted, including a comparison with other Italian Universities of similar size and an executive summary listing strengths, weaknesses and “attention points” for each of the fore mentioned main items. The document is then approved by the University Senate, and made available for discussion to the Faculties and on web (http://www.unito.it/unitoWAR/ShowBinary/FSRepo/Area_Portale_Pubblico/Documenti/R/relazione_2008.pdf). Based on the reports of its Self-Evaluation Committee and other inputs, UniTO elaborates (as per national legislation) a strategic plan with a projection of 3 years. All Faculties are bound to discuss the document.

As far as short-term educational objectives are concerned, it is the task of the Quality Control system to verify their achievement through the yearly Management Review. In order to facilitate this process, these objectives are also conveyed through measurable quality indicators that can easily be monitored. The panel of these indicators:

- the number of customer complaints
- the number of detected non-conformities
- results of the students’ questionnaires on the evaluation of teaching
- data generated from other processes of monitoring and measurement of the customer satisfaction (students’ questionnaires on the evaluation of clinical practical

activities in the VTH, of activities carried out with the Mobile Clinic, of elective practical activities, etc.)

- results of other interested parties' questionnaires (e.g., the questionnaire on teachers' satisfaction)
- data deriving from the follow-up of graduates' career.

If a planned result is not achieved, then it will be necessary to take actions in order to understand and eliminate (if possible) the causes of the failed achievement, and to redefine the objective for the following academic year.

In order to maintain the certification of conformity with the standard ISO 9001:2008, the Faculty has to submit itself yearly to an audit conducted by an external body of certification with the aim of determining, among other points, whether the process of the Management Review has been accurate and complete.

Finally, assessment of the organization and economic outcome of the services provided by the VTH is regularly carried out, since 2007, with the support of an external evaluator.

1.2 COMMENTS

Extent to which objectives are achieved

It is our opinion that the general objectives of the Faculty are currently being met to a satisfying degree.

Amongst other indicators, the main ones that we emphasize here to support the above statement are:

- the enduring interest of students of the high school for enrolment at the Veterinary Medicine course (see ratio applicants/enrolled, par. 9.1; for the academic year 2010/11, a record number was recorded with 680 applications for 120 available places);
- the amount of demanding hands on teaching activities currently provided to undergraduate students (see par. 4.1);
- the (generally) positive feed-back of questionnaires submitted to undergraduate students, young graduates, and the public - mostly veterinarians - when joining the continuing education events organized by/at the Faculty (see par. 5.1.4 and 11.1);

- the external funds raising capacity of the Departments and the Faculty itself, suggesting trust by the Institutions and privates even in a difficult economic contingency (see par. 3.1);
- the amount of “research products”, especially the articles in “peer reviewed” international journals published by most research units operating in the Departments (see par. 13.1);
- the caseload and income of the Veterinary Teaching Hospital (VTH), which mainly operates on referrals, suggesting the interest of the profession for the clinical services provided in this premise (see par. 3.1 and 7.1.5).

An additional external supervision of the achievement of major objectives by higher education establishments operating in the Country is provided by CE.N.S.I.S. (Centro Studi Investimenti Sociali – Centre for the Study of Social Investments), a major Italian research institute about socio-economic issues. CE.N.S.I.S. annually elaborates the rating and ranking of the Italian Universities including the single Faculties, based on a panel of unbiased performance indicators (<http://temi.repubblica.it/guide-universita2010/>). We were pleased that in the last six years the Faculty has constantly ranked between the 1st and 3rd position out of the 14 veterinary faculties operating in the Country.

What, in your view, are the main strengths and weaknesses of the Faculty?

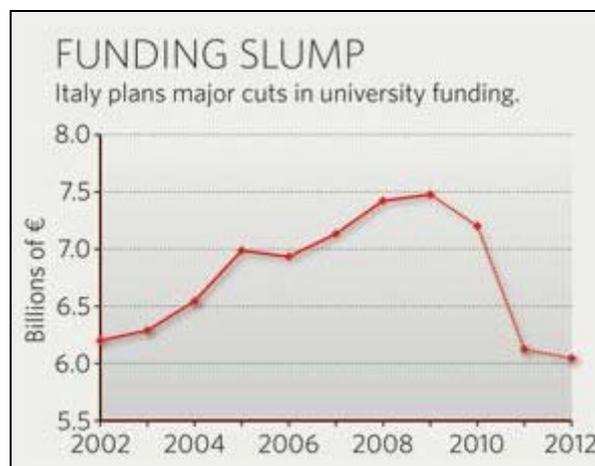
We deem that the main strengths of the Faculty are:

- operating in a geographic area (the north-west of Italy) of leading importance in the country for general socio-economic conditions;
- being part of a great University (one of the 12 universities in the country having more than 40.000 undergraduate students, therefore ranked as mega-athenaeum) enjoying good reputation at the national and international level (similarly as the Faculty, UniTO has been ranked by CE.N.S.I.S. between the 1st and 3rd position amongst the universities of similar size in the Country, between 2004 and 2010);
- the location, a dedicated agriculture-veterinary Campus in a green area in the outskirts of a large town;
- the recent (re)construction of the whole Faculty, with the provision of modern buildings, facilities, laboratories and equipment;
- the availability of services and expertise (in the VTH and the Departments) of recognized prestige at the national or international level;

- the availability of an efficient and economically viable teaching farm;
- the availability of a modern slaughterhouse operating inside the Campus, allowing in-house qualified hands-on training of the students;
- the good relationships and collaboration with the regional public veterinary services and a number of public and private institutions and associations with competence in several fields of the veterinary and animal sciences;
- the availability, since 2004, of a Faculty Teaching Manager, a skilled officer dedicated to improve the organization of undergraduate teaching provided, with implementation of quality criteria;
- the implementation, since 2008, of a teaching-oriented ambulatory clinic, permitting to overcome the objective difficulties to have farm animals at the VTH for consultation and hospitalization;
- the presence of various research units leading lines of research at the national and international level;
- the possibility for online access to a good amount of scientific journals through the
- Campus Library;
- the good relationship between students and the teaching and support staff.

On the other hand, there are some weaknesses which, in our view, are worth signalling:

- the budget difficulties related to the economic crisis that the national University system is currently facing and that, due to announced governmental cuts, will extend at least until 2012 (see attached graph, derived from Nature 2010, 466: 16). Great concern exists at the moment in all Universities across the country;



- the “chronic” shortage of support staff;
- some shortage of teaching staff, particularly of the specialists in all fields, and the related limited provision of clinical specialist training, a branch of post-graduate education that the Veterinary profession demands;
- the impossibility to have a say in the enrolment process of undergraduate veterinary students (see par. 9.1.2), resulting in a bias towards motivation for a single (and quite saturated) branch of the Veterinary profession, the one dealing with small companion animals;
- a limited recognition of the commitment and excellence in teaching once a higher academic position is available and, in general, no economic reward of both. As a consequence, the commitment to teaching of the permanent academic staff is still mainly founded on personal motivations. The same applies to recognition of responsibility roles (e.g., Director of a Department, Vice-Dean, chairing a key service at the VTH, etc.).

1.3 SUGGESTIONS

If you are not satisfied with the situation, please list your suggestions for change in order of importance and describe any factors which are limiting the further development of your Faculty

- Ideally, the competent Ministry and UniTO should provide more support and teaching staff positions, but this is quite unrealistic under the current economic crisis; in the meanwhile, income from services should be increased and (as it already occurs) used to strategically hire non tenured personnel. In this process, bureaucracy in the stipulation of contracts should not be a limiting factor (and not even a sort of nightmare) for the involved responsible teachers, as it may be the case nowadays;
- The Faculty should promote, to the best of its possibilities, the culture of evaluation and reward of teaching excellence, and should participate actively in any eventual project run at UniTO and at the national level to define parameters and strategies in this particular area; in the meanwhile, the Faculty management should include, amongst its priorities, attention to cultivate the proper atmosphere to maintain the sense of responsibility and the commitment to qualified teaching by the staff.





Practical with individual microscopes in the “Lilac building”



Chapter 2 – ORGANIZATION

2.1. FACTUAL INFORMATION

Details of the Faculty. Address of the University.

Name of the Faculty: Faculty of Veterinary Medicine of the University of Torino (“Facoltà di Medicina Veterinaria dell’Università di Torino”)

Address: Via Leonardo da Vinci 44, 10095 Grugliasco (Torino) Italy

Phone: +39 0116708681

Fax: +39 0116708682

Website: <http://veterinaria.campusnet.unito.it/cgi-bin/home.pl>

E-Mail: Presidenza di Medicina Veterinaria <presidenza.veterinaria@unito.it>

Dean: Prof. Bartolomeo Biolatti

University: Università degli Studi di Torino (UniTO), Via Verdi 8, 10124 Torino, Italy

Details of the competent authority overseeing the Faculty.

The Faculty is part of the University of Torino, founded in 1404, therefore one of the oldest Universities in Europe. UniTO is a public institution under the authority of the Italian Ministry of Education, University and Research (MIUR). The Ministry states the general guidelines for certified degrees and determines the general policy for higher education in Italy, but allows certain autonomy in university administration, and in the structure of research, teaching and organization.

The University of Torino today:

UniTO structure (2009)	
Faculties	13
Interdisciplinary university schools	9
School of Advanced Studies	1
Departments	54
Inter-university Department (University /Polytechnic)	1
Bachelor degree courses	75
Master degree courses	100

Specialization Schools	61
PhD Schools	23
Centers of excellence	3
Libraries	48
Museums	6

Academic and Research Staff (2009)		
Full Professors	615	28,8%
Associate Professors	606	28,4%
Research Associates	912	42,8%
Total teaching staff	2133	100,0%

Permanent staff in the technical-administrative area (2009)		
Executive staff	11	0,6%
Administrative staff	925	46,5%
Technicians	764	38,4%
General services staff and others	287	14,5%
Total technical and administrative staff	1987	100,0%

More information is available (also in English) at UniTO website <http://www.unito.it/>

Quantitative data on the students' population at UniTO are shown in the following Figures 2.1 and 2.2.

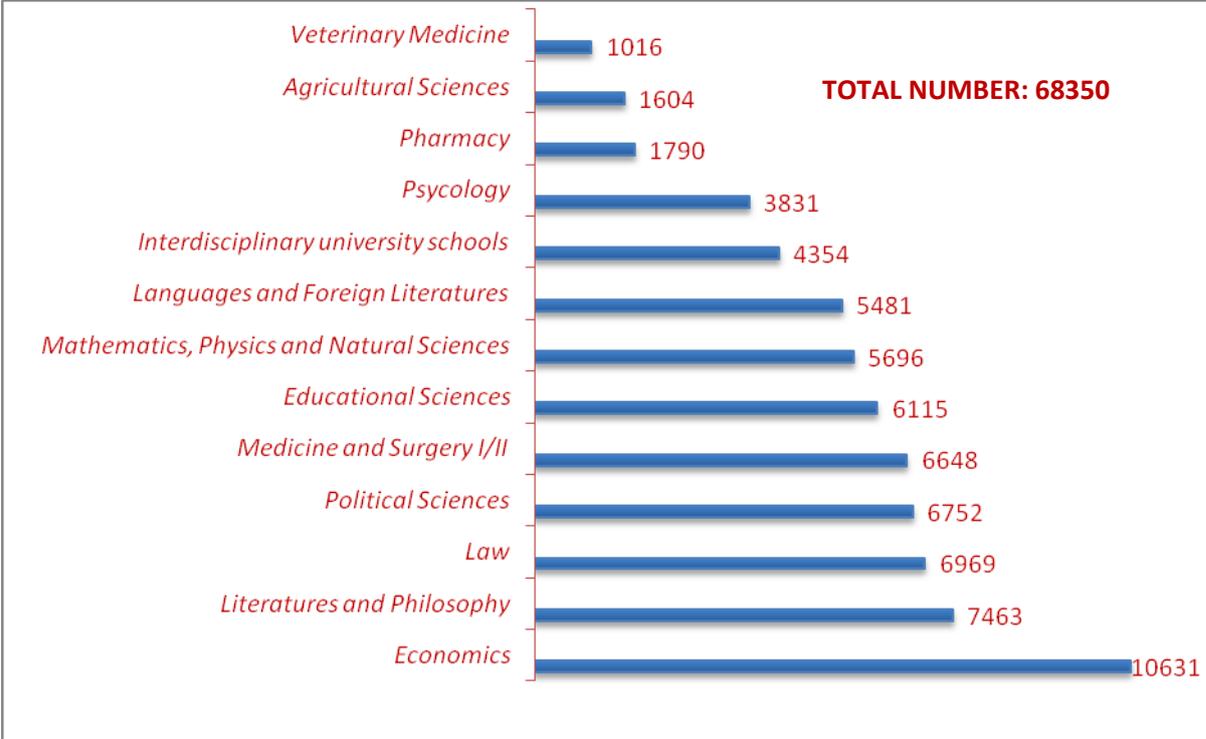


Figure 2.1 – Students registered at the 13 UniTO Faculties during the academic year 2008/2009.

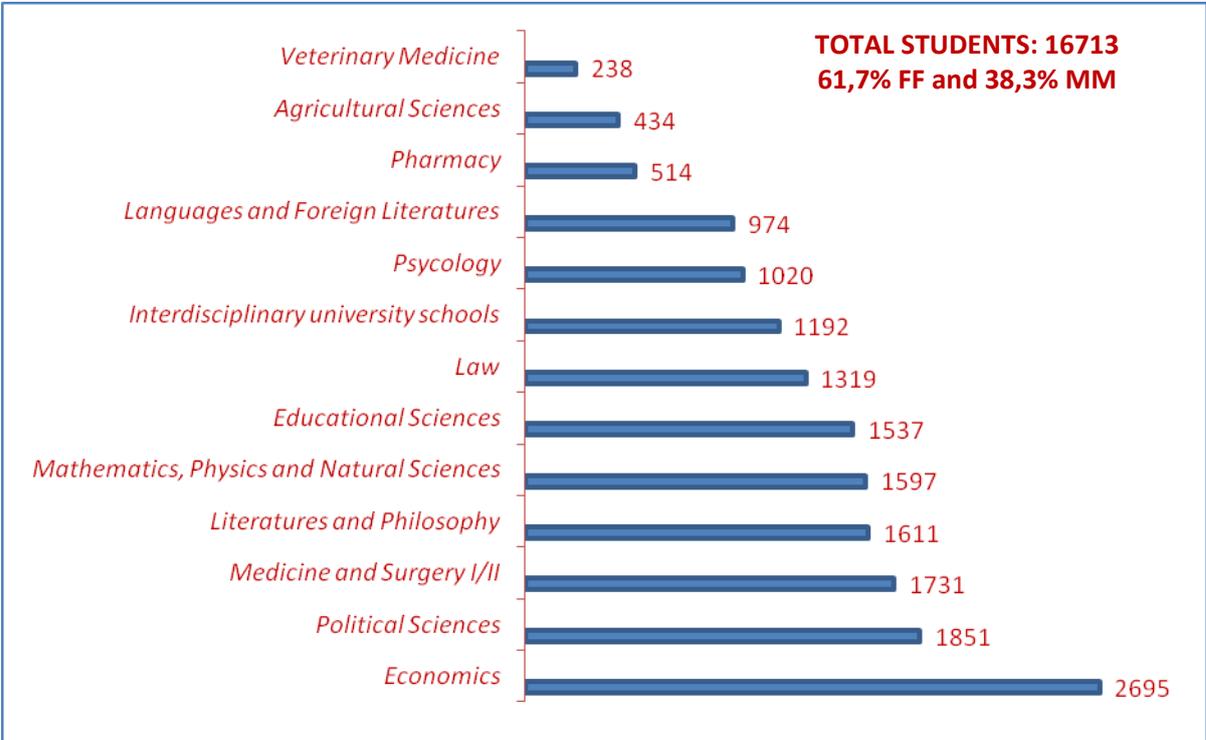


Figure 2.2 – Distribution per gender of the students enrolled for the first time in the 13 UniTO Faculties in the academic year 2009/2010.

Main authority and administrative bodies within UniTO are:

- the **Rector**, who represents UniTO and supervises all its activities. She/he nominates a Pro-Rector (a Full Professor), who can substitute her/him in any of her/his functions, in case of absence. The Rector can also nominate some Vice Rectors (chosen among the full-time teaching staff) for specific topics: finances, research, teaching, juridical affairs, students affairs, buildings affairs, personnel, international relations, public relations;
- the **University Senate (“Senato Accademico”)**, which is in charge of the political government of UniTO. It coordinates all activities and verifies their efficiency. It gives to the Administration Council the political guidelines for its action. At present, the Academic Senate of UniTO is composed of 42 members: the Rector, who acts as chairman; the Deans of the 13 Faculties; 16 full-time representatives of the teaching staff on behalf of each of 16 homogeneous areas of research; 4 representatives of technical and administrative staff; 8 student representatives on behalf of different faculties. Furthermore the Pro Rector and the Administrative Director participate without right to vote;
- the **Administration Council (“Consiglio di Amministrazione”)** which manages all the administrative, economic, financial and patrimonial aspects of UniTO. At present, the Administration Council is composed of 15 members: the Rector, as chairman; the Administrative Director of the University; 3 representatives elected by students; one representative of the Italian government nominated by the Minister of Education, University and Research (MIUR); one representative of Piedmont Region; 8 members nominated by the University Senate, two of them chosen amongst technical and administrative staff. The Pro Rector participates without right to vote;
- the **Students’ Senate (“Senato degli studenti”)**, an independent students’ organisation at UniTO. It has proposing, advisory and control tasks. It is composed by all the students voted in the University Board, in the Administration Council, in all other UniTO Councils, and by a student representative chosen amongst the students voted in each Faculty Board;
- the **Faculties**, in number of 13, whose main mission is to promote the scientific and professional development in their specific fields, and are devoted to the

organisation and coordination of the teaching activities. They are characterized by a substantial cultural homogeneity. Faculties have certain administrative and budget autonomy, along the guidelines and the finances approved by the University Board and the Administration Council. They can obtain their own external financial income from their academic activities. Each member of the teaching staff is appointed, as well as accountable, to one and only one specific Faculty. Technical and administrative staff is assigned to the Faculty by the Central Administration of UniTO. Faculties are managed by the Dean and by the Faculty Board;

- the **Degree Courses (“Corsi di Laurea”)**, which are Faculty bodies in charge of organising and coordinating all the teaching activities necessary for awarding a specific Degree (of first/Bachelor or second/Master level). Degree Courses do not have financial autonomy, but rather depend on the Faculty to which they belong. They are managed by a President and by the Council of the Degree Course;
- the **Departments**, in number of 54, which are the structures entrusted with the organisation and coordination of the research activities in one or more scientific areas. They must be substantially homogeneous from the cultural point of view and for the scientific objectives and methods. Each Department generally refers to only one Faculty. Departments have certain administrative and financial autonomy, along the guidelines and the finances approved by the Senate and the Administration Council. They can have their own financial income, which is generally obtained from research and consultancy activities as well as services provided in favour of third parties. Members of the teaching staff must choose the Department in which they want to perform their research activity. The choice must be done on the basis of scientific homogeneity with the objectives and methods of the Department. Technical and administrative staff is assigned to the Department by the University Central Administration. Departments cooperate with Faculties to implement teaching activities by providing space, equipment, expertise as well as teaching material. Departments are managed by a Director and by the Department Council.

Indicate the rules concerning the appointment of the elected officials of the Faculty (Dean, Vice-Deans, Head of Department, etc.).

- The **Dean** must be a full time Full Professor. She/he is elected by the Faculty Board and must be willing to hold this position for a three-year term. She/he may be re-elected only once.
- **Vice-Deans** are appointed by the Dean.
- The **Head of Department** must be a full time Full or Associate Professor. She/he is elected by the Department Council and must be willing to hold this position for a three-year term. She/he may be re-elected only once.
- The **President of the Degree Course** must be a Full Professor. She/he is elected by the Council of Degree Course and must be willing to hold this position for a three-year term. She/he may be re-elected only once.
- The **voted representative of the Faculty in the University Senate** must be a full time Full Professor, an Associate Professor or a Research Associate. She/he is elected by the Faculty Board and must be willing to hold this position for a three-year term. She/he may be re-elected only once.

Provide a diagram of the administrative structures showing the Faculty in relation to the university and ministerial structure of which it is part.

Please see Figures 1 and 2

Provide a diagram of the internal administrative structure of the Faculty itself (Councils, committees, departments, etc.)

Please see Figure 3

Figure 1

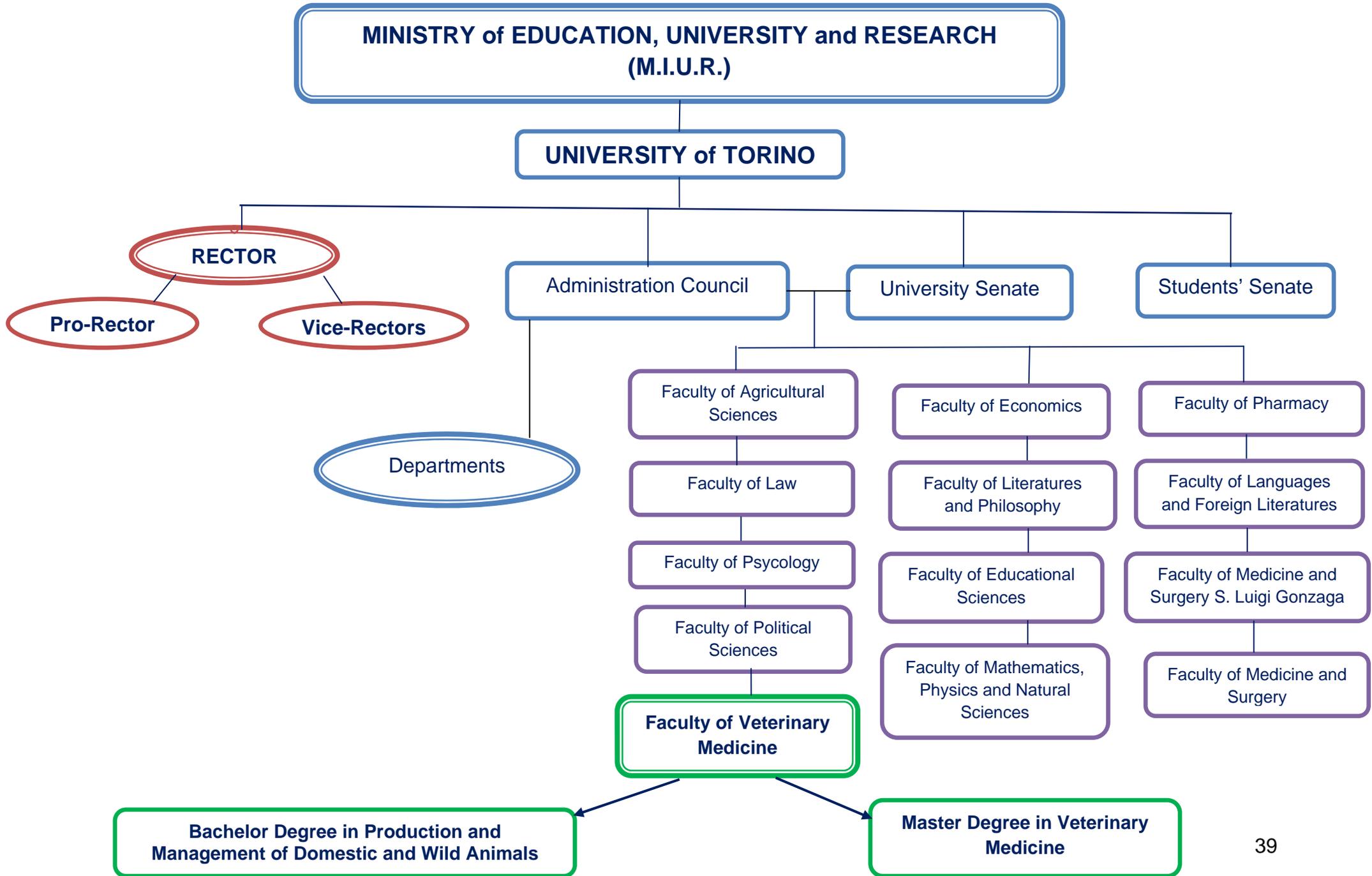


Figure 2

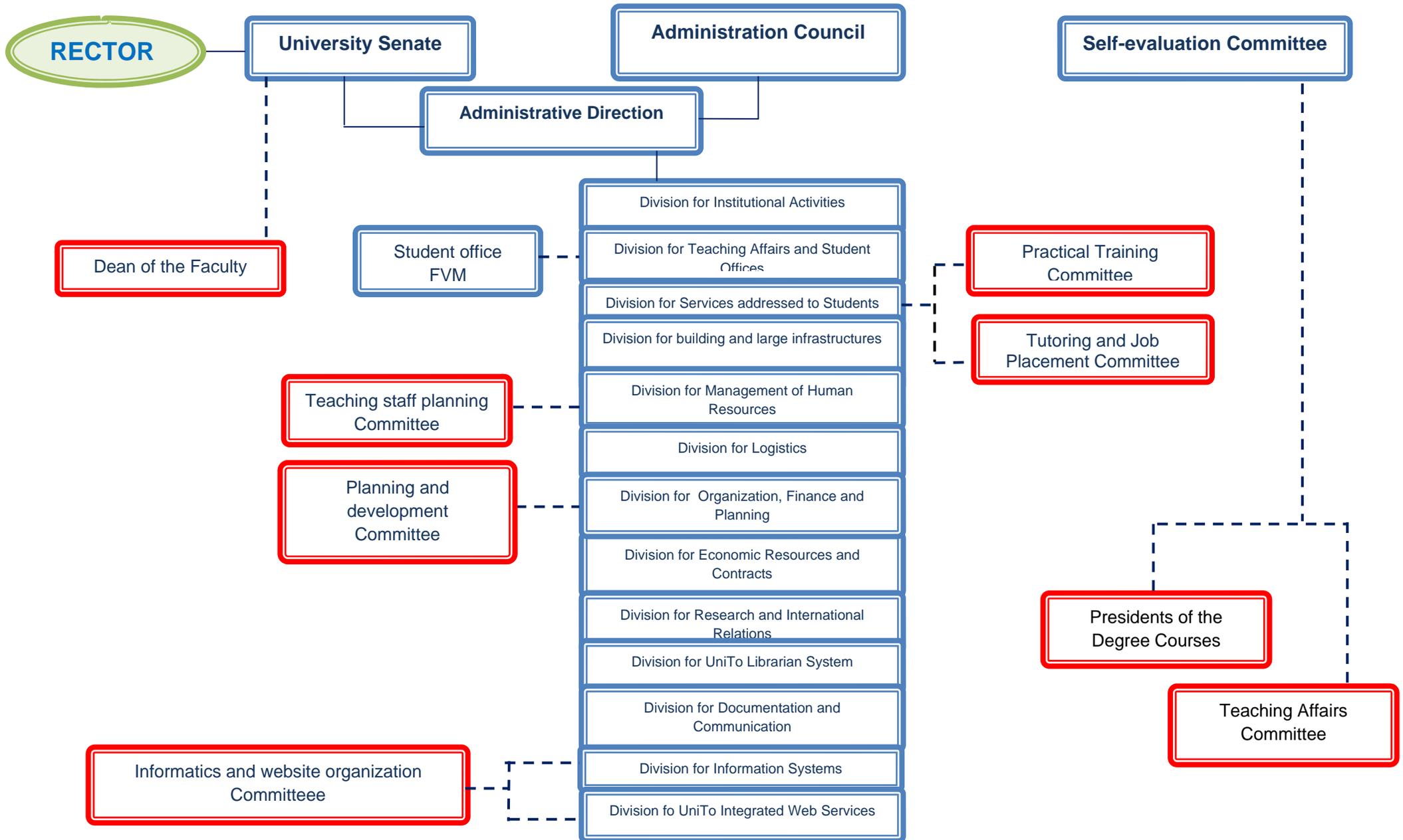
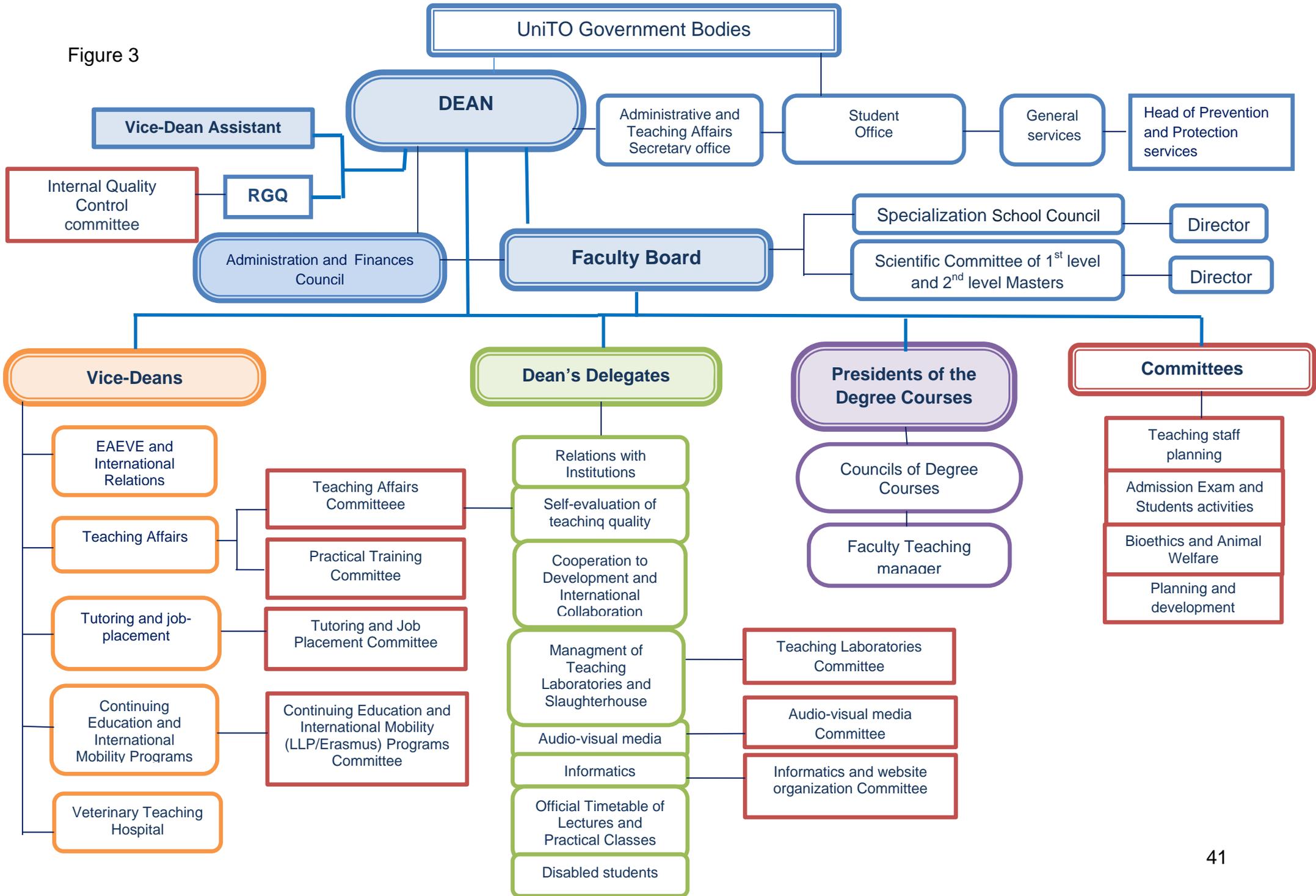


Figure 3



Describe, briefly, the responsibilities, constitution and function of the main administrative bodies (councils, committees, etc.)

THE FACULTY

The **Dean (“Preside”)** holds the highest representation of the Faculty and acts as a managing director. She/he chairs the Faculty Board. He nominates a Full Professor as Vice-Dean Assistant, who can substitute her/him in any of her/his functions, in case of absence. She/he may optionally nominate a **Dean’s Executive Team**, and this was the case at the Faculty since 2008.

The **Dean’s Executive Team** is comprised of **Vice-Deans** with delegated functions for specific activity areas. At present there are five Vice-Deans, with competence for:

- *Teaching Affairs;*
- *Tutoring and Job Placement;*
- *Continuing Education and International Mobility Programs;*
- *Veterinary Teaching Hospital;*
- *EAEVE and International Relationships.*

The Responsible for Quality Assurance is appointed by the Dean and has to guarantee the appropriate application of the procedures connected to the Quality Management System and a continuous monitoring of all the activities connected to Quality Assurance.

Furthermore, there are 10 **Dean’s Delegates** in charge of targeted operative functions, namely:

- *Audio-visual Media;*
- *Self Evaluation of Teaching Quality;*
- *Cooperation to Development and International Collaboration;*
- *Disabled Students;*
- *Management of Teaching Laboratories and the Faculty Slaughterhouse;*
- *Informatics;*
- *Official Timetable of Lectures and Practical Classes (3 delegates).*
- *Relationships with Institutions.*

Councils

There are four councils at the Faculty, namely the Faculty Board, which is assisted by the Administration and Finances Council, and two Councils of Degree Course.

The **Faculty Board (“Consiglio di Facoltà”)** is the managing and governing body of the Faculty. It is composed by all the Full and Associate Professors at the Faculty, and a proportional representation of Assistant Professors; 9 representatives voted by the students; 2 representatives voted by the technical and administrative staff. Usually, the Faculty Board meets monthly, or when deemed necessary.

The main functions of the Faculty Board are to:

- elect (eventually revoke) the Dean;
- debate and approve the general politics of the Faculty;
- debate and approve the annual budget;
- supervise the management of the Faculty;
- debate, approve and modify the Faculty regulations;
- create working commissions;
- debate and approve the proposals to UniTO for creation of new teaching posts.

Directly functional to the Faculty Board is the **Administration and Finances Council (“Consiglio di Gestione”)**, which has the responsibility to propose the distribution of the annual budget and submit it for approval to the Faculty Board. It is made up by the Dean, the Administrative Secretary, 3 representatives of the teaching staff, 2 student representatives and one representative voted by the technical and administrative staff.

The **Councils of Degree Course (“Consigli di Corso di Laurea”)** have the task to plan, organise and coordinate all teaching activities related to awarding a specific degree. Each Council is chaired by a President, and is composed of: all the Full, Associate and Assistant Professors who have official teaching assignments in that Degree Course; representatives voted by the students; 1 representative voted by the technical and administrative staff assigned to the course. There are two Councils of Degree Courses at the Faculty, which are respectively competent for:

- *the Master Degree in Veterinary Medicine (5-year diploma);*
- *the Bachelor Degree in Production and Management of Domestic and Wild Animals (3-year diploma).*

Committees

To improve the planning, assessment and operative management of different activities, the Faculty Board appoints 12 Delegated Committees which analyse and propose solutions for problems arising in the areas of their competence.

Four committees treat the bulk of the most delicate responsibilities related to teaching, namely:

- **Teaching Staff Planning Committee (“Commissione Organico”)**. This committee, chaired by a President voted by the Committee, is composed by 15 representatives of the teaching staff (one from each scientific area, acronym SSD). It has the main function to propose to the Faculty Board the creation of new teaching positions following the general guidelines stated by MIUR and UniTO;
- **Teaching Affairs Committee (“Commissione Didattica”)**. This is a joint committee composed by 16 members: the Vice-Dean in charge, as chairman; 6 representatives of the teaching staff elected by the Faculty (including the Presidents of the Degree Courses offered by the Faculty); 7 students’ representatives elected to the Faculty Board; the Faculty Teaching Manager; the Dean’s Delegate for the Self-Evaluation of Teaching Quality. Broadly, this Committee has the main function to present for debate - to the Councils of Degree Course and/or the Faculty Board, according to needs - opinions and solutions dealing with the planning, provision and monitoring of teaching activities.
- **Practical Training Committee (“Commissione Tirocinio”)**. The composition is: Vice Dean for Teaching Affairs, as chairman; 3 representatives of the teaching staff, each in charge for different areas of training activity; 4 students’ representatives; the Faculty Teaching Manager. Its main task is to presents for debate - to the Teaching Affairs Committee, the Councils of Degree Course and/or the Faculty Board, according to needs - opinions and solutions dealing with the organization, implementation and monitoring of the intra- and extra-mural practical training activities of students;
- **Internal Quality Control Committee (“Commissione Sistema Gestione Qualità”)**. It is chaired by the Responsible for Quality Assurance of the Faculty. The other members are the two Presidents of the Degree Courses offered by the Faculty, the Vice-Deans for Teaching Affairs, Tutoring and Job Placement, Continuing Education and International Mobility Programs, EAEVE and International

Relations; the Dean's delegate for Self Evaluation of Teaching Quality and the Faculty Teaching Manager. This committee has the mission of carrying out all the processes connected to the monitoring, measurement, analysis and improvement of the quality management system and its compliance to the standard ISO 9001:2008. It determines all the necessary preventive and corrective actions in order to monitor and keep under control the quality management system and ensure its continuous suitability, adequacy and effectiveness. At planned intervals, the Committee carries out the Management Review and organizes internal and external audits to verify whether the System is effectively implemented and maintained. As far as the quality of teaching and support services are concerned, the Committee has advisory functions in the evaluation and planning of the formative offer and in carrying out and monitoring the formative projects.

The remaining 8 Committees (though precious) are mainly operative, on behalf of the Faculty Board. They deal with:

- ***Tutoring and Job Placement*** (please see also later in par. 2.1, and par. 5.1.5);
- ***Admission Exam and Students' Activities;***
- ***Planning and Development;***
- ***Bioethics and Animal Welfare;***
- ***Teaching Laboratories;***
- ***Informatics and Website Organization***
- ***Continuing Education and International Mobility (LLP/Erasmus) Programs***
- ***Audio-visual media.***

Other bodies

The Faculty also has an **Administrative Office** (responsible of coordinating and carrying out all the administrative and accounting activities) and a **Teaching Affairs Secretary Office** (responsible for supporting the management of the Faculty in planning and monitoring teaching activities).

THE DEPARTMENTS

Three Departments are present at the Faculty. The following table illustrates their names, the core subjects of competence and the name of the respective Heads.

DEPARTMENT	CORE SUBJECTS	HEAD OF THE DEPARTMENT
VETERINARY MORPHOPHYSIOLOGY	Anatomy Physiology Biochemistry Basic Subjects	Prof. Mario BARATTA
ANIMAL PATHOLOGY	Pathological Anatomy Clinical Medicine Surgery Obstetrics Pharmacology and Toxicology Food Hygiene and Technology	Prof. Leila VINCENTI
ANIMAL PRODUCTION, EPIDEMIOLOGY AND ECOLOGY	Animal Production Animal Husbandry and Welfare Animal Nutrition Genetics Epidemiology Microbiology and Infectious Diseases Parasitology and Parasitic Diseases	Prof. Domenico BERGERO

The **Head of Department (“Direttore di Dipartimento”)** holds the highest representation of this structure and is responsible for its management and organization. She/he chairs the Department Council. She/he nominates a Full or Associate Professor as Vice-Head Assistant, who can substitute her/him in any of her/his functions, in case of absence.

The **Department Council (“Consiglio di Dipartimento”)** is the managing and governing body of the structure. It is composed by all the Full, Associate and Assistant Professors at the Department, and a variable number of representatives of the support staff, the PhD students and the Post-doctoral students. Usually the Department Councils meet at least once every two months, or when deemed necessary.

The Department Council votes the **Department’s Executive Committee (“Giunta di Dipartimento”)**, whose main function – in spite of the name in English - is to propose to the Council, for debate and approval, opinions and solutions on selected points of the organisation and management of the structure. It is composed of the Head of Department, a variable number of Professors (3 to 9) and one representative of the support staff, assisted by the Department Administrative Secretary.

No other Committees are present in the Departments, with the remarkable exception of the **Veterinary Teaching Hospital Committee (“Commissione Ospedale”)**, created by the Department of Animal Pathology of which the VTH is part. This Committee, recently renovated in its composition, includes the Head of Department (which has also function of Sanitary Director) or her/his Delegate, the Vice-Dean for Teaching Affairs, 7 voted Professors operating in the VTH, a representative of the support staff and the Department Administrative Secretary. A President is voted by the Committee members. The main functions are to analyze problems and propose solutions on selected points of the organisation and management of the structure, with special attention on items related to the teaching mission. It strictly cooperates with the Teaching Affairs Committee and the Practical Training Committee.

For details on the functions of all Councils, Committees and other bodies mentioned in this Chapter, please see also:

- the Statute of University of Torino:
(http://www.unito.it/unitoWAR/ShowBinary/FSRepo/Area_Portale_Pubblico/Documenti/S/statuto.pdf),
- the University Teaching Regulations:
(http://www.unito.it/unitoWAR/ShowBinary/FSRepo/Area_Portale_Pubblico/Documenti/N/norme_comuni.pdf),
- the Faculty Teaching Regulations:
(http://veterinaria.campusnet.unito.it/html/organizzazione/regolamento_didattico_facolta.pdf).

Indicate the involvement of the veterinary profession and general public in the running of the Faculty

Although the veterinary profession is not officially involved in any government bodies of the Faculty (nor this could happen, based on UniTO guidelines on their composition), the veterinary profession has regularly had its say, in the last decade, on important facets of the Faculty's life.

Amongst recent official (and traceable) involvements, the following are worth mentioning due to their impact on teaching quality aspects:

- the audits (as per national legislation) when the new curriculum of the undergraduate courses provided by the Faculty was developed. In particular, as far as the Master Degree in Veterinary Medicine is concerned, the bodies audited were the local Veterinary Chambers (in Piedmont, Liguria and Aosta Valley), the

Piedmont Regional Veterinary Public Health Services, the local Istituto Zooprofilattico Sperimentale (a reference diagnostic and research institute of the National Health System), leading scientific societies and professional associations;

- the participation of practitioners and public veterinarians (appointed by the local Veterinary Chambers) to a joint “working table” with members of the teaching staff, aimed to write a comprehensive list of the Day One Practical Competences that the Faculty commits itself to provide to the veterinary students of the new curriculum. The “working table” met frequently for approximately a semester, in 2008. The demanding output was a document now available on the web (http://veterinaria.campusnet.unito.it/html/laurea_2livello/dayone.pdf), following a review to allocate the skills to the most appropriate courses, facilities and practical training sessions (e.g., rounds in the Mobile clinic, in the Emergency Service at VTH, etc.). The logbooks of first- and second-year students have been already designed based on this document;
- the participation of invited “old” and “young” veterinarians of the different branches of the veterinary profession to scheduled meetings with the students, to transmit them their vision about working opportunities in the different branches and the difficulties related to starting the professional work. These participated meetings, in number of one per year, are organized and chaired by the Vice-Dean for Tutoring and Job Placement (see also par. 5.1.5);
- the now frequent involvement of experienced colleagues (either hired or volunteers) in a range of teaching activities, such as lectures, seminars, the Emergency Service for farm animals, visits by the Mobile Clinic, extra-mural training, etc. (see also Chapter 7).

Another important event in which the veterinary profession has obviously its say is during the **State Exam (“Esame di Stato”)**, that graduates have to pass, according to national legislation, to have access to the profession (see also par. 5.1.3). Comments by colleague participating to the board of examiners are taken seriously into account to improve the concreteness of the teaching provided.

Additional inputs from the professional world is conveyed to the Faculty through contacts of the academic staff with representatives of the Chambers and professional associations during the frequent meetings and round tables organized in the Country and dedicated to “the future of veterinarians”.

2.2. COMMENTS

Add any comments on the organization and functioning that you feel useful for completing the description

In recent years the Faculty has committed itself to follow a path of quality assurance in order to improve its organization and address its services to the needs and expectations of all interested parties, and their satisfaction.

In 2004 the Faculty participated to a project of the Ministry of Education, University and Research (MIUR) called “CampusOne” aimed at introducing the principles stated from the ENQA report on Standard and Guidelines for Quality Assurance in the European Higher Education Area in the formative projects and the operative organization of the different faculties involved.

Afterwards the Faculty also participated to a selection of professionalizing degree courses to obtain the attribution of financing deriving from European funds, and its project turned out to be the best one among all the submitted proposals. The allocation of funds was bound to the acquisition of a Regional accreditation for the evaluation of the quality of the structure and of the teaching activities.

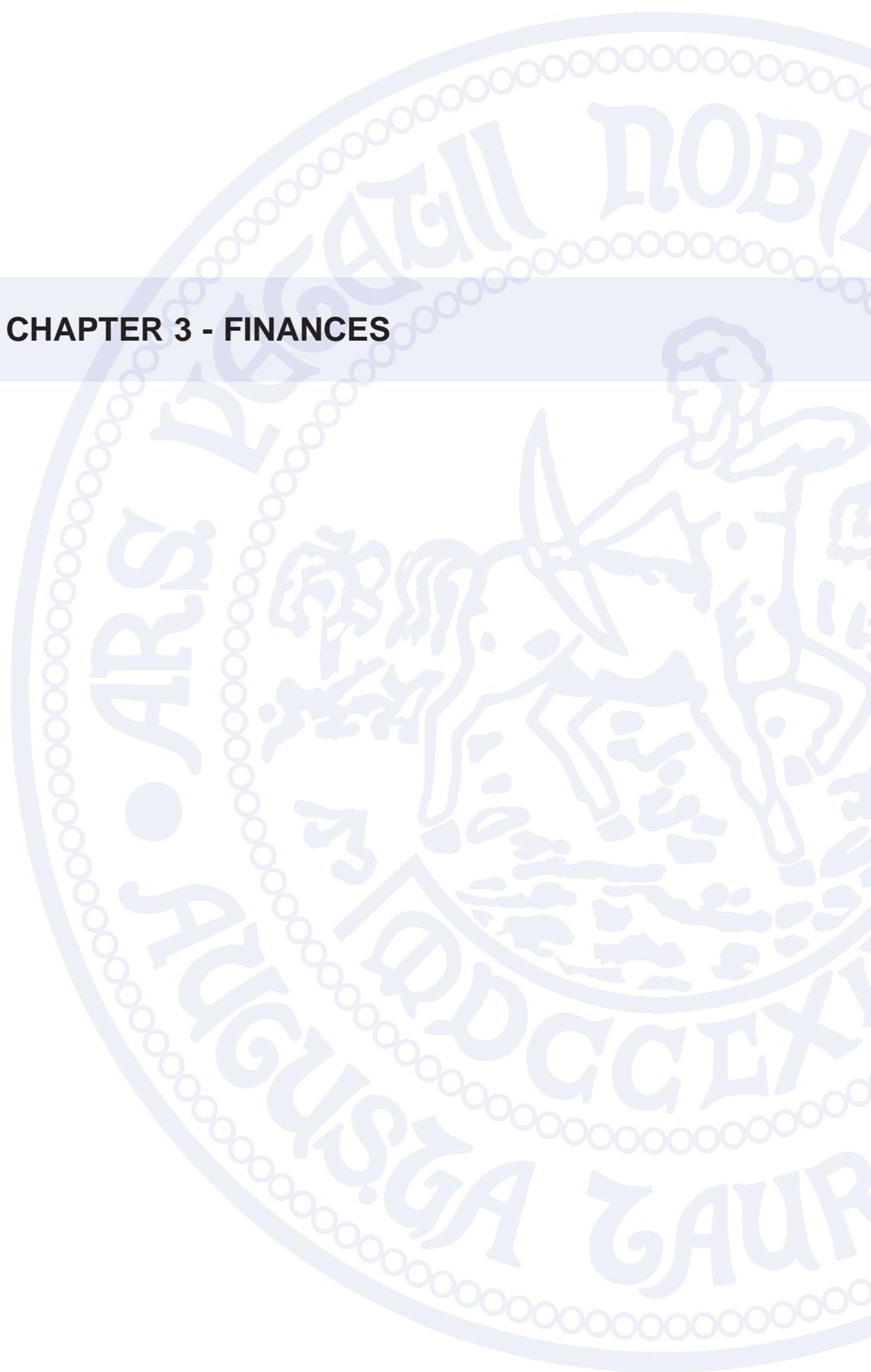
At the end of the above mentioned project, based on the Regional accreditation and financed with EC funds, the Faculty decided to acquire the Quality assurance certification according to the standard UNI EN ISO 9001:2008 and the process of certification was completed in August 2010 with a positive outcome.

The Quality Management System for “planning and provision of university education courses, permanent training and services to students” is now certified to be in compliance with the above mentioned standard.

2.3. SUGGESTIONS

If you are not satisfied with the situation, please list your suggestions for change in order of importance and describe any factors which are limiting the further development of your Faculty.

No suggestion.





Practical of Anatomy



Chapter 3 - FINANCES

3.1 FACTUAL INFORMATION

The financial data presented in this chapter (see also Annexes 3.1 to 3.6) keep into account that the budget allocated to teaching is managed by the Faculty (*sensu* Dean's Office), while: i) research funds and most services are managed by the Departments; ii) other services are managed by the Teaching and Experimental Farm; iii) the general expenses are directly covered by UniTO (Table 3.1). If not differently specified, the term "Faculty" will be meant here (as elsewhere in the SER) in its broad sense.

Table 3.1 - General expenses (€) of the Faculty covered by UniTO between 2007 and 2009.

Item	Year		
	2009	2008	2007
Heating	169,655	248,837	258,105
Water	13,532	39,472	33,758
Electricity	154,296	234,215	184,536
Cleaning	162,857	154,383	90,141
Security service	14,755	4,567	7,355
Maintenance of facilities	169,088	192,252	127,422
Total	684,185	873,728	701,320

3.1.1 General Information

Indicate whether the Faculty's current financial model (system) meets the Faculty's mission.

In the last decade, despite the sub-optimal higher education policies at the Country level (recent OCSE statistics clearly show that Italy is amongst the EU countries with the lowest *pro capite* investment in the area), the available financial model has allowed the Faculty – which is part of a State-funded University - to achieve the macro-objectives announced in its mission statement. In general terms, the budget has been compatible – to an acceptable extent - with all objectives indicated in Annex I of the EAEVE SOPs, viz:

- performing adequate research based teaching;

- attracting and retaining highly qualified academic and support staff to reach, or exceed satisfactory teaching staff/student and teaching staff/support staff ratios;
- ensuring provision and renewal of up to date teaching (including IT) facilities, laboratory and clinical equipment (including vehicles for the ambulatory clinics);
- ensuring teaching and clinical training in premises with adequate hygienic and safety standards;
- ensuring adequate intramural clinical training by securing an adequate caseload, including emergencies, across animal species and adequate provision of stationary and ambulatory (mobile) clinical services, according to the most recent advances in veterinary medicine.

Evidence of the above statements has been provided, to the best of our capabilities, in the different chapters of this report.

Undeniably, recruitment of highly qualified support staff, and to a lesser extent of academic staff with expertise in some areas of specialization, is the item where a greater a gap still exists between the *status quo* and the Faculty's expectations (see also par. 9.3). Furthermore, due to obvious prioritisation of investments towards improvement of undergraduate teaching at the Faculty, very limited funds have been available for clinical postgraduate students.

How the allocation of funding (including public funding) to the Faculty is determined, and by what body. If the allocation of funds, or any significant proportion of it, is linked to a particular factor (e.g. student numbers, research output), please describe this.

The Faculty receives funds from:

- the University of Torino;
- users of the services provided;
- any other sponsoring source.

Ordinary funds made available by UniTO (and by the competent Ministry through it) represent the bulk of the Faculty budget. The flow leading to allocation of these public funds to the Faculty may be summarised as follows:

- the Italian Ministry of the University for Education, University and Research (MIUR) determines the allocation of funding to Universities. This is based – within the available State budget - on a range of parameters which would be far beyond the

scope of this chapter to illustrate. Nevertheless, it is worth stressing that quality parameters of research and teaching, historically ignored, are now (yet timidly) considered for allocation of resources to Universities. Staff wages account for approximately 84% of the budget that the Ministry has allocated to UniTO in the last three years;

- UniTO is in charge of directly paying the staff wages, hence these funds are not transferred to faculties;
- the remaining 16% of funds from the Ministry contributes, with the tuition fees paid by the students and directly cashed by UniTO, to determine the true budget that UniTO will assign to faculties. This budget has been roughly composed, in recent years, of 45% funds from the Ministry and 55% funds from the tuition fees;
- the budget for ordinary functioning of the Faculties (“Fondo di finanziamento ordinario”, acronym FFO) is transferred, separately, to the Faculty (*sensu* Dean’Office) and the Departments;
- allocation of the FFOs is the responsibility of the University Senate. In general, the number of students is the main parameter for allocation of the budget to faculties (*sensu* Deans’ Offices), while the number of staff members is the main parameter for Departments’ funding. The different cost of training is also taken into account (see later in this chapter) as a correction parameter. Opinions supporting a finer tuning of funding allocation are slowly but progressively given more attention (e.g., higher consideration of research output by the Departments).

UniTO may also assign to faculties **extraordinary funds** for special needs related to improvement of the teaching quality, refurbishment of facilities, purchase of new equipment, significant initiatives and events, etc. In the last five years, the Faculty has received from UniTO remarkable funding for a number of initiatives (see a comprehensive list in the Introduction).

Finally, UniTO ensures – on a regular annual basis – funding of a small number of grants for PhD students and post-docs (in 2010, 3 grants were assigned to the only veterinary-oriented PhD program available, and other two grants were advertised for post-docs). This kind of investment by UniTO is clearly suffering, more than other items, of current economic breakdown.

Payment for **provision of services** is immediately available to the providing centers, after deduction of a quota for UniTO (when applicable, see par. 3.1.2). In the case of the Dean’s

Office, main funding is from continuing education events and post graduation schools, whereas clinical services provided at the VTH are cashed by the Department of Animal Pathology. Advisory and editorial activity is carried out at all Departments. Part of the money generated through service provision can be destined to the academic and support staff, as incentive. In 2009, replacement of all PCs in the computer rooms (“Laboratori Informatici”; “lilac building”, see par. 6.1) has been carried out with funds deriving from tuition fees of the Schools of Specialization.

Finally, **public and private sponsors** contribute to UniTO and the Faculty budgets. As a broad figure, 50% of the budget of UniTO derives from this source. In the last years, the Faculty has enjoyed external funding for a series of initiatives as follows (sponsors in brackets; overall, 700.000 € approximately):

- purchase and equipment of a mobile unit for outside (farm) teaching (Bank);
- construction, equipment and functioning of the new kennel (Grugliasco Municipality and Piedmont Regional Government);
- functioning of the Mobile Clinic (Piedmont Regional Government);
- functioning of the 24/7 Emergency Service at the VTH (Foundation).

A significant part of the Dean’s Office budget (in year N, 33.9% of incoming funds with the exclusion of stipends; see Annex 3.3) is used to support the rising need of skilled veterinary personnel for practical hands-on training of students at the VTH (including the Mobile Clinic), the Teaching and Experimental Farm, the Faculty kennel, the Faculty slaughterhouse and the International Equine Centre.

Fund raising for research is usually the merit of the research groups operating in the Departments, when they are successful in international, national and local competitions, or when they are commissioned targeted research by companies and other agencies. A significant role in research funding during the last decade (at least before the recent economic breakdown) must be acknowledged to the Piedmont Regional Government.

How the basis for funding the Faculty compares with those teaching other courses (e.g. whether veterinary training receives a higher budget weighting compared to other disciplines).

When allocating the ordinary funds to faculties, UniTO takes into account the higher training costs of students enrolled in certain Degree courses. Though the compensation index is not a fixed one and may be annually the object of debate, veterinary training is

recognized as the one deserving more *pro capite* funding. In the last years, the compensation index used has ranged between 1.4 and 1.5, being 1 the pro capite budget assigned for training of a Humanities student. UniTO itself is aware that this is not sufficient, and contributes additionally by allocating extraordinary funds to “teaching improvement “ projects submitted by the Faculty.

How the allocation of funds within the Faculty is decided.

The allocation of ordinary funds channelled to the Faculty by UniTO is the responsibility of the Faculty Board and the Departmental Councils, for the respective budgets. These bodies are in charge of debating and approving the annual preventive balance and deliberate on any possible deviation. In the case of ordinary funds allocated to the Dean’s Office, successive management per expenditure item (e.g., hired teachers, consumables, transports, teaching material, etc.) is delegated to the internal Administration and Finances Council (see par. 2.1). In debating the balance, the Faculty Board takes in due account the advice of the Teaching Affairs Committee, which is in charge of a preventive annual recognition of teaching-related needs by all teachers. In the case of shortage of resources for certain activities (e.g., during the incoming academic year, poor budget will be available for coach rental aimed to external visits in large groups), this Committee is requested to mediate and propose the best available solutions. Extraordinary funds are allocated to the activities in support of which they have been granted.

What are the mechanisms for funding major equipment and its replacement?

A significant part of major equipment at the VTH, the teaching laboratories (“lilac building”), the Teaching and Experimental Farm, the Faculty slaughterhouse and the Campus Library was funded when the Faculty was relocated at the Campus of Grugliasco, thanks to extraordinary funding assigned by UniTO. Other major (new or replacement) equipment for teaching and research was purchased in years thanks to external private or public sponsors, research funds and additional extraordinary funding by UniTO. As regards the last option, a dedicated fund (“Fondo Grandi Apparecchiature”) was available until 2007 (http://www.unito.it/unitoWAR/page/istituzionale/ricerca1/Ricerca_apparecchiature1), and an annual call for proposals was held. In recent years, rising budget difficulties at UniTO (and all public Universities in the Country) has determined the suspension of this expenditure item.

Currently, external funding (including public funding of research projects of major national and international relevance), the use of self-generated income or a combination of both are the only means of purchasing/replacing major equipment.

The mechanism(s) for funding capital expenditure (e.g. building work, major items of equipment) and how decisions are taken in this matter.

Construction of new buildings is regulated by the University Building Plan (“Piano Edilizio”) and depends on the needs of all faculties at UniTO. When necessary, the Dean – on behalf of the Faculty Board – submits a proposal to UniTO management, which evaluates all requests advanced by the different University centres and decides which infrastructural projects can be charged to the annual Building Plan, depending on priorities and budget availability. Recently (spring 1010), a new barn was built at the Teaching and Experimental Farm and all costs were covered by UniTO. In general, time elapsing from proposal to completion of building works is quite long (6 years in the case of the fore mentioned barn).

The mechanism(s) to provide the necessary support for building maintenance and how decisions are taken in this matter.

The Centre for the Management of Services (“Centro Gestione Servizi”) at the Campus is the University office in charge of ordinary and extraordinary maintenance of the Faculty buildings and facilities. The expenses are covered by UniTO following approval of an annual budget prepared by the Centre. Needs for extraordinary maintenance works are signalled to the Centre by the Dean and the Directors of the Departments.

Funds invested in maintenance of the Faculty buildings and facilities in the last three years are reported in Table 3.1. They are not sufficient for all necessary maintenance work (see par. 6.2), hence a priority is given to urgent or safety-related works.

3.1.2 INFORMATION ON EXTRA INCOME

What percentage of income from the following sources does the Faculty have to give to other bodies (university, etc.)?

- clinical or diagnostic work:
- research grants:
- other (please explain):

A part of the income from services must be returned to UniTO. Deduction, in percentage of the income, is the following:

- 7 % for clinical services;
- 7 % for diagnostic services;
- 2 % for external (advisory) services;
- 7% for rent of the Faculty slaughterhouse to an external operator (see par. 6.1.6).

Furthermore, a fixed deduction of 301€ is operated by UniTo on the enrolment fee paid by students admitted to Specialization Schools.

No deduction in favour of UniTO is applied to income deriving from:

- research grants/projects;
- payment of the inscription fee (70 € in 2010) by applicants to the admission test to the Veterinary Medicine course;
- selling live animals raised at the Teaching and Experimental Farm;
- selling the meat and other transformed products of the animals raised at the Teaching and Experimental Farm and slaughtered in the Faculty slaughterhouse.

Please indicate whether students:

- Pay tuition/registration fees,
- How much these are,
- How they are decided,
- How the funds are distributed.

At UniTO, all students have to pay a tuition fee, which is similar for all Degree courses provided. The amount is based on the family income of the individual students, leading to the contribution classes illustrated in Table 3.2. Fixing and updating the amount of tuition fees is the sole (and delicate) responsibility of the University Senate. Fee payment is currently requested to students in two yearly instalments. Funds deriving from tuition fees at all Degree Courses are cashed by UniTO, then added to funds made available from the competent Ministry and returned to the faculties in the form of their assigned FFOs (see

previous parts of this Chapter). According to national legislation, income from tuition fees paid by the students cannot exceed the 20% of the University FFO.

Table 3.2 – Yearly tuition fee that UniTO undergraduate students had to pay in the last two years, according to their family income.

Contribution class	Yearly amount (in €)	
	Year 2009/2010	Year 2008/2009
1	304	300
2	658	650
3	961	950
4	1.214	1,200
5	1.316	1,300
6	1.518	1,500
7	1.904	Not applicable

The total amount of fees paid for by the students of the Veterinary Medical Degree Course is about 70 % of the total fees paid by all students present at the Faculty.

3.1.3 OVERVIEW INCOME (REVENUE) AND EXPENDITURE

Table 3.3: Income/Revenue

Year	State (government)		Income generated by the Faculty		Total
	To university administered outside the Faculty	Direct to Faculty	Income from services provided	Research	
N*	9,269,410	954,487	1,535,485	1,096,752	12,856,143
N-1	8,600,294	1,314,130	1,523,784	1,340,032	12,778,240
N-2	8,056,812	1,391,525	1,625,782	1,340,032	12,414,151

*year prior to visitation

Based on Table 3.3, income from services provided at the Faculty accounts for the 12.3% of the incoming funds.

Table 3.4: **Expenditure**

Year	Pay	Non Pay				Total
	Salaries	Teaching support	Research support	Clinical support	Other ¹⁾	
N*	9,269,410	274,583	1,837,461	394,123	327,551	12,103,128
N-1	8,600,294	285,211	2,006,012	318,586	367,699	11,577,802
N-2	8,056,812	274,958	1,558,226	346,286	354,251	10,590,533

*year prior to visitation, ¹⁾ expenses for the functioning of the Faculty and Library

Expenditure for salaries of teaching and support staff represent the main expenditure item (75.6%) of the Faculty budget. The cost of teaching and research support represents 10% and 64.7%, respectively, of the total amount of expenses with the exclusion of salaries.

More details on income and expenditure at the Faculty are available in Annexes 3.1 to 3.6. Compared with 2005, in 2009 considerably less operative funds (-62.9%) were channelled by UniTO to Departments. This breakdown was partly compensated by the increased income from the services provided, and by the research grants obtained from external sources (+13%).

The training cost of a veterinary student at the Faculty may be approximated from data in Annex 3.3. For the aims of the estimate, all expenditures related to undergraduate veterinary training were summed, then divided per the number of veterinary students enrolled in the corresponding year. In the last five years, estimated training costs were the following:

Year	2005	2006	2007	2008	2009
€/student	8,686	8,779	8,515	9,225	9,675

Based on these estimates, the tuition fees paid by the students clearly cover only a limited part of the training cost.

3.2 COMMENTS

Teaching establishments never have enough finance. Please comment on any of the “Guidelines and Requirements” that are particularly difficult to fulfil in the present financial situation. Please make any comments that you feel would help the experts concerning the Faculty’s finances.

Please, see par. 3.1.1 for a general comment and the point of relative shortage of staff, and par. 3.3 for possible individual conflict between time-consuming fund raising activity to support research, and the poorly academically recognized commitment to teaching. Furthermore, it would be desirable that:

- the high cost of veterinary undergraduate training could be allocated, to a much higher extent than is currently the case, to the ordinary funding (FFO) channeled to the Faculty. It is a matter of fact that training costs are raising and that they are increasingly covered with external sponsoring and extraordinary UniTO channeled funds, obtained following uncertain (even in the medium term) pathways;
- the Faculty could enjoy (some) financial autonomy in planning and implementing urgent maintenance work, e.g. the dirt road network in the Campus, and students’ welfare related work, e.g., the air conditioning system in all lecture rooms .

What is your number one priority for the use of any increased funding?

Should any increased (public) funding become available - a scenery which is frankly unrealistic at the moment (see also par. 1.3) - the following two points would be given an absolute priority:

- increasing the number of permanent support staff to support teaching, research and services provision in the different areas;
- substantially increasing the availability of residency and post-doc scholarships (see also par. 12.3).

Comment on the degree of autonomy and flexibility available to the Faculty in financial matters.

Financial autonomy available to the Faculty is real but also limited to ordinary functions, hence to a small part of the budget necessary to run all its activities and maintain/improve its building patrimony. More autonomy (at least) on occasion of urgent building

maintenance works would be welcome. Flexibility in financial matters is sufficient, and changes in balance are possible, with rare exceptions. Unfortunately, bureaucracy is becoming increasingly heavy as regards the contracts for tutoring of students during practical training periods at the VTH or in outside facilities.

Comment on the percentage of income from services that the Faculty is allowed to retain for its own use, and in particular on the extent to which loss of this income acts as a disincentive for the services concerned.

In the current financial model, important areas of expenditure are centrally managed and paid by the University, and the Faculty only receives these services and goods. Under these circumstances, it is acceptable that UniTO may impose deductions on the income from services provided by the Faculty. So far, loss of income due to deductions in favour of UniTO has not been perceived as a possible limiting factor to provision of services.

Please make any other general comments that you feel would help the experts concerning the Faculty's finances.

No special comments.

3.3 SUGGESTIONS

If you are not satisfied with the situation, please list any shortcomings, provide suggestions in order of importance, and describe any factors which are limiting the further development of your Faculty.

Before the global economic crisis, the situation of finances at the Faculty was not unsatisfactory. As opposite, sufficient funding was regularly made available to the Dean's Office and the Departments for ordinary expenditure. Resources channelled to Departments were even sufficient to fund local research projects for the benefit of the young staff in particular, and no major concern existed, by the individual staff members, about availability of funds to join a congress or a working seminar abroad. The situation has now changed since at least 2-3 years, and shortage of resources has accelerated the (already running) processes of centralization of resources to the detriment of peripheral autonomy. Now no money is transferred by UniTO for local research. All available resources are used to co-finance projects at the international or national level, and the

number of UniTO funded grants for PhD students have been substantially reduced. As an immediate consequence, a time-consuming “gold” rush has started to find outside resources for research, and data in Annex 3.6 show that fund raising efforts by the Departments were quite successful. It is not the proper context here to discuss if all this is inevitable, “modern” or simply correct from the perspective of resources optimization. What we want to stress here is the underlying risk that a loss of commitment to quality teaching by the staff may occur, should the need to invest much personal time in fund raising for research result in a lower time budget to invest in the less academically recognized teaching. Concern is further justified in the current implementation phase of the “new” curriculum, which will be even more demanding than the “old” one to the teaching staff, due to full adaptation of the Degree course to the pedagogic approaches of the Bologna Process. A relevant suggestion could be, as anticipated in par. 1.3, that the Faculty management i) promotes, to the best of its possibilities, the culture of rewarding teaching commitment and excellence, ii) participates actively in any project run at the local and the national level to define parameters and strategies in this particular area. In the meanwhile, a priority should be the attention, by the Faculty management, to “cultivate” an atmosphere favoring the sense of responsibility and the commitment to qualified teaching by the staff.

Annex 3.1 - EXPENDITURE OF THE DEPARTMENTS AND THE TEACHING AND EXPERIMENTAL FARM (€)

Year	For functioning	For research	For equipment	Other costs	TOTAL
ANIMAL PATHOLOGY					
2005	541,913	663,753	316,374	134,921	1,656,961
2006	471,193	824,331	270,669	108,040	1,674,232
2007	565,908	672,546	120,184	249,153	1,607,791
2008	703,690	937,762	232,086	248,383	2,121,926
2009	851,270	893,158	245,951	371,609	2,361,988
ANIMAL PRODUCTION					
2005	55,208	299,431	18,770	218,750	673,619
2006	77,207	339,672	45,000	207,559	767,543
2007	56,898	349,793	60,634	174,109	677,774
2008	64,076	383,259	22,907	230,769	773,001
2009	55,170	375,398	32,000	154,950	696,265
MORPHOPHYSIOLOGY					
2005	25,200	135,000	112,950	18,894	292,044
2006	36,253	315,870	279,746	1680	633,549
2007	24,679	234,955	120,114	0	379,748
2008	39,247	230,875	199,123	3416	472,661
2009	21,676	260,738	30,216	2200	314,830
TEACHING AND EXPERIMENTAL FARM					
2005	65,555	0	0	84,172	149,727
2006	101,583	0	0	248,393	349,976
2007	141,792	0	0	222,338	364,139
2008	122,228	0	0	216,292	338,520
2009	176,292	0	0	145,046	330,338

Annex 3.2 – INCOME OF THE DEPARTMENTS AND THE TEACHING AND EXPERIMENTAL FARM (€)

Year	From UniTO	From research	From services	Other sources	TOTAL
ANIMAL PATHOLOGY					
2005	645,607	679,437	569,959	137,112	2,032,115
2006	433,200	438,791	626,595	128,064	1,626,650
2007	419,129	743,152	719,966	133,798	2,016,045
2008	468,492	762,361	702,004	90,432	2,023,289
2009	224,260	445,904	794,027	228,200	1,692,391
ANIMAL PRODUCTION					
2005	152,775	343,470	6,040	216,781	719,066
2006	298,909	152,879	24,719	309,968	786,475
2007	261,957	376,880	31,664	109,147	779,648
2008	264,771	220,000	51,457	223,099	759,327
2009	98,824	377,180	17,835	215,152	708,991
MORPHOPHYSIOLOGY					
2005	210,454	112,000	12,000	20,000	354,454
2006	268,219	394,268	50,650	10,000	723,137
2007	213,000	220,000	83,300	10,525	526,825
2008	124,657	356,365	30,260	7,525	518,807
2009	51,199	273,668	8,800	8,719	342,386
TEACHING AND EXPERIMENTAL FARM					
2005	0	0	74,920	119,161	194,081
2006	0	0	95,084	274,805	369,889
2007	0	0	312,934	224,448	537,382
2008	0	0	109,394	309,609	419,003
2009	0	0	134,523	128,229	262,752

Annex 3.3 - EXPENDITURE OF THE DEAN'S OFFICE (€)

Year	For permanent staff *	For hired staff *	For post-graduate education	For functioning	Other costs	TOTAL
2005	5,371,789	19,553	270,782	183,828	114,449	5,960,401
2006	5,553,364	138,339	349,253	144,892	168,499	6,354,347
2007	5,544,183	274,958	264,216	247,411	106,840	6,437,608
2008	5,968,205	285,211	186,284	232,699	138,010	6,810,409
2009	6,451,509	274,583	206,261	209,111	118,440	7,259,904

* only staff involved in veterinary training

Annex 3.4 - INCOME OF THE DEAN'S OFFICE (€)

Year	From the State (through UniTO) for the salaries of:		From UniTO	From post-graduate education	Other sources	TOTAL
	Teaching staff *	Support staff *				
2005	3,942,733	1,429,056	368,889	378,189	0	6,118,867
2006	3,971,876	1,581,488	425,639	262,742	119,240	6,360,985
2007	4,031,724	1,512,459	497,439	231,261	50,000	6,322,883
2008	4,070,275	1,897,930	456,210	232,605	0	6,657,020
2009	4,298,452	2,153,057	580,204	204,897	0	7,236,610

* only staff involved in veterinary training

Annex 3.5 - INCOME FROM UNIVERSITY AND OTHER PUBLIC SOURCES FROM YEAR 2005 TO 2009 (€)

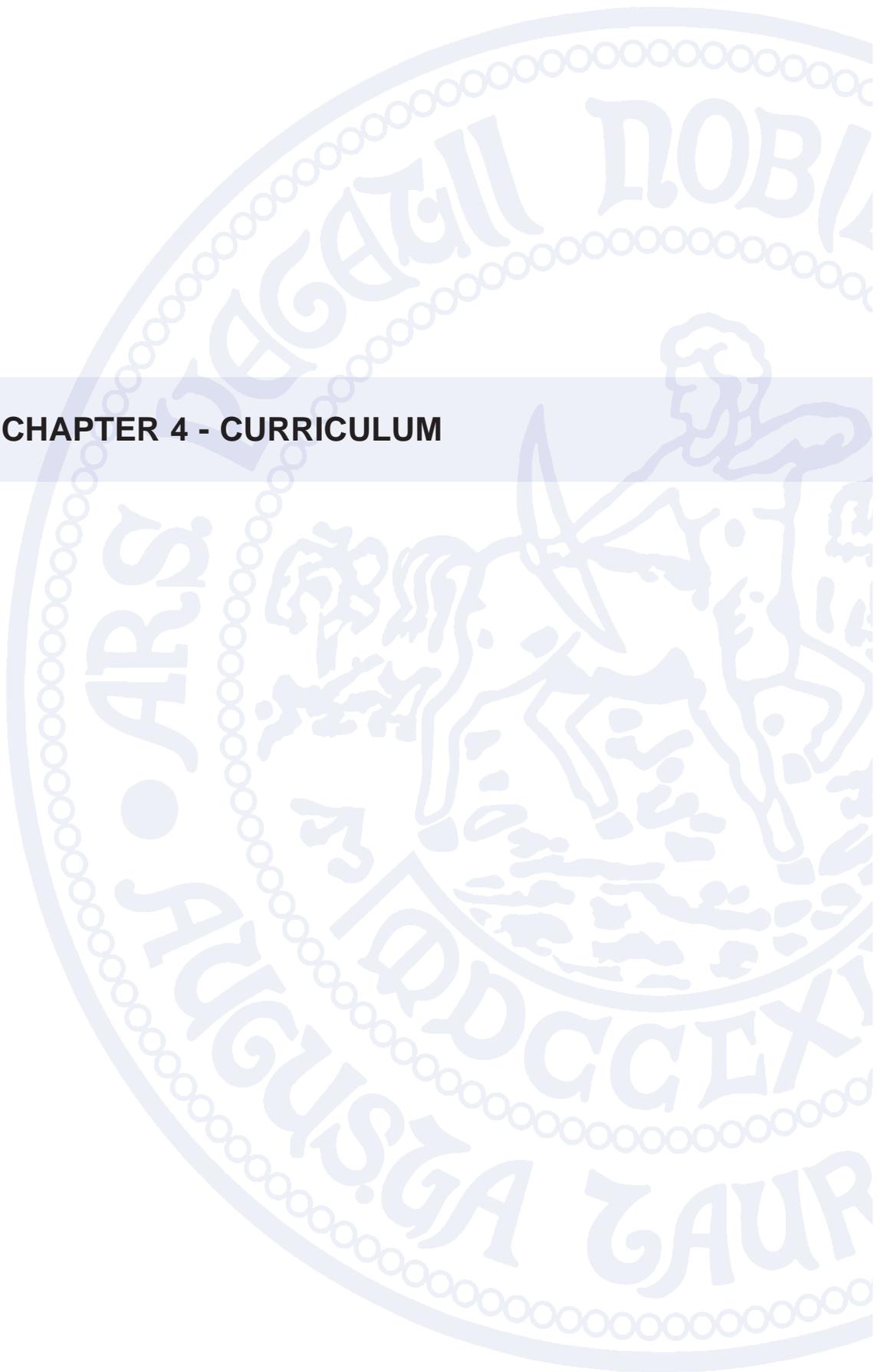
	2005	2006	2007	2008	2009
Dean's office	368,889	425,639	497,439	456,210	580,204*
Departments	1,008,000	1,000,328	894,086	857,920	374,283

* including an extraordinary contribution of € 150,000 for EAEVE visit.

Annex 3.6 - INCOME OF DEPARTMENTS FOR RESEARCH, CLINICAL ACTIVITY AND CONTRACTS FROM YEAR 2005 TO 2009 (€)

	2005	2006	2007	2008	2009
Departments	2.096.799	2.135.934	2.428.412	2.443.503	2.369.485

71 CHAPTER 4 - CURRICULUM





Handling cattle in the Teaching and Experimental Farm



Chapter 4. – CURRICULUM

4.1 FACTUAL INFORMATION

Indicate whether there is a defined national curriculum and (if applicable) how and by what body decisions are taken on this.

The *curriculum* of the Degree Course in Veterinary Medicine has a general framework valid at national level, which was established by the Ministry of Instruction, University and Research and outlined in the Ministerial Decree DM 509/1999. This DM is the body of a vast reform of the Italian university education system in compliance with the “Bologna Declaration”. Amongst other innovations, the DM 509/1999 has introduced the concept of University Learning Credits (ULCs, hereafter “credits”), in a way similar to the European Credit Transfer System (ECTS). The credit represents the unit of measurement of the amount of training and individual work necessary for a student with an adequate basic preparation to achieve the learning objectives established for any university course. Each credit corresponds to 25 hours of learning commitment (lectures plus practicals plus individual work) by the student. Balance between lectures, practicals and individual work may vary depending on the broad area of study, the disciplines and the typology of teaching. According to DM 509/1999, the Degree Course in Veterinary Medicine lasts five years and comprises a total number of 300 credits, 60 per year, 30 per semester.

Even more recently, a new law (DM 270/2004, that reviews DM 509/1999) has introduced further modifications of the general framework of all university courses, including Veterinary Medicine. DM 270/2004 defines the distribution of credits among different disciplines, precisely indicating the minimum and the maximum number of credits to be assigned per group of disciplines. To the aims of the new DM, disciplines have been assembled into 5 main groups:

- a. basic disciplines (“discipline di base”);
- b. characterizing disciplines (“discipline caratterizzanti”);
- c. similar and integrative disciplines (“discipline affini e integrative”);
- d. elective disciplines (“discipline a scelta”);
- e. other activities (e.g., Foreign language, Informatics, Obligatory extramural fieldwork, etc.);

A last category is mentioned by DM 270/2004, namely the obligatory Dissertation work.

“Similar and integrative disciplines” should mirror the vocation of the geographical area and/or the expertise of the available teachers.

At the Faculty, approval of the "new curriculum" has been achieved in April 2009, and the "new" first year has finally started in September 2009. The "new curriculum" will be introduced gradually, so as to completely replace the "old" one in 2013. In fact, the Degree Course in Veterinary Medicine at the Faculty is currently in a transition phase. At the moment of the EAEVE team visit, the 1st and the (just started) 2nd year of the curriculum will be consistent with DM 270/2004, while the 3rd, 4th and 5th year will still follow DM 509/1999.

Describe the degree of freedom that the Faculty has to change the curriculum.

Within the new framework (DM 270/9004), the Faculty has enjoyed a relative freedom to establish its own curriculum, provided that four main rules were respected, namely:

- the number of credits allocated to the five groups of disciplines and the “other activities”, to be equal to or higher than the minimum established at the national level;
- the total number of credits, to be 300;
- the duration of the whole Degree course, to be 5 years;
- the maximum number of exams, to be 30.

More rules were dictated by UniTO, relative to minimum number of credits to be allocated to each integrated course (from 4 to 12), the maximum number of modules of each integrated course (3) and the minimum number of credits per module in each integrated course (3).

Notwithstanding, the Faculty had a say and finally could deliberate, as per own proposal, on some structural points of the curriculum, namely:

- the number of credits allocated to disciplines;
- the number of credits allocated to the “other activities” and the Dissertation work;
- the denomination and structure of the courses (e.g., whether comprising or not modules provided by teachers of different disciplines);
- the allocation of the subjects to the different semesters;
- the typology and organization of the “other activities”.

In Table 4.a, deviations from the minima dictated by DM 270/2004 are briefly summarized.

Table 4.a – New curriculum in Veterinary medicine (DM 270/2004). Actual distribution of credits deliberated by the Faculty, in comparison with the minimum number of credits per category established at the national level.

Disciplines/activities	Number of credits	
	<i>Minimum number according to DM 270/2004</i>	<i>Number deliberated by the Faculty</i>
Basic disciplines	58	67
Characterizing disciplines	130	168
Similar and integrative disciplines	12	12
Elective disciplines	*	8
Other activities**	30	35
Dissertation work	*	10
Total	230	300

* no indication by law. Dissertation work mandatory.

** Here synonym of Obligatory Extramural Work.

The modifications introduced in the “new curriculum”, though not a twisting of previous organization, deal with important aspects of the teaching provided, namely a further increase of practical training (including largely expanded Obligatory Extramural Work) to the detriment of electives, of the Dissertation work and – to some extent – of “core” lectures, which will diminish in hours from 2324 to 2192 (-5.7%). The Faculty was also free to deliberate on the creation of a lecture-free semester (the 10th semester), never planned before in the Country, to avoid competition between practical and theoretical training and be able to provide to late students a sort of timely full immersion in profession-oriented practical activities.

Previously, the Faculty has been free to modify the organization and structure of a significant proportion of the time devoted to clinical training on large animals (see also par. 4.1.3 and 7.1.8) .

The process which led to implementation of the “new curriculum” in 2009 is a good example of how decisions are taken, at the Faculty, on curriculum matters and course content. In fact, two processes were (and had to be) run almost in parallel. The whole issue was initially (February 2007) examined by the Teaching Affairs Committee (of which the President of the Degree Course is member), taking into the due account the relevant EU legislation and the broad inputs by representatives of the veterinary profession (see also par. 2.1). It is worth stressing that the involvement of a range of outside colleagues and institutions was, at one and the same time, a policy of the Faculty and a step indicated by the new legislation. Furthermore, in order to collect “in house” all the necessary inputs, the Committee worked in strict collaboration with motivated members of the permanent teaching staff (N=16), each representing a basic or characterizing discipline. A first output by the Teaching Affairs Committee was a draft document for final approval by the Ministry, composed of the following sections:

- general information and data;
- criteria followed in the course transformation from according to DM 509/1999 to DM 270/2004;
- general teaching objectives;
- specific teaching objectives and description of the formation project;
- expected learning results, expressed in terms of the European descriptors of the study titles (viz. knowledge and understanding, applying knowledge and understanding, making judgements, communication skills, learning skills);
- necessary knowledge on admission;
- characteristics of the Dissertation work;
- range of working perspectives;
- range of credits allocated to the different groups of disciplines.

The document, named RAD, was debated and approved by the Council of the Degree Course and submitted for review to the Self-Evaluation Committee of UniTO. Following a minor revision, the positive advise of the Committee was included in the final draft as well as the broad opinion of stakeholders summoned in a dedicated public meeting at the Faculty.

The draft was again (this time only formally) debated and approved, in succession, by the Council of the Degree Course, the Faculty Board and the University Senate. A final approval was obtained by the Ministry, following minor revisions suggested by the relevant consulting body (named CUN).

The second process run aimed at the identification and denomination of all courses of the “new curriculum” and the allocation of the corresponding credits. Taking into account that the number of credits taught in core courses is still the main parameter that all Faculties across the Country consider for creation of new permanent teaching positions (see also par. 10.1), this was clearly a very delicate process. Again, a first draft (consistent with RAD content) was prepared by the Teaching Affairs Committee and submitted for debate to the Council of the Degree Course. A (relatively long) dialectic phase between the Council and the Committee followed, during which the draft was progressively revised and integrated. Finally, it was approved by the Council and ratified, in succession, by the Faculty Board and the University Senate. In this case, no advise by the Self-Evaluation Committee had to be requested nor the Ministry had to be involved .

In future, should any major revisions of the curriculum be necessary (e.g., allocating credits beyond the ranges indicated in the RAD for the different groups of disciplines), all the fore-mentioned time-demanding and stressing processes should be resumed since the beginning, and this would be a very bad perspective.

On the other hand, should any minor revision of the curriculum be necessary (all revisions which do not imply allocation of credits beyond the ranges indicated in the RAD for the different groups of disciplines fall functionally into this denomination), only the second process should be resumed. It seems reasonable to assume that modification of a core or an elective course structure (e.g., a shift in the number of modules), or the “reinforcement” of a discipline (viz. more credits allocated to the detriment of another one), or a change in the ratio of the hours attributed to “University” rather than “Home” work in the credits allocated to selected disciplines, will have to all effects to be treated as minor revisions.

Finally, provided that they do not modify the theoretical and practical hours allocated to a subject, changes to the form of exam, or the content of scheduled lectures and practicals, etc., need only to be communicated by the responsible teacher to the Teaching Affairs Committee for debate or straight presentation to the attention of the Faculty deliberating bodies (in temporal order, the Council of Degree Course and the Faculty Board).

Outline how decisions are taken on the allocation of hours between the various subjects and on the balance between theoretical and practical teaching (Tables 4.1, 4.2 and 4.3).

As reported earlier in this Chapter, all decisions on the allocation of hours between subjects and the balance between theoretical and practical teaching are taken by the Council of Degree Course, then ratified by the Faculty Board and the University Senate, with due respect for the rules dictated by the national legislation and UniTO itself. Matters are previously examined by the Teaching Affairs Committee, which is also in charge of proposing solutions and procedures for debate and approval by the Faculty deliberating bodies.

The allocation of hours between the various subjects derives from the number of credits allotted to the subject and the nature itself (theoretical or practical) of the subject, since more hours per credit are given to subjects with a higher practical content. As a general rule of the Faculty, “basic” disciplines, which are allocated in the first two years of the Veterinary Medicine course, have a higher number of hours allotted to theoretical lectures, while in “characterizing” and “similar and integrative” disciplines (provided in the 3rd, 4th and 5th year) the relative number of supervised practical training hours increases, as shown in Table 4.1; a remarkable exception is in the first year of the “new” curriculum (Table 4.1bis), namely the subject “Animal Husbandry and Management”, in which several hours of practical training in small groups are scheduled in order to provide early exposure of students (mostly from urban areas) to contact with a range of domestic animals.

Indicate the presence and disposition of an integrated curriculum. Describe the degree of integration present and amount of time devoted for EU- and non-EU-listed subjects (Table 4.4).

Both the “old” and “new” curriculum are integrated ones. Besides EU-listed subjects, a Dissertation work is comprised as well as hours dedicated to improve proficiency in standard and technical English and in Informatics. The amount of time devoted for non-EU listed subjects is 18 credits (15 for the Dissertation work and 3 for the English, ALTE B1 Level) in the “old” curriculum and 10 credits (8 for the Dissertation work and 2 for the remaining subjects) in the “new” one.

4.1.1. POWER OF SUBJECT AND TYPES OF TRAINING

4.1.1.1 POWER OF SUBJECT

The terminology reported in the EAEVE SOPs has been carefully considered when drafting the text and tables of this Chapter.

THE “OLD” CURRICULUM

It comprises a total of 300 credits. Core subjects account for the 86.0%, electives for 6.3%, the obligatory extramural work for 2.7% and the Dissertation work for 5%.

THE “NEW” CURRICULUM

It comprises a total of 300 credits. As shown in Table 4.a, Core subjects account for the 82.3%, the Obligatory Extramural Work for 11.7%, Electives for 2.7% and the Dissertation work for 3.3%.

4.1.1. UNDERGRADUATE CURRICULUM FOLLOWED BY ALL STUDENTS

4.1.2.1 CURRICULUM HOURS

CORE ACTIVITIES

Table 4.1: **General table of hours taken by all students (old curriculum)**

Year	Hours of training							Total	Home study
	Theoretical training		Self-directed learning (C)	Supervised practical training			Other (G)		
	Lectures (A)	Seminars (B)		Laboratory and desk based work (D)	Non-clinical animal work (E)	Clinical work (F)			
First	492	8	40	117	26	0	0	683	888
Second	576	4	0	106	102	0	0	788	608
Third	487	6	0	141	22	92	0	748	473
Fourth	477	10	0	79	229	290	0	1085	554
Fifth	242	22	0	0	0	293	0	557	266
Total	2274	50	40	443	379	675	0	3861	2789

Table 4.1bis: **General table of hours taken by all students (new curriculum)**

Year	Hours of training								
	Theoretical training		Self-directed learning (C)	Supervised practical training			Other (G)	Total	Home study
	Lectures (A)	Seminars (B)		Laboratory and desk based work (D)	Non-clinical animal work (E)	Clinical work (F)			
First	454	8	25	70	72	0	0	629	746
Second	546	2	0	202	11	0	0	761	614

Table 4.2: **Curriculum hours in EU-listed subjects taken by each student (old curriculum)**

Subject	Theoretical training			Supervised practical training			Other	Total	Home study
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical training			
	A	B	C	D	E	F	G		
1. Basic Subjects									
a) Physics	15	0	0	3	0	0		18	32
b) Chemistry	70	0	0	10	0	0		80	120
c) Animal biology	79	0	0	11	0	0		90	160
d) Plant biology	19	4	0	4	0	0		27	48
e) Biomathematics (biostatistic)	13	0	0	14	0	0		27	48
1- Total number of hours	196	4	0	42	0	0		242	408
2. Basic Sciences									
a) Anatomy (incl. histology and embryology)	221	0	0	14	51	0		286	264
b) Physiology	159	0	0	26	10	0		195	176
c) Biochemistry, cellular and molecular biology	72	4	0	14	0	0		90	156
d) Genetics (including molecular genetics)	67	0	0	9	17	0		93	82
e) Pharmacology and pharmacy	66	0	0	30	0	0		96	50
f) Toxicology (including environmental pollution)	30	4	0	14	0	0		48	27
g) Microbiology (including virology, bacteriology and mycology)	24	0	0	10	4	0		38	20
h) Immunology	30	0	0	15	0	0		45	30
i) Epidemiology (including scientific and technical information and documentation methods)	30	0	0	15	0	0		45	30
j) Professional ethics	6	0	0	0	0	2		8	12
2- Total number of hours	705	8	0	147	82	2		944	847
3. Clinical Sciences									
a) obstetrics	64	0	0	0	0	28		92	72
b) pathology (including pathological anatomy)	207	2	0	27	0	64		300	200
c) Parasitology	86	4	0	19	0	18		127	90

d) clinical medicine and surgery (including anaesthetics)	242	22	0	30	0	412		706	251
e) clinical lectures on various domestic animal, poultry and other animal species including	18	2	0	0	0	10		30	20
f) Field veterinary medicine (ambulatory clinics)	0	0	0	0	0	50		50	0
g) preventive Medicine	10	0	0	5	0	0		15	10
h) Diagnostic imaging (including radiology)	24	0	0	0	0	12		36	27
i) Reproduction and reproductive disorders	44	4	0	16	0	12		76	50
j) Veterinary state medicine and public health	10	0	0	5	0	0		15	10
k) Veterinary legislation and forensic medicine	28	0	0	0	0	6		34	27
l) Therapeutics	30	0	0	0	0	8		38	27
m) Propaedeutics (including laboratory diagnostic methods)	116	0	0	34	0	53		203	128
3- Total number of hours	879	34	0	136	0	673		1722	912
4. Animal Production									
a) Animal production	49	4	0	0	122	0		175	50
b) Animal nutrition	102	0	0	11	31	0		144	106
c) Agronomy	23	0	0	4	0	0		27	48
d) Rural economics	94	0	0	14	0	0		108	192
e) Animal husbandry	10	0	0	0	5	0		15	10
f) Veterinary hygiene	10	0	0	0	5	0		15	10
g) Animal ethology and protection	27	0	0	12	0	0		39	36
4- Total number of hours	315	4	0	41	163	0		523	452
5. Food Hygiene/ Public Health									
a) Inspection and control of animal foodstuffs or foodstuffs of animal origin and the respective feedstuff production unit	73	0	0	16	16	0		105	70
b) Food hygiene and technology	84	0	0	18	18	0		120	80
c) Food science including legislation	22	0	0	8	0	0		30	20
d) Practical work (including practical work in places where slaughtering and processing of foodstuffs takes place)	0	0	0	0	100	0		100	0
5- Total number of hours	179	0	0	42	134	0		355	170
6. Professional Knowledge									
a) Practice management *	0	(8)		0	0			(8)	0
b) Veterinary certification and report writing**	(4)				(4)				
c) Career planning and opportunities***									
6- Total number of hours									

* 6a contents dealing with Practice management are provided during rotations at the VTH

** 6b Veterinary certification and report writing are provided under 3K (Veterinary legislation and forensic medicine), 3L (Therapeutics), 3J (Veterinary state medicine and public health), 5D (Food Hygiene/ Public Health / Practical work) and during rotations at the VTH

*** 6c contents dealing with Career planning and opportunities are provided by the job placement service. Accordingly, these hours (8 in total) are not accounted in the table.

Table 4.2bis: **Core courses taught during each curricular year of the old and new curriculum.**

A) Old curriculum

1st year

Subject	Theoretical training			Supervised practical training			Other	Total	Home study
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical training			
	A	B	C	D	E	F	G		
Animal biology	93	0	0	15	0	0		108	192
Histology, embryology and microscopic anatomy	77	0	0	14	0	0		91	84
Biochemical propaedeutics I	35	0	0	5	0	0		40	60
Biochemical propaedeutics II	35	0	0	5	0	0		40	60
Physics and medical statistics	28	0	0	17	0	0		45	80
Applied botanics	42	4	0	8	0	0		54	96
Applied biochemistry	72	4	0	14	0	0		90	156
Veterinary anatomy	78	0	0	0	26	0		104	96
Rural constructions and agro-forestal territory	32	0	0	4	0	0		36	64
Foreign language	0	0	40	35	0	0		75	
Total number of hours	492	8	40	117	26	0		683	888

2nd year

Subject	Theoretical training			Supervised practical training			Other	Total	Home study
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical training			
	A	B	C	D	E	F	G		
Veterinary Physiology and Ethology	93	0	0	24	0	0		117	106
Veterinary Physiology and Endocrinology	93	0	0	14	10	0		117	106
Microbiology and veterinary Immunology	50	0	0	25	0	0		75	50
Zootecnic Sciences I	59	4	0	5	22	0		90	60
Animal nutrition and feedstuffs	102	0	0	11	31	0		144	106
Veterinary general pathology and pathophysiology	63	0	0	27	0	0		90	60
Zootecnic Sciences II and Zoocultures	63	0	0	0	27	0		90	60
Locomotor apparatus and Topographic anatomy	53	0	0	0	12	0		65	60
Total number of hours	576	4	0	106	102	0		788	608

3rd year

Subject	Theoretical training			Supervised practical training			Other	Total	Home study
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical training			
	A	B	C	D	E	F			
Veterinary Parasitology and Parasitic Diseases	90	4	0	19	4	18		135	90
Veterinary Medical Propaedeutics and Diagnostics	56	0	0	24	0	32		112	63
Veterinary Pathological Anatomy I	73	0	0	0	0	32		105	70
Veterinary Pharmacology	66	0	0	30	0	0		96	50
Infectious Diseases I and Avian Pathology	58	2	0	20	0	10		90	60
Infectious Diseases II	60	0	0	30	0	0		90	60
Food Hygiene and Technology	84	0	0	18	18	0		120	80
Total number of hours	487	6	0	141	22	92		748	473

4th year

Subject	Theoretical training			Supervised practical training			Other	Total	Home study
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical training			
	A	B	C	D	E	F			
Veterinary Toxicology	30	4	0	14	0	0		48	27
Veterinary Pathological Anatomy II	71	2	0	0	0	32		105	70
Inspection, control and certification of food products	95	0	0	24	16	0		135	90
Medical Pathology of domestic animals	44	0	0	0	0	6		50	36
Veterinary Epidemiology	30	0	0	15	0	0		45	30
Animal reproduction Pathology	44	4	0	16	0	12		76	50
Rural economics and farm organisation	62	0	0	10	0	0		72	128
Veterinary surgical pathology, semiotics and radiology	101	0	0	0	13	45		159	123
Food hygiene practical training	0	0	0	0	100	0		100	0
Zootechnic practical training	0	0	0	0	100	0		100	0
Practice management	0	(8)	0	0	0	0	0	(8)	0
Clinical practical training						195		195	0
Total number of hours	477	10	0	79	229	290	0	1085	554

5th year

Subject	Theoretical training			Supervised practical training			Other	Total	Home study
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical training			
	A	B	C	D	E	F			
Veterinary clinical sciences and legal medicine	92	20		0	0	18		130	97
Veterinary Anaesthesiology and Veterinary surgical clinics	86	2		0	0	47	0	135	97
Veterinary Theriogenology	64	0		0	0	28	0	92	72
Clinical practical training	0	0		0	0	200	0	200	0
Total number of hours	242	22		0	0	293	0	557	266

B) New curriculum

1st year

Subject	Theoretical training			Supervised practical training			Other	Total	Home study
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical training			
	A	B	C	D	E	F			
Biochemical propaedeutics and physics	78	0	0	10	0	0		88	162
Animal Husbandry and management	79	4	0	7	72	0		162	138
Histology, embryology and microscopic anatomy	84	0	0	20	0	0		104	96
Biochemistry	63	4	0	13	0	0		80	120
Veterinary Anatomy I	50	0	0	15	0	0		65	60
Veterinary Physiology and endocrinology	100	0	0	30	0	0		130	120
Foreign language	0	0	25	25	0	0		50	
Total number of hours	454	8	25	120	72	0		679	746

2nd year

Subject	Theoretical training			Supervised practical training			Other	Total	Home study
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical training			
	A	B	C	D	E	F			
Veterinary Anatomy II	60	0	0	18	0	0		78	72
Veterinary Physiology and Ethology	83	0	0	21	0	0		104	96
Applied Animal Genetics	83	0	0	34	0	0		117	108

Veterinary Parasitology and Zoology	72	2	0	11	11	0		96	79
Animal Nutrition and Feedstuff	124	0	0	47	0	0		171	129
Veterinary General Pathology and Pathophysiology	67	0	0	38	0	0		105	70
Microbiology and Veterinary Immunology	57	0	0	33	0	0		90	60
Total number of hours	546	2	0	202	11	0		761	746

ELECTIVE ACTIVITIES

Table 4.3: Curriculum hours in EU-listed subjects offered and to be taken as electives

Subject	Theoretical training			Supervised practical training			Other	Total Hours per subject (n° of courses in which they are provided)
	Lectures	Seminars	Home study	Laboratory and desk based work	Non-clinical animal work	Clinical work		
	A	B	C	D	E	F	G	
Basic sciences								
Anatomy (including histology and embryology)	62		79	47	12			125 (3)
Physiology	46		36	43				125 (3)
Genetics (including molecular genetics)	24		27	24				75 (2)
Pharmacology and pharmacy	74		75	71				220 (8)
Toxicology (including environmental pollution)	28		31	28				87 (3)
Professional ethics	36		64					100 (1)
Clinical sciences								
Obstetrics	16		18			16		50 (1)
Pathology (including pathological anatomy)	40		45			40		125 (8)
Parasitology	40		45	16		24		125 (3)
Clinical medicine and a surgery (including anaesthetics)	176		230			206		612 (6)

Clinical lectures on various domestic animal, poultry and other animal species including	96		99			104		299 (2)
Preventive Medicine	32		36		32			100 (1)
Diagnostic imaging (including radiology)	8		9			8		25 (1)
Reproduction and reproductive disorders	64		72			64		200 (4)
Propaedeutics (including laboratory diagnostic methods)	104		117	88		16		325 (3)
Animal production								
Animal production	91		128	32	28			279 (4)
Animal nutrition	40		49	4	16	24		133 (5)
Food hygiene/ Public health								
Inspection and control of animal foodstuffs or foodstuffs of animal origin and the respective feedstuff production unit	24		27	24				75 (1)
Food hygiene and technology	16		18	16				50 (1)
Food science including legislation	8		9	8				25 (1)
Professional knowledge								
	36		64					100 (1)

To complete their curriculum, students are requested to select electives for a minimum amount of 19 credits. The aim of electives is essentially to improve the students' theoretical knowledge and/or skills in some areas of their specific interest.

There are three types of electives available for the students (numbers in Table 4.3 refer to typologies 1 and 2):

- 1) Type 1 electives are courses with a “traditional” organization (Table 4.3bis). Of the five offered at the Faculty, three may be elicited since the 2nd year and two (requiring specific background knowledge) since the 4th. A final exam is expected;
- 2) Type 2 electives are, *de facto*, “orientation packages” of 15 credits each (Table 4.3ter), known with the acronym CIP (“Integrated Profession-oriented Course”). They are explicitly profession-oriented in their content, therefore reserved to 5th year students with sufficient background (based on exams taken and/or verified attendance to selected courses). CIPs are taught by several teachers, some of them hired ones, in the largest possible integrated way (e.g., with use of seminars open to outside practitioners; with discussion of cases carried out in conjunction by more teachers, etc.). The theoretical part is provided at the Faculty whereas the practical activities are carried out in house (VTH, Teaching and Experimental Farm, etc.) and/or in outside premises under the guidance of the teachers. A single final exam is expected, in front of all teachers (at least the permanent staff). In fact, deviations of teachers from this official indication are frequent. CIPs are offered every year, but they are activated if elicited by a minimum number of 5 students. A maximum number is also fixed (n=20) to permit the organization of practicals in small groups;
- 3) Type 3 electives are “packages of practical activity only” of 4 credits each (corresponding to 100 hours split over a minimum of 14 days), known with the acronym APS (“Elective Practical Training”). They are obviously profession-oriented, therefore reserved to 5th year student with sufficient background (based on exams taken and/or verified attendance to selected courses). A list of locations (clinics, farms, plants, institutions, some services at the Faculty) where students can elicit to carry out one or more APS is made available to students (see par. 5.1.1). Individual agreements have been signed with all outside locations, in which an external tutor is identified. Once obtained her/his ok, the student is committed to communicate the date in which the APS will begin to the Teaching Affairs Secretary Office. Tutors are expected to organize and supervise the activity, verify attendance by the student and sign the student’s logbook. A true mark is not assigned to APSs. On request of the students, contacts may also be taken with outside Faculties provided they are EAEVE approved or Erasmus partners with the Faculty. A similar procedure is followed and, following acceptance by the host Faculty, a local responsible tutor is identified.

Tab. 4.3bis **Elective “traditional” courses offered by the Faculty**

Courses	Elicited from.... year	Credits
Biomedical English	2 nd	4
Fundamentals of Communication Science	2 nd	4
European Computer Driving Licence (ECDL)	2 nd	4
Behavioural Veterinary Medicine and Zoo-anthropology	4 th	4
Sanitary legislation and Bioethics	4 th	4

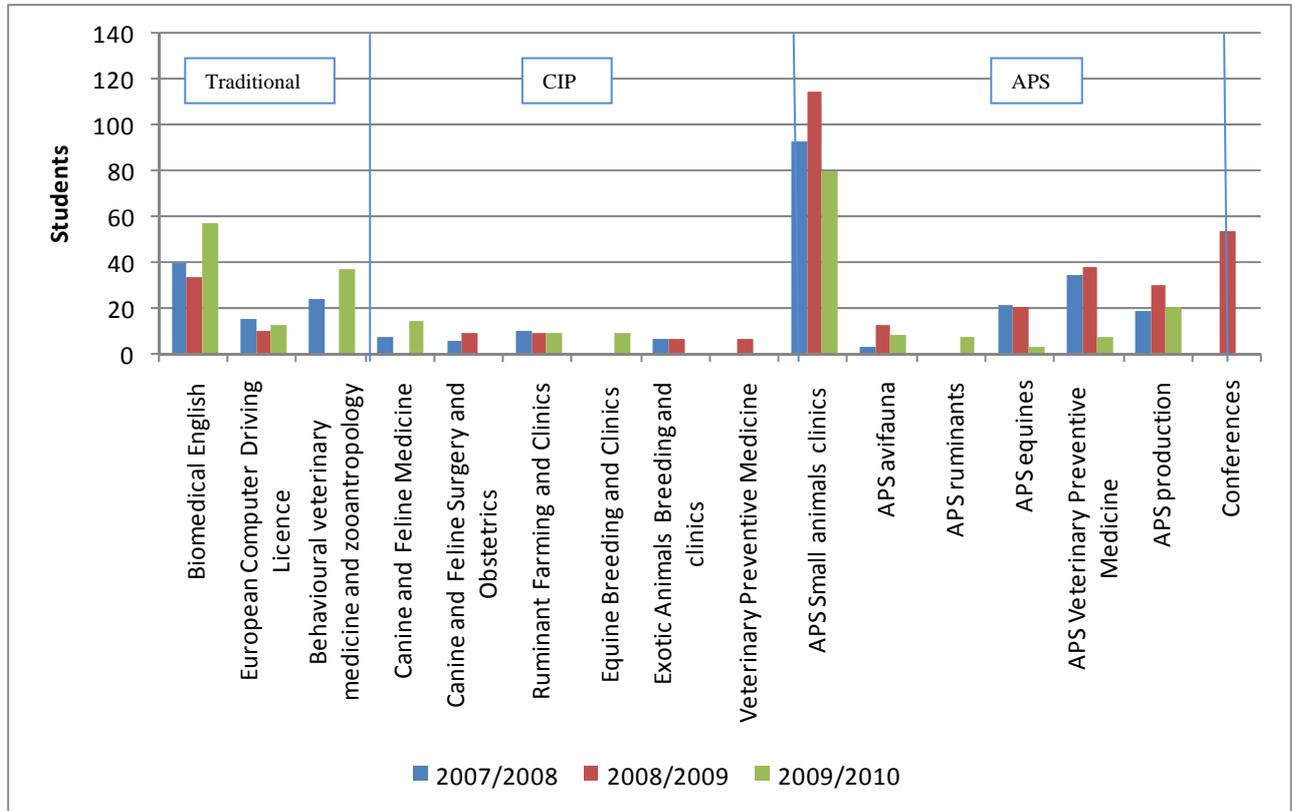
Tab. 4.3ter **Elective CIPs (“Integrated Profession-oriented Courses”) offered by the Faculty**

Courses	Elicited from.... year	Credits
Canine and Feline Medicine	5 th	15
Canine and Feline Surgery and Obstetrics	5 th	15
Ruminant Farming and Clinics	5 th	15
Equine Breeding and Clinics	5 th	15
Preventive Veterinary Medicine	5 th	15
Experimental Veterinary Medicine	5 th	15
Swine and “minor species” Breeding and Clinics	5 th	15
Exotic Animals Breeding and Clinics	5 th	15

On paper, students may also elicit any other subject offered by UniTO and other national or foreign Universities, and could even obtain credits for participation in a variety of different activities such as seminars, conferences, civil service and international research projects (“others” in figure 4.1). However, this is rarely done since students have to motivate the consistency of these activities with the veterinary curriculum and wait for a previous decision by the Council of Degree Course, based on the proposal of the Teaching Affairs Committee.

As shown in Figure 4.1, in the last three years APSs have become increasingly popular amongst students, mainly to the detriment of CIPs.

Figure 4.1 Electives elicited by students in the last 3 academic years (*)



* two “traditional” courses and three “orientation packages” (CIPs) have never been activated due to insufficient requests. APS corresponds to “elective practical activities”

The following two tables complete the factual information to be provided in this paragraph (SOPs, Annex III).

Table 4.4: Curriculum hours in subjects not listed in Table 4.2 to be taken by each student, including Diploma work (final graduation thesis, or final graduation work).

Subject	Theoretical training			Supervised practical training			Other	Total
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical work		
	A	B	C	D	E	F	G	
English (ALTE B1 level)	0	0	40	35	0	0	0	75
Final graduation thesis	0	*	*	*	*	*	*	375

(*) all categories may be valid (or not) and differently represented according to the elicited Diploma work. topic.

Table 4.4bis: Curriculum hours in subjects not listed in Table 4.3 to be taken as electives).

Subject	Theoretical training			Supervised practical training			Other	Total
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical work		
	A	B	C	D	E	F		
Biomedical English	16	20	64	0	0	0	0	100
European Computer Driving Licence (ECDL)	0	0	100	0	0	0	0	100

4.1.3 FURTHER INFORMATION ON THE CURRICULUM

Provide the visiting team with highlights on any unusual or innovative aspects of the teaching programme, e.g. tracking and orientation programmes.

Compared with the situation in 2002, when the Faculty was approved by EAEVE, there is no doubt that the most innovative aspects of the teaching programme deal with the amount, variety and organization of supervised practical training activities. In other parts of this chapter, it is stressed that:

- all students are involved in a range of practical activities independently of their vocation;
- a considerable part of these activities (and basically all the clinical ones) are organized in small groups;
- rotations of the small groups, and of the larger ones when applicable, are all scheduled (therefore traceable);
- a Mobile Clinic has been run, permitting a significant increase of farm animal (and equine) caseload and, in parallel, reinforcement of contacts with skilled practitioners (see also par. 7.1.8);
- the Faculty slaughterhouse is operative, and now of remarkable teaching value;
- students have now the possibility to elicit in a wider range of electives, including the “packages of practical activity only” (APSs);
- though only very recently, Emergency services have been activated, permitting exposure of rotating groups of student to acute (often problematic) cases.

As regards the “new” curriculum, whose implementation is currently in progress, another innovative aspect of the teaching program is the activity in small groups that students in their first semester carry out at the Teaching and Experimental Farm, the Faculty Kennel

and the International Horse Centre (see par. 5. 1.1). This practical stage permits early exposure of students (most ones of city origin) to handling and to the fundamentals of management of a range of domestic animals.

State the parts of the programme that must be attended as obligatory by the students and how the attendance is verified.

All activities which are included in Tables 4.2 and 4.3 must be attended by the students to a rate equal or superior to 50% in the case of theoretical parts, and 80% in the case of practical parts. As the only remarkable exception, attendance to clinical rounds is compulsory at the 100% rate. All scheduled hours must be fulfilled in the case of the obligatory extramural work and the APSs (if elicited). Attendance to the fore mentioned activities is verified by the teachers or tutors in different ways. In fact, while substantial freedom is left to teachers for verification of attendance to lectures, controls are strict in the case of practical activities in the laboratories, the Teaching and Experimental Farm, the Faculty Kennel, the VTH, the Mobile Clinic, the Faculty Slaughterhouse and any other involved farm, plant or institution. Checks of attendance are usually in the form of signature of the teachers/tutors on the student's logbook or signature of the student on an activity register.

Please provide specific information **on the practical clinical training**;

If clinical training is provided through obligatory clinical rotations in different areas, please give an outline description of how this is structured, in terms of:

- are such rotations a structured part of the training given to all undergraduate students?
- the total number of days or weeks of such rotations;
- the year(s) in which they occur;
- the different areas covered and the time spent in each area;
- whether attendance is full-time, for part of the day, and/or other (e.g. based on case needs);
- the activities and case responsibilities that students are expected to undertake.
- the group sizes in the clinical rotations

At the Faculty, the following four main types of practical clinical training are provided for all students:

1. *practicals directly connected to individual courses*: these hours (224 in total), scheduled in the official timetable of each academic year

(http://veterinaria.campusnet.unito.it/cgi-bin/home.pl/View?doc=orari_lezioni/index.html), are provided under close guidance of the teacher. Depending on the course, students are divided in groups that may vary from 5 to 20 components. They are usually run at the Faculty premises but they may be also run in outside locations (e.g., farms);

2. *in house rotations at the VTH*: these hours (56 in total) are not directly connected to any individual course; notwithstanding, they are always supervised by a teacher, which also has the responsibility to validate commitment and performance. Rotations are carried out, in groups of 4-6 students each, at the following 8 points of the VTH:

- consulting rooms for medical cases (companion animals);
- consulting rooms for surgical and obstetric cases (companion animals);
- surgical rooms (companion animals);
- diagnostic imaging rooms;
- clinical diagnostic laboratory;
- consulting room for equines (and the stable plus contiguous exercise area at the Teaching and Experimental Farm);
- surgical rooms (large animals);
- necropsy room.

Each student spends:

- in her/his 4th year, 15 hours in the consulting room for equines, during 3 consecutive or non consecutive mornings (e.g., in case of seasonal procedures related to reproduction);
 - in her/his 4th year, 6 hours in the Necropsy room, during 3 non consecutive 2-hour sessions, one of them dedicated to avian pathology);
 - in her/his 5th year, 5 hours in each of first five listed points, during 5 consecutive mornings (in total, 25 hours);
 - in her/his 5th year, 10 hours in the surgical room for large animals (sometimes in substitutive outside locations, see also par. 7.1.8), during 2 consecutive mornings, one of them dedicated to equines and the second to bovines;
3. *the Mobile Clinic work*: similarly as Type 2 practicals, these hours (50 in total) are not directly connected to any individual course. Each student is involved in two rotations, the first during her/his 4th year and the second during the 5th year. Each

rotation include five consecutive mornings (of 5 hours each). Rotations are carried out in groups of 4-6 students. For details on the Mobile Clinic work, please see par. 7.1.8;

4. *in house rotations at the Emergency, Intensive Care and Hospitalization unit of the VTH*: once again, these hours (345 in total) are not directly connected with any individual course. Type 4 activities involve groups of 4 students. Each student is scheduled for:

- 15 holiday and night duties of 11-12 hours each (in total, 170 hours);
- 10 daily duties of 12 hours each (in total, 120 hours);
- 10 daily duties of 5-6 hours each (in total 55 hours), during which they also attend other services at the VTH, according to needs and (when possible) to their preferences.

The first series of duties is reserved to 4th year students, whereas the second and third are reserved to students in their 5th year.

Since the majority of animals visited and hospitalized at the VTH are companion animals, all Type 4 rotations have so far implied, almost exclusively, work on these patients. However, since May 2010, students have been offered the option to attend the Emergency service for equines or farm animals instead of the fore mentioned 20 daily duties. In the last case, students are scheduled for 25 duties of 7 hours each (legally, 175 hours). Groups are of 1-3 students.

An amount of hours corresponding to 20 daily duties can also be spent, on request by the student, in other Veterinary Teaching Hospitals in Europe, provided that the host Faculty is EAEVE approved or Erasmus partner with the Faculty. In this case, a local responsible tutor is identified.

The main procedures that student are expected to be exposed to, therefore be able to perform following these training periods, are listed in the Student Guide (http://veterinaria.campusnet.unito.it/cgi-bin/home.pl/View?doc=guida_studente/guidastudente0708.html). The list of these “Minimum Practical Competences”, to be provided during the clinical practical training at the Faculty, has been defined by the Practical Training Committee (see also par. 5.1) and officially approved by the Council of Degree Course and the Faculty Board in 2007. The procedures have been assembled as follows:

a) *procedures dealing with activity in the consulting rooms*

- *Intravenous sampling*
- *Treatment of haematic samples*
- *Execution of at least one basic clinical examination (under supervision)*
- *Execution of at least one examination for consultancy, i.e. orthopaedic, oncological, neurological, gynaecological, etc. (under supervision)*
- *Execution of at least one Fine Needle Aspiration*
- *Execution of at least one centesis /catheterization*
- *Trans-rectal examination of male and female reproductive systems, vaginal smears, seminal fluid examination, vaginal and uterine swabs.*

b) *procedures dealing with auxiliary diagnostic activity*

- *Positioning the patient for X-ray examination*
- *Assistance during X-ray examination and interpretation (under supervision)*
- *Assistance during ultrasound examination*
- *Performing an ECG*
- *Assistance during endoscopy*
- *Assistance during haemato-chemical profile execution in laboratory.*

c) *procedures dealing with hospitalization*

- *Patient approach and restraint*
- *Monitoring of TPR (temperature, pulse, breath)*
- *Survey of arterial pressure*
- *Intravenous sampling.*
- *Intravenous catheter insertion*
- *Preparation of an intravenous administration fluid line*
- *Calculation of fluid therapy volume, evaluation of hydration status*
- *Drug administration (OS, SC, IM, EV)*
- *Sampling for blood gases analysis*
- *Wound treatment*
- *Execution and maintenance of simple and rigid bandages.*

d) *procedures dealing with activity in surgery rooms*

- *Interpretation of pre-surgical haemato-biochemical profile*
- *Preparation of an intravenous administration fluid line*
- *Preparation of the surgical field (estimation of appropriate extension, trichotomy, scrubbing)*
- *Preparation of a surgical table with sterile instruments*
- *Preparation of a circuit for inhalation anaesthesia*
- *Laryngoscopy and orotracheal intubation*
- *Intravenous administration of drugs for anaesthetic induction*
- *Loco-regional anaesthesia*
- *Assistance during anaesthesia (clinical and instrumental monitoring, management of medical records)*
- *Assistance during surgery*
- *Application and removal of sutures.*

e) *procedures dealing with activity in the necropsy room*

- *Post-mortem examination of mammalian species;*
- *Recognition of gross pathological lesions;*
- *Sampling and handling of the pathological specimens;*
- *Fixation and recording of the sampled specimens;*
- *Writing an informative post-mortem report.*

Describe clinical exercises in which students are involved prior to the commencement of clinical rotations.

During their 3rd year, all students attend the course “Veterinary Medical Propaedeutics and Diagnostics” (Table 4.2ter), during which they are trained how to:

- record the patient signalment and collect a relevant history of the animal and its environment;
- handle and restrain an animal safely and humanely;
- perform a complete clinical examination;
- collect, preserve and transport samples for laboratory tests and to broadly interpret the corresponding results.

In the same curricular year, all students are involved in blood/faecal sampling and/or prophylactic anti-parasitic treatments in cattle and small ruminant farms, including the Teaching and Experimental Farm. On occasion, outside kennels, piggeries and rabbit farms have been also visited.

In the “new” curriculum, first training on handling and restrain procedures (and some basic veterinary procedures) on a range of domestic animals is provided to all students during the first semester. Training is scheduled in small groups. Five mornings are spend by each group at the Experimental and Teaching Farm, one the Faculty kennel and two at the International Equine Centre, in Druento (15 km from the Campus).

Outline the student involvement in the emergency and hospitalisation activities of the clinics.

As already illustrated under previous headings of this paragraph, all students are compulsory involved in the hospitalization and intensive care activities at the VTH. Involvement in emergency activities has now become possible following the recent opening of the emergency services for equines, farm animals and companion animals. Students are involved while on rotation at the unit for hospitalization, intensive care and emergency cases of the VTH, or following an option for attending the equine or farm animal emergency services.

Specify student participation in the activities of the mobile clinic and indicate whether or not the hours spent in the mobile (ambulatory) clinic are included in those in Table 4.2.

All student in their 4th and 5th year must participate in the Mobile Clinic work, independently of their vocation. The hours spent in the Mobile Clinic work (N=50) have been included in Table 4.2.

4.1.4 OBLIGATORY EXTRAMURAL WORK

These are training periods that are an integral part of the curriculum, but which are taken outside the Faculty. Please make a distinction in respect to the nature of the work, for instance work on farms, training in a veterinary practice or in Food Hygiene/Public Health with a commercial or government organisation.

All students are requested 200 hours of obligatory extramural work, of which 100 devoted to practical training in Veterinary Food Hygiene/Public Health subjects and 100 to practical training in Animal Production subjects. Students at the Faculty can be provided extramural training in Veterinary Food Hygiene/Public Health exclusively by the competent services of the ASLs, the territorial units of the National Socio-Sanitary System. An agreement exists with the Piedmont Regional Veterinary Public Health Services permitting provision of this training at all ASLs in the region. Agreements have also been signed with a limited number of extra-regional ASLs (see Chapter 5, Annex).

Extramural training in Animal Production subjects can be provided by more institutions. Besides the fore mentioned ASLs, they include (following agreement):

- animal food production plants;
- production animal farms;
- equine breeding and reproduction centres.

For details, see Annex 1 of Chapter 5.

In fact, the majority of the students (68% in the last 3 years) elicit ALSs as the location for training in Animal Production. It is worth stressing that ASLs are currently organized in three functional specialized areas. Two (the so called “Area B” and “Area C”) are run by Official Veterinarians whose daily activity is fully consistent with the objectives of one or the other training period.

Table 4.5: **Obligatory extramural work that students must undertake as part of their course**

Nature of work	Minimum period ²⁾		Maximum period ²⁾		Year in which ¹⁾ work is carried out
	hours	% of total study time	hours	% of total study time	
Practical Training in Food Hygiene/Public health	100	0*	100	0*	Usually 4 th
Practical Training in Animal Production	100	0*	100	0*	Usually 4 th
TOTAL	200	0	200	0	

¹⁾ If these periods of extramural work take place during vacations, then the preceding academic year should be entered in the last column of Table 4.5; ²⁾ Where applicable.

* Legally, 100 hours of extramural work corresponds to 4 credits of full practical activity (and no hours of "Home" work). Obviously, this does not mean that part of the time budget can not be dedicated to "back office" activities (e.g., document consultation) assimilable to study time.

Training by the Official Veterinarians is carried out according to a flexible program in which a bilaterally agreed list of activities (the so called "Minimum Requirements") must be fulfilled. The list is available on the Faculty web for both periods of Obligatory extramural work

(http://veterinaria.campusnet.unito.it/cgi-bin/home.pl/View?doc=guida_studente/guidastudente0708.html).

Please indicate the guidelines pertaining to this activity, and the manner by which it is assessed.

Student may apply for extramural training periods once they have positively passed the exams of "Food Hygiene and Technology", and have cumulated a minimum of 10 credits in Animal Production subjects. A list of external tutors at each eligible location is provided to students for a first contact. Once accepted by the host institution, it is up to the external tutor to organize the student's schedule, verify attendance to activities (by signing the student's logbook) and, finally, formulate a mark. The mark will be ratified by an internal responsible (one per period) appointed by the Faculty Board. She/he will also formally check the consistency of activities reported in the student's logbook with the list of "minimum requirements".

4.1.5 SPECIFIC INFORMATION ON THE PRACTICAL TRAINING IN FOOD HYGIENE/PUBLIC HEALTH

Besides the 100 hours of extramural training (see previous paragraph), other practical training in Food Hygiene/Public Health subjects is provided to all students for a total amount of 75 hours, as reported in Table 4.2.

In particular, students are involved in practical sessions dealing with:

- ante mortem inspection;
- post mortem inspection;
- evaluation of the pre-operative and operative hygiene of a slaughterhouse, with compilation of a checklist;
- identification of seawater animal species;
- freshness evaluation, and inspection of seafood for macroparasites;
- HACCP;
- audits;
- sampling to investigate food safety;
- sampling to investigate conformity of working spaces to legislation;
- report writing;
- milk and dairy products technology and inspection;
- meat and meat products technology and inspection;
- food products labelling.

The locations where these practical sessions are carried out are the Faculty slaughterhouse (8 entries, 24 hours/student), the teaching laboratories (7 entries, 17 hours/student), a lecture hall (videos on slaughter of varied production animals, 5 entries, 10 hours/student) and a variety of outside plants (overall, 6 entries, 24 hours/student). Members of the teaching staff are present at each practical session. Sessions are usually in small groups (5-10 students), with the exception of the visits to outside plants, which are organized in groups of 20-25 students.

Describe arrangements for teaching in a slaughterhouse and/or in premises for the production, processing, distribution/sale or consumption of food of animal origin.

Through agreements with the management of the plants or the Official veterinarians, the Faculty has regular access to several types of outside plants. Each group of students visits approximately one plant in each type in succession:

Milk and dairy products:

- ABIT PIEMONTE (dairy products) - Corso Allamano 24, 10095 Grugliasco (TO)
Tel: +39 011 4083011 - 011 7805552
- Centrale del Latte di Torino (milk and dairy products plant) - Via Filadelfia 220
10137 Torino Tel: +39 011 3240200 Fax: +39 011 3240300 E-Mail:
posta@centraledelatte.torino.it
- IGOR (dairy products) - Strada statale del Sempione 28062 Cameri (NO)
Tel.: +39 0321 2001 Fax: +39 0321 622740 E-Mail:info@igornovara.it
- Caseificio Pugliese S.P.A. (milk and dairy products plant) - Via Elia 10 10020
Lauriano (TO) Tel: +39 011/21.73.100 /+39 011/21.73.100 Fax: 011/91.46.496
E-mail: info@caseificiopugliese.com

Meat products:

- Raspini S.p.A. (meat products plant) - Via Piscina 73 10060 Scalenghe (TO)
Tel.: +39 011 9869600 Fax: +39 011 9869800 E-Mail: info@raspinispa.it
- Prosciuttificio Rosa S.p.A.(meat products plant) - Via Poirino 21 10046 Isolabella
(TO) Tel.: +39 011 9463255 Fax: +39 011 9463266 E-mail: info@prosciuttirosa.it
- Brizio s.r.l. (meat products plant) - Regione San Bartolomeo 5 12020 Venasca
(CN) Tel. +39 0175 567274 / +39 0175 567274 Fax +39 0175 567554
E-Mail: info@briziosalumi.com

Collective catering services:

- three canteens of the University of Torino, including the one in the Grugliasco
Campus centrally managed by E.D.I.S.U. Via Madama Cristina 83 10126 Torino
Tel: 011 653 1111 / +39 011 6531111 Fax: +39 011 6531150
E-Mail: edisu@edisu-piemonte.it
- canteen and kitchens of the Sant'Anna Hospital - Corso Spezia 60/ Via Ventimiglia
3 10100 Torino Tel.: +39 011 313.4355 Fax: +39 011 313.4631
Email: urp@oirmsantanna.piemonte.it

- canteen and kitchens of San Luigi Hospital - Regione Gonzole 10 10043 Orbassano (TO) Tel: +39 01190261 Fax 0119026831
E-mail: urp@sanluigi.piemonte.it

Wholesale markets:

- Mercato Ittico di Torino (wholesale fish market establishment) Corso Ferrara 46 10151 Torino Tel.: +39 011 4427800 Fax. +39 011.4427810
E-Mail: Mercato.Ittico@comune.torino.it
- Docks Market (wholesale market establishment) Via XXV aprile 206 10042 Nichelino (TO) Tel.: +39 011 - 3982831 - 3982839 Fax: +39 011 - 3580058/83

Frozen products storage plants:

- SAFIM (Frozen products storage plant) Via Supeja Gallino 20/28, frazione Palmero 10060 None (TO) Tel. +39 011 550 7150 / 011 550 7150 Fax +39 011 550 7160
E-mail: info@safim-srl.it

Slaughterhouses and cutting plants:

- Macello Comunale di Torino (bovine, ovine slaughterhouse) Servizi Veterinari Via Traves 43 tel. 011.439.5200 E-Mail: urp@asl3.to.it
- Euroavicola (poultry slaughterhouse) Via Alpi Graie 10 10098 Rivoli (TO) Tel.: +39 011 9563014 Fax : + 39 011 9563016 E-Mail : info@euroavicola.avisco.it
- Monge (poultry slaughterhouse) Via Savigliano 31 12030 Monasterolo di Savigliano (CN) Tel.: +39 0172 747111 Fax: +39 0172 747198/+ 39 0172 747199
E-Mail: info@monge.it

Indicate the distance to slaughterhouses where students undergo training, and the species covered. Outline the structure and the frequency of these visits (group size, number of trainers, duration, etc.).

As anticipated (for more details see par. 6.1.6), a slaughterhouse is present in the Campus. It is a small commercially operated slaughterhouse meeting EU regulations, hence a “true” slaughterhouse and the principal location where slaughterhouse-related training is provided to students. Nevertheless, during practicals of the course “Food Inspection, control and certification”, students undergo some training also in outside

slaughterhouses. In particular, each students has access (at least) to an outside large slaughterhouse for cattle and small ruminants. On the spot, the groups of students are assisted by the Official Veterinarian and the teachers.

Additional slaughterhouses are visited under the guidance of the external tutor, during the obligatory extramural period in Food Hygiene/Public Health.

4.1.6 RATIOS

These must be delineated from Table 4.1, 4.2 and 4.3.

For explanation about ratios, see the section 'Main Indicators' of **Annex I**. The indicator derived from the ratios established is the denominator when the numerator is set 1.

4.1.6.1 GENERAL INDICATORS TYPES OF TRAINING

As indicated in tables 4.1, 4.2 and 4.3, the figures for the numerators and denominators are defined as follows:

Figure	Total no teaching hours
A	Lectures
B	Seminars
C	Self directed learning
D	Laboratory and desk based work
E	Non-clinical animal work
F	Clinical work
G	Other

Please give the following values:

				Denominator
R 6:	Theoretical training (A+B+C)	2364	1	0.63
	Supervised practical training (D+E+F)	1497	0,63	
R 7:	Clinical Work (F)	675	1	1.22
	Laboratory and desk based work + non-clinical animal work (D+E)	822	1,22	

R 8:	Self directed learning (C)	=	$\frac{40}{3861}$	=	$\frac{1}{96,5}$	96.5
	Teaching load (A+B+C+D+E+F+G)					

4.1.6.2 SPECIAL INDICATORS OF TRAINING IN FOOD HYGIENE/ PUBLIC HEALTH

						Denominator
R 9:	Total no. hours vet. Curriculum ¹	=	$\frac{3861}{355}$	=	$\frac{1}{0.09}$	0.09
	Total no. curriculum-hours Food Hygiene / Public Health ²					
R 10:	Total no. curriculum hours Food Hygiene / Public Health ²	=	$\frac{355}{100}$	=	$\frac{1}{0,28}$	0.28
	Hours obligatory extramural work in Veterinary inspection ³					

Origin numerators, denominators:

- 1: Total as derived in Table 4.1
- 2: Total as derived in Table 4.1, Subject 5
- 3: Figures to be taken from Table 4.5

4.2 COMMENTS

Please comment on the way in which the veterinary curriculum prepares the graduate for the various parts of the veterinary profession, especially under the specific conditions prevailing in your country/region.

Taking into account only obligatory activities (and excluding the Dissertation work), the “old” curriculum at the Faculty assigns: 30.7 % of total “University” work time budget to basic subjects and sciences (1186 hours); 44.6% to clinical sciences (1722 hours), 13.5 % to Animal Production (523 hours); 9.2% to Food Hygiene/Public Health (355 hours). Supervised practical activities account for 38.8% of the “core” time budget (1497 hours out of 3861). It is our view that this is (better say was, since a “new” curriculum is under implementation) an equilibrated curriculum, i) covering the study programme referred to in the Directive 2005/36/EC, ii) including a reasonable amount of practical training and iii) favouring, rather than “tracking”, the acquisition of basic essential competence in different aspects of the veterinary profession. Different forms of feed-back, some collected by the Faculty Tutoring and Job Placement Service, indicate that the large majority of new graduates have access to the profession in the first year/three years from graduation and then only exceptionally (and for personal reasons) abandon it despite the increasing discomfort for the low average income. Some new graduates also succeed in establishing in foreign countries as practitioners (e.g., in France) or are employed by international companies and organizations.

Notwithstanding, the Faculty management is well aware that data from the labour market are only a rough indicator of the quality of the teaching provided and perceives that more sound evaluation tools of its “products” would be necessary at this stage of its organization. By no means, one of the most advisable ones would be a joint working committee with local representatives of the different branches of the profession, i) to collect and analyse, with quali-quantitative approach, the feed back from colleagues and institutions getting in touch with the new graduates; ii) to transfer the analyses (and broad proposals for improvement) to the competent “technical” body at the Faculty, namely the Teaching Affairs Committee. Recent examples exist that the Faculty and the profession may profitably collaborate in teaching matters for the benefit of the students and the profession itself (see par. 2.1 and 7.1.9). Receiving operative proposals by the profession would be relatively easy in the current phase of implementation of the “new” curriculum.

In the meanwhile, teaching and exposure of students to selected professional niches of some interest in the region, namely those one dealing with swine, poultry and rabbit production and health, have been already focused as worth improvement. This need has been received in the list of short-term objectives proposed by the Internal Quality Control Committee, that the Faculty Board have deliberated in June 2010 (see also par. 1.1).

Please comment on the way the curriculum is structured and reviewed, on the major developments in the curriculum, now and in the near future, and on the local conditions or circumstances that might influence the ratios in 4.1.6.

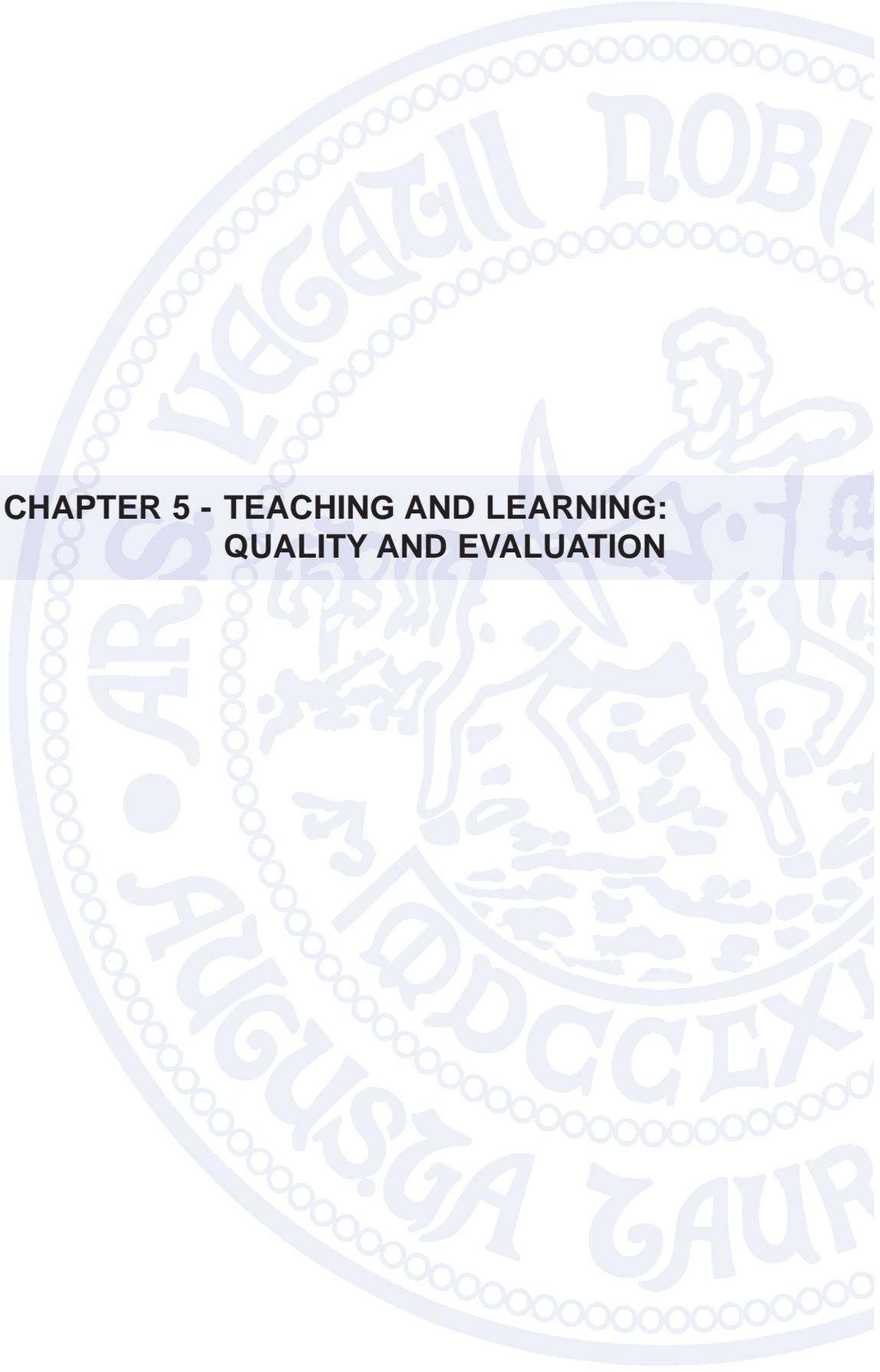
Shift to the “new” curriculum, currently in progress, will imply further reduction of theoretical hours and a corresponding increase in supervised practical training. In addition, more lecture-free time will be available to 5th year students to take the maximum profit from practical activities provided. In general, the new framework is good from a student-centred perspective. Nevertheless, concern exists by part of the teaching staff over the effects that the diminished amount of factual information transmitted will have on the “culture” of students and, therefore, on their capacity to positively react to difficulties in a rapidly transforming professional context. This could be a realistic scenario. Still, much has to be done at the Faculty to modify the teaching techniques in the direction indicated by the “Bologna Process”, namely towards problem-based teaching and computer based self-learning. It will be more a matter of innovating teaching methods than changing (once again) the curriculum structure if the “new” graduates will authentically meet the expectations of the profession and the society. In this sense, please see also par. 5.1.

So said, there is a structure of courses centred on individual animal species rather than on disciplines (e.g., “Equine medicine and surgery” instead of flashes dedicated to equines in the courses of “Veterinary Medicine” and “Veterinary Surgery”) that several Faculties across Europe and overseas have adopted since decades. The Italian academia has historically (almost) ignored this model for several reasons, that it would be inappropriate to discuss here. It would be interesting if our Faculty, though with due gradualness, could play a breaking role in this largely experimented direction, eventually starting with a model course centred on swine or “minor species”.

4.3 SUGGESTIONS

If the denominators in 4.1.6 are not meeting the range as indicated in Annex I, **Supplement A**, what can be done to improve the ratios?

As shown in par. 4.1.6.1, all denominators relative to the “old” curriculum meet the expected range. It has been calculated by the Teaching Affairs Committee, that no ratio is at risk of losing consistency with reference values indicated in the SOPs, after implementation of the “new” curriculum.

A large, light blue watermark of a university seal is visible in the background. The seal is circular and features a central figure, possibly a saint or scholar, holding a book and a staff. The text around the seal includes "VEGETAL NOBIS" at the top, "ARS" on the left, "AUGUST" at the bottom, and "TAUR" on the right. The seal is surrounded by a decorative border of small circles.

109 **CHAPTER 5 - TEACHING AND LEARNING:
QUALITY AND EVALUATION**



A study point available to students



Chapter 5 – TEACHING AND LEARNING: QUALITY AND EVALUATION

5.1 FACTUAL INFORMATION

5.1.1 THE TEACHING PROGRAMME

Describe the measures taken to ensure co-ordination in the teaching between different departments, sections, institutes and services

The final responsibility of all teaching activities belongs to the Faculty Board, and therefore to the Dean. The main duty of both is to supervise and coordinate all the Degree Courses offered by the Faculty. The responsibility to plan and organize the teaching programme is in charge of the advisory Teaching Affairs Committee and the deliberating Council of the Degree Course. To ensure co-ordination in the teaching between the different institutions and people involved, key roles are entrusted to the following functions:

The Vice-Dean for Teaching Affairs. She/he (currently she) chairs the Teaching Affairs Committee, a body with an advisory role for all the teaching affairs. Noteworthy, in this committee the number of students is equal to the number of teachers (for details about the composition of the Committee, please see par 2.1). The Vice-Dean for Teaching Affairs defines the agenda of the meetings of the Teaching Affairs Committee and may also summon meetings with the semester and integrated course coordinators (see later in this paragraph), and with the students' representatives, in order to give timely answer to any problem encountered during the academic year. The Vice-Dean for Teaching Affairs also supervises, on behalf of the Dean, the organization of practical activities at the VTH and the Teaching and Experimental Farm. In addition, she/he chairs the Practical Training Committee and is permanent member of the Veterinary Teaching Hospital Committee.

The Teaching Affairs Committee. This advisory body has the following mission (as per article 6 of the Faculty Teaching Regulations):

- mediate the discussion between teachers and students;
- make preliminary analysis on issues related to the efficiency, functionality and evaluation of teaching, study plans, tutoring and other services provided to students;
- act as liaison with the Council of Degree Course and with the Departments for issues related to teaching activities;
- propose any additional educational activities;

- submit to the Council of the Degree Course, and then to the Faculty Board, suggestions for the management of resources allocated to education (educational visits, practical exercises and resources for hiring staff).

The Practical Training Committee. This “specialized” advisory body collaborates with the Teaching Affairs Commission with the following mission (as per Annex 2 of the Faculty Teaching Regulations):

- define the “minimum skills” to be provided during the practical training periods;
- co-ordinate the practical training activities;
- define the pre-requisites (e.g., amount of accumulated credits, specific exams passed) to be admitted to the practical training periods;
- define the criteria for scheduling and management of rotations in the Faculty premises;
- update the list of outside institutions and premises where students may carry out training periods;
- give an advice on the opportunity to reiterate agreements with the fore mentioned institutions and premises for practical training of students;
- give an advice on any request, usually by individual teachers, about new agreements with outside institutions and premises for practical training of students. In these cases, the Committee evaluates the professional level of the structure, the quality of the structures/equipment available, the proposed formative projects and the presence of one or more qualified veterinarians wishing to take the responsibility to supervise students.

The President of the Council of the Degree Course of Veterinary Medicine. This figure acts on behalf of the Degree Course and works in strict collaboration with the Vice-Dean for Teaching Affairs, in order to apply the adopted teaching policies. The Council she/he chairs is the deliberating body on all matters dealing with planning, organization and co-ordination of teaching activities of the Degree Course in Veterinary Medicine. The Council operates taking in due account the analyses and suggestions of the Teaching Affairs Committee, the Practical Training Committee and the Internal Quality Control Committee. The President is in charge of drafting the annual report on all teaching activities of the Degree Course, as requested by the University Senate.

The Coordinators. The coordinators for each semester and each integrated course are appointed by the Council of the Degree Course. They cooperate with the Teaching Affairs

Committee for organization purposes.

The tasks of integrated course coordinators are identified by the Degree Course Teaching Regulations (art. 6) as follows:

- to perform, within the integrated course of competence, all tasks requested for teaching coordination, including practical activities;
- to collect and coordinate the official teaching programs performed in each module within the course of competence;
- to prepare a brief annual report on the teaching activity. This report will be forwarded to the President of the Council of the Degree Course, and used to draft the annual report requested by the Academic Senate;
- to inform the semester coordinator about the date of exams for the academic year;
- to coordinate and supervise the procedures to verify attendance of students.

The Degree Course Teaching regulations also define the tasks of the semester coordinators, which are:

- to coordinate all teaching activities of the semester of competence, with special attention to practical activities;
- to schedule, in advance, tests and examinations for all courses included in the semester of competence, in order to avoid overlapping and facilitate the exams advancement of students;
- to inform the Faculty Teaching Manager about the dates of all exams, so that the information may be published on the Faculty web-page at the beginning of each academic year;
- to organize events such as seminars and meetings within the semester of competence, with the aim of integrating multidisciplinary topics;
- to assist the Dean's delegates in the preparation of the class schedule.

The Faculty Teaching Manager. She/he (currently she) works in the Teaching Affairs Secretary Office with the mission of supporting the management of the Faculty in planning and monitoring teaching activities. She/he has the responsibility of scheduling rounds of students for practical activities in the VTH and for outside activities carried out with the Mobile Clinic. In addition to this organizational role, the Faculty Teaching Manager has the tasks of tutoring and supporting students in their course of study, managing a student information desk and being responsible for updating the Faculty web-site on matters dealing with undergraduate education. She/he also collaborates in activities of retrieval and processing of data which are functional to conduct internal and external audits for the

control of quality assurance process.

Describe the pedagogical approach of the institution. In particular, describe the use of newer approaches, such as problem-based learning, interactive computer-assisted learning,

According to the Bologna Declaration, the Faculty policy in years has been to reduce lectures and increase self learning and hands-on activities in laboratories, farms, plants or in clinical practice. This policy was fully incorporated and strengthened in the new university course introduced by the Ministerial Decree 22 October 2004, n.270, which was first implemented at the Faculty in the academic year 2009/10. The new curriculum is characterized by a significant increase: i) in the number of hours dedicated to practical activities; ii) in the number of disciplines involved in practical training. This improvement is evident since the first year of the course, because students in their first semester now experience 59 hours of Animal Handling and Management with activities in small groups on various animal species. This variation was introduced in order to accustom students to contact with animals from the very beginning of their studies and to meet the EAEVE request of a training that “takes place in groups that are small enough to ensure that all students are able to gain hands on experience”.

The innovation of the last few years in the library services have introduced changes which have allowed for improvement in teaching and learning methods. The library organises guided visits for students so that they can come to know this service better. Training courses are also offered on the use of electronic resources. In addition, through the library web page, students can renew or reserve books on loan and access the electronic collection (books, reviews, theses, scientific paper, databases etc). All the information is available at:

<http://www.unito.it/unitoWAR/appmanager/biblioteche5/G101?nfpb=true>

Important pedagogical advances have also been made with the implementation of the Faculty web site (<http://veterinaria.campusnet.unito.it>), where teachers and other Faculty members can upload reference material of lectures, multimedia materials and web-links to help students developing autonomous work and improving their knowledge. In the lectures of most of the subjects, Power-point presentations are used and they are made available for the students in the web site as a way to facilitate them in following the course and in self-learning. Course notes are also available on the web for several subjects.

Multimedia materials, helping students to develop autonomous work, are available to students after login to the Faculty webpage.

Wireless connections to Internet are available throughout the campus and students can

also access interactive and 3D videos, technical manuals, in-depth reference materials, etc. In order to provide the students full access to computer resources and Internet, the Faculty has two computer labs comprising 71 computers all together, and additional computers in the Campus Library (20 computers). Therefore, during the current academic year 2009/10 the ratio of the number of computers available for the students in the Faculty is approximately 1 computer every 10.8 students.

Interactive computer assisted learning is part of activities in the courses of Veterinary Physiology and Endocrinology, Statistics, Animal Nutrition, Pathology and Prophylaxis of Viral Diseases of Domestic Animals, Veterinary Epidemiology, and Pathology, Radiology and Surgical Veterinary Propaedeutics.

Problem-based learning is not as widespread as it would be desirable and this teaching method, currently adopted in a minority of courses, is undoubtedly worth of improvement.

In order to stimulate the use of other novel teaching methods (e.g. interactive computer-assisted learning), introductory courses for teaching staff to use the Moodle e-learning platform - being recently introduced by the University of Turin as a innovative teaching methodology - have been organized also at our Faculty:

<http://elearning.unito.it/veterinaria/>

Indicate the extent to which course notes are used to supplement or substitute for the use of standard veterinary textbooks

As anticipated, each teacher has her/his own web page, that serves as an intranet where it is possible to upload notes and other resources for students. In addition, some disciplines have their own web site. Access to web-based resources is free.

All teachers recommend some bibliography which is available – most often in multiple copies - in the Campus Library or in subsidiary libraries in the departmental sections where teachers operate. Most teachers warn the students not to use their course notes as a substitute for standard veterinary textbooks, and invite them to consult textbooks (at least) before sitting for the exams. Feed-back from the Campus Library (*in situ* consultations, loan requests and the wear itself of several multiple textbooks) suggest that a proportion of students makes regular use of books. Furthermore, it is common experience of teachers to see personal copies of the recommended textbooks in the backpacks of the students sitting for the exams or attending the departmental sections for the Dissertation work. Notwithstanding, it would be unrealistic to deny that course notes and Power point presentations of lectures are still the most popular information source.

Describe (if applicable) any established or contractual arrangements that support undergraduate teaching between the establishment and outside bodies, e.g. farms, breeding centres, practitioners, state veterinary services, factories/processing plants, outside laboratories, etc. Briefly describe how these arrangements work out in practice in terms of the contact this provides for all students or for selected students.

At present, the Faculty has signed official collaboration agreements with various outside bodies in order to:

- provide the scenario for selected off-house practices under the guidance of teachers, which are mandatory for all students (e.g. during the Mobile Clinic rounds);
- permit students to complete their obligatory extramural work periods, tutored by Faculty teachers and under the guidance of external professionals;
- permit students to carry out elective practical activities (e.g. the so called APSs detailed in par. 4.1.2).

All students are covered by liability insurance during the official off-house activities.

The main agreement protocol is with Piedmont Regional Public Health Services, namely the Piedmont Regional Veterinary Service (RVS) and the local Public Health Units (ASLs), in which there are official veterinarians working in the following three main professional fields:

- Animal Health;
- Hygiene of Foods of Animal Origin;
- Hygiene and Control of Animal Breeding, Animal Production and By Products.

By accompanying the official veterinarians, students gain experience in matters related to public health, official controls and inspections at establishments. They also participate in control activities on feedstuffs and animal production, veterinary medicinal products and residues, sampling activities to verify specific microbial criteria, etc.

Every ASL is requested to appoint a contact person who is responsible for the conduct and evaluation of training activities, to be organized in compliance of formative objectives elaborated by the Practical Training Committee and listed in the Student Guide (http://veterinaria.campusnet.unito.it/cgi-bin/home.pl/View?doc=guida_studente/guidastudente0708.html).

The list of the contact persons at every ASL is also published on the Faculty web site (http://veterinaria.campusnet.unito.it/html/laurea_2livello/links_medicina_veterinaria/servizi_veterinari.pdf).

All students perform the obligatory extramural fieldwork in the Food Hygiene and Inspection area, for a total of 100 hours (4 credits), and in Animal Production area, for further 100 hours (4 credits).

Another agreement protocol is with the International Equine Centre (“Centro Internazionale del Cavallo”) in Druento (TO), 15 km away from the Campus. The centre, opened in 2007, is mainly committed to horse training, organization of national and international equestrian events and education at different levels. It is managed by a foundation in which UniTO participates with the Piedmont Regional Government and U.N.I.R.E. (Italian Union for the Improvement of Equine Breeds). The foundation is currently chaired by a Faculty teacher (Prof. Carlo Girardi). Since 2009, all students in their first semester spend 10 hours in the centre, gaining early exposure to horse handling and management under the guidance of a hired teacher and the Centre’s staff. Activities are scheduled in groups of 12 students. In addition, the centre is open to motivated volunteer students (e.g. during sport events) and to the late students wishing to spend there 100 hours of Elective Practical Activities (acronym APS, see par. 4.1).

In 2010, following recognition of some weaknesses in the practical teaching program by the Teaching Affairs Commission, new agreements have been signed with:

- the Equine Centre of the Italian Army “Scuola di Applicazione e Istituto di Studi Militari dell’Esercito” in Torino, 8 km away from the Campus, housing 42 horses mainly intended for horse therapy and military training. All late students will therefore have – in close proximity to the Faculty – the opportunity to gain hands-on experience on a range of clinical and horse therapy-related activities under the guidance of staffed teachers and two Army veterinarians;
- a full cycle pig farm (Azienda Agricola Piovano) in Chieri (TO), 25 km away from the Faculty, permanently housing 150 sows. Since October 2010, all students involved in rounds with the Mobile Clinic will visit the farm, gaining hands-on experience on a range of clinical and herd health-related activities under the guidance of a hired teacher.

Additional agreements aimed at practical training of students have been stipulated with different establishments. They are listed in Annex 1 of the present chapter, assembled for broad thematic areas. A summary is provided as follows:

THEMATIC AREA	NUMBER OF AGREEMENTS
ANIMAL FEED	2
ACQUACULTURE	1
COMPANION ANIMALS	17
EQUINES	11
EXOTIC ANIMALS	7
FARM ANIMALS	17
FOOD TECHNOLOGY AND FOOD SAFETY	3
RESEARCH CENTRES	6
VETERINARY PUBLIC HEALTH	21
ZOOLOGICAL CENTRES AND NATURAL PARKS	9

Describe the general learning objectives underlying the veterinary curriculum and how this is ensured.

As per Teaching Regulations of Degree Course in Veterinary Medicine, approved by the Faculty Board (http://veterinaria.campusnet.unito.it/html/laurea_2livello/links/medicina_veterinaria/regolamento_cls.pdf), general learning objectives are oriented to provide the scientific basis and the theoretical-practical education for practicing the veterinarian profession. In particular, it is clearly stated that the general learning objectives of the Degree Course are:

- acquisition of essential theoretical knowledge, with special focus on chemistry, biochemistry, anatomy and physiology arguments, in view of successive professional applications;
- acquisition of an adequate veterinary education, allowing graduates to operate in the fields of pathology, clinics, prevention of animal diseases, and the hygienic and quality control of foods of animal origin;
- acquisition of basic knowledge relative to man-animal relationships, characteristics of animal shelters, farm management, marketing, molecular biology, biotechnologies applied to genetics, reproduction and clinics;
- knowledge of a foreign language talked in the EU;
- acquisition of basic informatic, telematic and relational competences, functional to professional orientation and to the entrance in the labour market.

Attention to compliance with these general objectives is ensured by the intense and continuous review role played by the Teaching Affairs Committee, the Practical Training Committee and the Internal Quality Control Committee.

General learning objectives are developed through theoretical lectures, seminars, self-directed learning, practical demonstrations and activities in small groups carried out in the Faculty laboratories, VTH, Teaching and Experimental Farm, kennel, slaughterhouse, library and in outside plants and premises.

Describe how the Faculty collects the data required to ensure students are equipped with these Day-one skills (evidence of learning)

Providing solid evidence that students meet, on graduation, all the Day-one skills listed in Annex IV of the EAEVE SOPs is clearly a difficult task, and a structured system of evaluation skill by skill is not available at the moment. In fact, teachers at the Faculty are aware of the requested standard and try to fit the program of their courses, the teaching techniques, the examination methods and the tutoring of students during the Dissertation work to the development of several skills. So said, successfully passing interim and final exams, obtaining positive evaluations at the end of in-house and extramural practical training periods (see par. 4.1.3), adequately preparing and discussing the Dissertation work and finally passing the State Exam (see par. 2.1), all together are evidence that the graduate has met the learning objectives set by her/his teachers and the expectations of a group of external evaluators representing the profession.

Remarkably, in parallel with the implementation of the “new” curriculum, the Faculty Board has approved a detailed Practical Day One Skills document, drafted by *an hoc* working group including representatives of the different branches of the veterinary profession (please see 2-1 and http://veterinaria.campusnet.unito.it/html/laurea_2livello/dayone.pdf). The availability of this document, to which the new Students’ logbook has already conformed, is a fundamental step for the Faculty on the way of providing punctual evidence of learning for all requested skills.

5.2 THE TEACHING ENVIRONMENT

Describe the available staff development facilities, particularly in relation to teaching skills.

Regrettably, no significant staff development facilities in relation to teaching skills are currently available at the Campus and, in general, at UniTO.

Describe the available systems for reward of teaching excellence (e.g., accelerated promotion, prizes, etc).

In the whole country, no reward system for teaching excellence is available. Although the quality of teaching at UniTO is monitored annually, at present there are no economic incentives for those teachers whose evaluation by the students is suggestive of excellence in undergraduate teaching.

Describe other measures taken to improve the quality of teaching and of learning opportunities.

Lectures targeted to young teachers to discuss issues and difficulties in teaching and to provide suggestions on how to improve teaching skills have been organized, in the past, at the University level. However, this activity has not been carried out in the last 5 years.

In recent years, two Departments at the Faculty have allocated funds to encourage the international mobility of the young staff, hence permitting to motivated colleagues to get in touch with stimulating teaching environments. Over the past two years, following the decrease in available resources, this opportunity has no longer been provided.

In order to stimulate the use of novel teaching methods (e.g. e-learning), introductory courses to the use of Moodle e-learning platform have been recently organized for the Faculty's teaching staff. Moreover, students have been given the opportunity to have access to audiovisual material, self-learning didactic videos - related to different disciplines - available in streaming mode from a dedicated server:

http://veterinaria.campusnet.unito.it/cgi-bin/home.pl/View?doc=centri_e_servizi/sav/Video.html

5.1.3 THE EXAMINATION SYSTEM

Describe the examination system of the establishment, in particular:

- Is there a central examination policy for the establishment as a whole? If yes, by whom is it decided?

The rules of the examination system are clearly set up in the Teaching Regulations of UniTO (art. 23 and 24), which are approved by the University Senate, and in the Faculty Teaching Regulations (art. 24 and 25), which are approved by the Faculty Board.

- Are there special periods (without teaching) during the year for the examinations?

The Faculty Board, on suggestion of the Teaching Affairs Committee, sets the calendar of exam sessions at the beginning of each academic year. Once the calendar has been approved, at least five and no more than eight dates are proposed by every examination board (a different one for each course). In case of overlap or excessive clustering of exam dates between courses taught in the same semester, the semester coordinators are in charge of contacting examining boards to arrange alternative dates. Once agreed upon, all dates are made available on the Faculty's web page. Students wishing to sit for any examination have to appoint them on the web within the preceding week, and their list is therefore available to the teachers prior to exams. The published date of an examination cannot be advanced but only postponed for justified reasons. In this case, the appointed students must be promptly informed via the web page or via e-mails send by the Faculty Teaching Manager, according to urgency.

Examinations are held in three "classic" periods: January & February; June & July; September. Two additional short sessions (a few days) are scheduled in November and April. No teaching is allowed during the exam sessions, though occasional overlap with scheduled duties of students in the VTH or the Mobile Clinic may occur during the long "classic" exam periods. For the final dissertation, the Faculty Board fixes three sessions per year, usually in April, July and October.

- What form(s) of examination are used (written papers, multiple-choice questions, oral, practical clinical examination, continuous assessment, etc.,)

The examination board of any course is free to decide on the examination form(s). However, the form(s) must be detailed in the Students' Guide, available on the Faculty web site. The exams can be oral, written (in form of problem to solve, questions to develop, or multiple-choice questions to answer, reports to write on practices and clinical cases) or practical. Most lecturers use a mixed type of examination, and some assess theoretical knowledge and practical skills separately. In additions, one or more interim tests are provided in some courses, whose date is agreed upon by the teacher and the students during the teaching period. Passing any interim test entails a lighter workload during the final exam. Participation of students to interim tests is optional. The different forms of examination used are reported in the following table.

Table 5.1 – Forms of examination used at the DVM course

EXAMINATION FORM	N. DISCIPLINES (%)
Oral	19 (44.2)
Written	4 (9.3)
Report	1 (2.3)
Practical	1 (2.3)
Mixed	18 (41.9)
TOTAL*	43 (100)

* all subjects indicated in the Students' Guide 2010/11 have been computed, including elective courses.

- Is use made of external examiners?

Examinations take place in front of an examination board designated by the Dean for each course. The examination board is made up of three members: one has the role of President and is usually the senior teacher or the one giving more lectures on that course, the second is a teacher of the same course or a teacher in the corresponding area of knowledge or a closely related one, the third is a substitute and is usually not involved unless in case of absence of one of the other members. No external examiners are used but in the case of courses fully or partially taught by hired teachers. A remarkable exception is the Examination Board for the "State Exam" (compulsory for access of graduates to the profession) in which external examiners are the majority (8 out of 12). Non academic members of this Board are practitioners and Official Veterinarians with expertise in one of the following thematic areas: Animal Husbandry; Food Hygiene and Inspection; Internal Medicine, Prophylaxis and Avian Pathology; Surgery, Obstetrics and Gynecology. They are drawn by lot in a list of names prepared by the local Veterinary Chamber.

- How many retakes of an examination are allowed?

Students can sit at an examination for a maximum of five times during each academic year.

- Do students have to pass the examination within a certain time?

There is no time limit for passing examinations.

- Do students have to pass an examination before they can start other courses?

All courses regularly included in the study plan can be attended independently of previous career. Notwithstanding, the Council of the Degree Course and the Faculty Board, following the suggestion of the Teaching Affairs Committee, have agreed on a number of examinations that students have to pass before they can sit for the final examination of other courses. A list of these “propaedeutic” courses is reported in Table 5.2.

Table 5.2 – Examinations that students have to pass (right column) before sitting for the examinations listed in the left column.

EXAMINATION	PROPAEDEUTIC COURSE/S
Biochemistry	Propaedeutic Biochemistry and Physics
Veterinary Anatomy I	Histology, Embriology and Microscopic Anatomy
Veterinary Physiology and Endocrinology	Veterinary Anatomy I Biochemistry
Propaedeutic Biochemistry II	Propaedeutic Biochemistry I
Applied Biochemistry	Propaedeutic Biochemistry II
Histology, Embriology and Microscopic Anatomy	Animal Biology
Normal Anatomy	Histology, Embriology and Microscopic Anatomy
Veterinary Physiology and Endocrinology	Applied Biochemistry Normal Anatomy
Veterinary Physiology and Ethology	Applied Biochemistry Normal Anatomy

Veterinary Microbiology and Immunology	Animal Biology
Animal Husbandry	Animal Biology
Nutrition and Feeding	Veterinary Physiology and Ethology Veterinary Physiology and Endocrinology
General Pathology and Physiopathology	Veterinary Physiology and Ethology Veterinary Physiology and Endocrinology
Anatomy of the Locomotory System and Topographic Anatomy	Histology, Embriology and Microscopic Anatomy
Parasitology and Parasitic Diseases	General Pathology and Physiopathology
Veterinary Propaedeutics and Medical Diagnostics	General Pathology and Physiopathology
Veterinary Pharmacology	General Pathology and Physiopathology
Veterinary Toxicology	Veterinary Pharmacology Veterinary Propaedeutics and Medical Diagnostics Pathological Anatomy I
Pathological Anatomy I	General Pathology and Physiopathology
Bacterial Diseases of Domestic Animals and Avian Pathology	Microbiology and Immunology General Pathology and Physiopathology
Pathology and Prophylaxis of Viral Diseases of Domestic Animals	Microbiology and Immunology General Pathology and Physiopathology
Pathological Anatomy II	General Pathology and Physiopathology
Technology and Hygiene of Food Productions	Biochemistry Veterinary Microbiology and Immunology General Pathology and Physiopathology
Food Inspection, Control and Certification	Technology and Hygiene of Food Productions
Medical Pathology of Domestic Animals	Veterinary Propaedeutics and Medical Diagnostics
Veterinary Epidemiology	Physics and Medical Statistics Pathology and Prophylaxis of Viral Diseases of Domestic Animals Bacterial Diseases of Domestic Animals and Avian Pathology
Pathology of Animal Reproduction	General Pathology and Physiopathology
Veterinary Pathology, Surgical Propaedeutics and Radiology	Anatomy of the Locomotory System and Topographic Anatomy General Pathology and Physiopathology
Medical Clinics and Forensic Medicine	Veterinary Pharmacology Veterinary Toxicology

	Medical Pathology of Domestic Animals
Veterinary Anaesthesiology and Surgical Clinics	Veterinary Pharmacology Medical Pathology of Domestic Animals
Veterinary Obstetric Clinics	Veterinary Pharmacology Pathology of Animal Reproduction

5.1.4 EVALUATION OF TEACHING AND LEARNING

Describe the method(s) used to assess the quality of teaching and learning in the Faculty.

The main tool used to evaluate the quality of teaching in the Faculty is a satisfaction survey that students are invited to join twice a year. The objective of the survey is to stimulate a self-evaluation process based on first hand opinion of the principal stakeholders. In addition, the continuous measurement provides useful data for historical comparison, which is a fundamental step to improve the teaching organization.

Students perform the evaluation anonymously, by connecting to a dedicated website (<https://fire.rettorato.unito.it/edumeter2/>). The connection is allowed only during the so called “evaluation window”, a period of 3-4 weeks towards the end of each semester. Though access to the questionnaire can be from any computer, students appreciate the offer to connect in groups during a pause in lecture time, under the guidance of the Dean’s Delegate for Self Evaluation of Teaching. This offer dates back to 2008. The on line procedure is cheap and the results are immediately available to authorized users (see below).

The satisfaction questionnaire is divided into three sections: the first one deals with the student’s profile and her/his university career; the second includes the evaluation of the Degree course in general (questions 1 to 4); the third includes the evaluation of the individual courses attended (questions 5 to 16). In the second and third section, the student is expected to answer to each of the 16 questions with a mark ranging from 1 (absolutely no satisfaction) to 4 (full satisfaction).

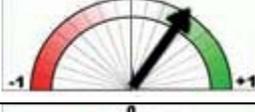
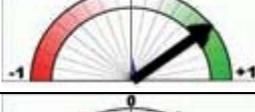
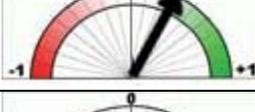
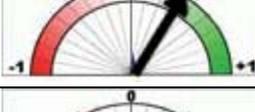
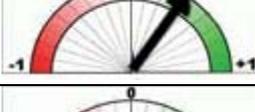
The output of the survey are general and individual reports. The first ones are a cumulative balance of all courses taught in the semester or year, while the second deal with the single courses.

The general reports are available on the web to both students and teachers (<http://fire.rettorato.unito.it/edumeter2/statistiche/facolta>). Individual reports are deemed strictly confidential and each teacher can only have access to her/his own evaluation. Only the

Dean, the Dean's Delegate for Self Evaluation of Teaching and the President of the Degree Course can have access to the general and individual reports.

In Figure 5.1, an example is given of how the "core" table of the general report (relative to all courses taught during the last academic year) looks like. Data are from the last survey carried out (relative to the academic year 2009/2010).

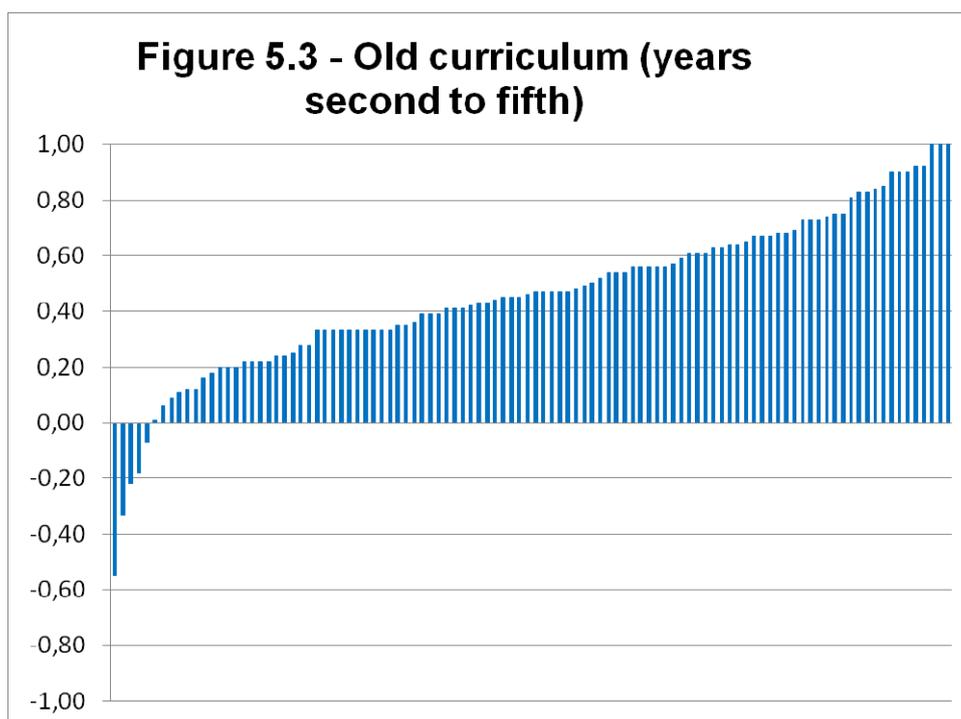
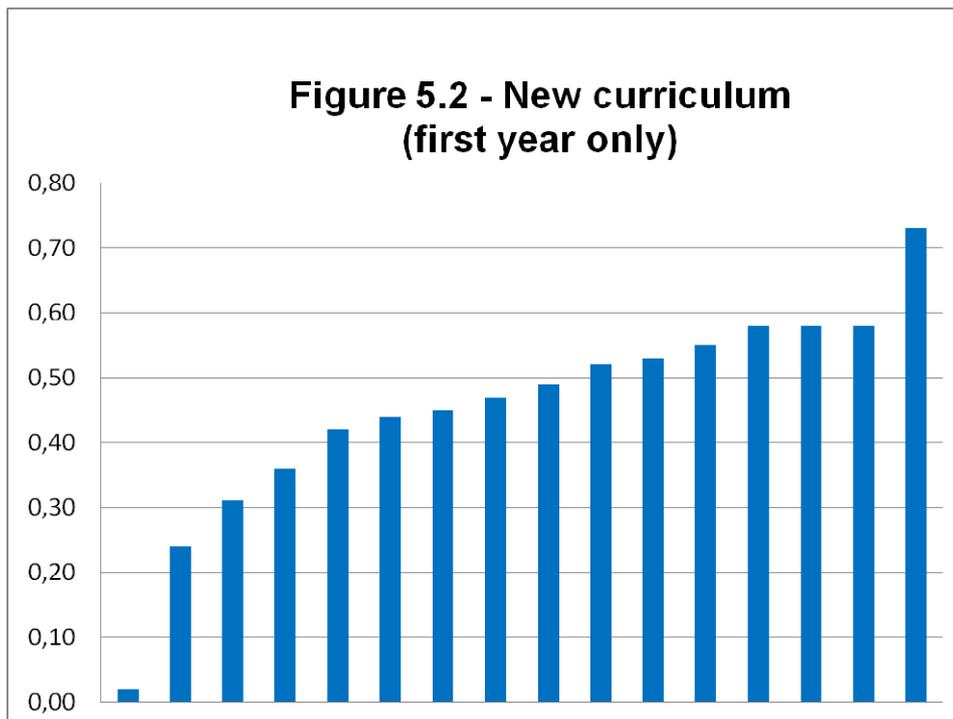
Figure 5.1

QUESTIONS	SATISFACTION INDEX*	ANSWER %			
		1	2	3	4
1) <i>Is the study load acceptable?</i>	 0,04	5,23	35,75	53,71	3,04
2) <i>Is the organisation (time table, interim tests, final exams...) of the teaching period acceptable?</i>	 -0,17	13,83	47,72	36,26	0,84
3) <i>Are the lecture rooms adequate?</i>	 0,40	5,40	15,18	42,83	36,09
4) <i>Are the rooms and equipments for practical activities adequate?</i>	 0,49	2,03	8,45	51,01	35,98
5) <i>Have the evaluation criteria been clearly defined?</i>	 0,49	2,64	12,03	42,93	40,08
6) <i>Is the time table respected?</i>	 0,58	1,43	6,74	43,30	46,39
7) <i>Is the teacher available for clarifications and explanations?</i>	 0,62	0,77	3,36	36,43	39,07
8) <i>Is the student workload adequate to assigned credits?</i>	 0,33	5,73	13,19	52,32	24,38
9) <i>Was the students' knowledge sufficient to understand the topics of the course?</i>	 0,36	2,22	16,53	54,00	24,29
10) <i>Is the study material (suggested or supplied) adequate?</i>	 0,41	4,13	13,61	46,70	32,51
11) <i>Are the integrative activities (practicals, laboratories, seminars) useful ?</i>	 0,53	2,32	9,40	36,30	40,43
12) <i>Does the teacher stimulate the students' interest for the subject?</i>	 0,39	5,66	15,35	41,68	34,88

13) Does the teacher explain the matter clearly?		0,49	2,70	11,49	43,47	39,90
14) Is the teacher able to highlight the fundamentals of the subject?		0,49	2,45	10,98	45,44	38,17
15) Am I overall satisfied with how the course was carried out?		0,43	3,13	12,68	48,01	32,99
16) Am I interested to the matter of this course (independently from how it has been carried out)?		0,50	2,93	12,16	40,02	42,28

(*) The satisfaction index may range from -1 (when all student answer “absolutely no satisfaction”) to +1 (when all student answer “full satisfaction”). The central value, 0, represents the equilibrium between negative and positive evaluations. Values below 0 indicate prevailing negative evaluations. Values above 0 indicate prevailing positive evaluations.

The following Figures 5.2 and 5.3 (relative to the “new” and “old” curriculum, respectively) illustrate the overall satisfaction of the students for the individual courses evaluated. Bars correspond to the “satisfaction index” (see legenda of Figure 5.1) relative to question 15 (“Am I overall satisfied with how the course was carried out?”).



Besides the “main” satisfaction questionnaire, students are requested to fill up additional satisfaction questionnaires (5 in total) aimed to evaluate the practical training periods which are not directly connected to courses (see par. 4.1.3), the APSs (elective practical activities) and the whole Degree course just before graduation.

Parameters currently used to evaluate the quality of learning in the Faculty are the following:

- the performance of students during interim and final exams, e.g., failure rates, average marks, and the distribution of marks. Such data are available in the website (http://veterinaria.campusnet.unito.it/html/didattica/statistica_2007_2009.pdf) and in the annual report on teaching activities drafted by the President of the Council of the Degree Course;
- the performance of students during the practical training periods which are not directly connected to courses (see par. 4.1.3). Such data are available in form of marks for both obligatory extramural periods (par. 4.1.4) and all rotations at the VTH;
- the performance of students during presentation and discussion of the Dissertation work;
- feed back from teachers, which are requested - on their turn - to fill up a satisfaction questionnaire for each of the courses taught in the year. Amongst the several facets of teaching which this questionnaire explores, there are questions dealing expressly with the evaluation of students' attention, interest and personal involvement in lectures and practicals, and a broad evaluation of students' performance during the exams.

Indicate whether the evaluation is a Faculty procedure, or one set up by individual departments, by students or by individuals.

The evaluation of teaching by means of the “main” satisfaction survey by the students is a procedure that all faculties at UniTO are bound to implement every year since 2002. The procedure is supervised by the Self-Evaluation Committee of UniTO, which will include a broad discussion of the results in its annual report (see also par. 1.1). At the Faculty, the Dean's Delegate for Self-Evaluation of Teaching is the authority in charge to promote the survey amongst students and to favor the compilation of questionnaires at the end of each semester. She/he is also in charge to preliminary analyze the general and individual reports as soon as available on the dedicated UniTO website, and to present the results for debate at the Teaching Affairs Committee.

Compilation of the other satisfaction questionnaires (see above) is a Faculty procedure, carried out in the frame of the Quality Assurance policy. The Faculty Teaching Manager is

the figure in charge to: i) promote and organize the survey; ii) preliminary analyze the questionnaires; iii) present the results for debate at the Teaching Affairs Committee or the Practical Training Committee. Conclusions and proposals for improvement are finally brought to the attention of the Internal Quality Control Committee, which utilizes them (and the “main” satisfaction questionnaires) for definition of the short term objectives to be pursued by the Faculty (see also par. 1.1).

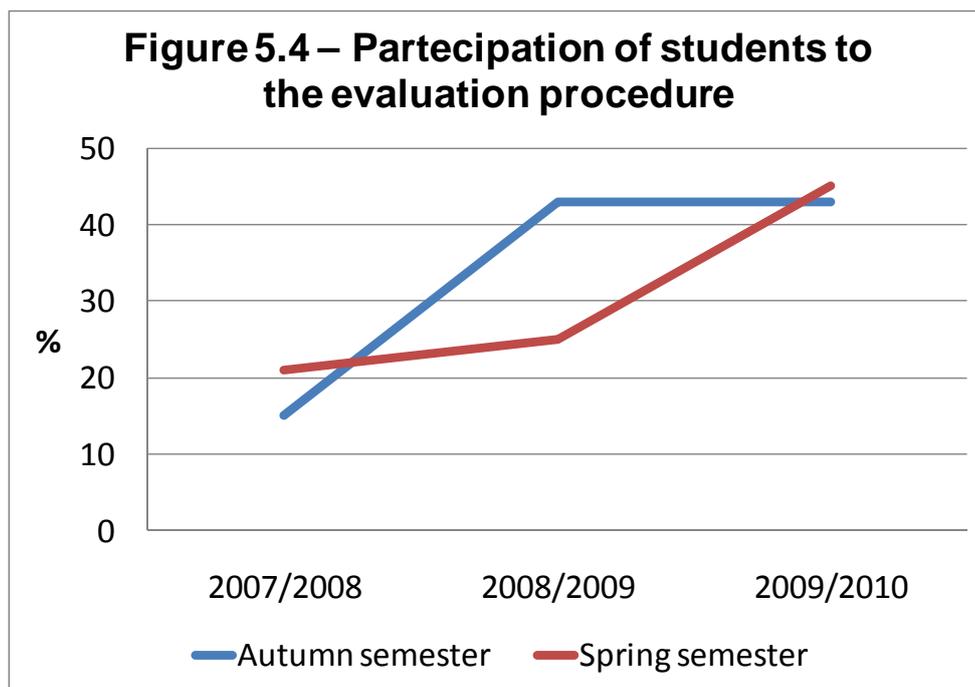
Indicate the use of external evaluators.

External evaluators are not used at the moment.

Describe the role of students in the evaluation of teaching and teachers.

Since satisfaction questionnaires filled up by the students are the main tools that the Faculty utilizes in the evaluation of teaching and teachers, students have clearly a major role in the process. Moreover, through their representatives sitting in the Teaching Affairs Committee, students may actively participate in the discussion of the results of evaluation surveys, and be first hand informed of the follow up given. Beyond the questionnaires, the voice of students is also brought to the attention of the Teaching Affairs Commission by the Faculty Teaching Manager, who meets them officially once per semester, in close proximity of the “evaluation window”.

Participation of students in the “main” questionnaire was high (about 50%) in the first years following the start of the procedure. At that time, paper questionnaires were used and “third” students (from other faculties) were in charge to distribute and collect them after compilation in the lecture halls. In 2007, on line procedure was adopted by UniTO as the unique way available to students to join the survey. The process was left unguided and a dramatic drop in the number of filled up questionnaires was registered, as some experienced teacher had warned about (at UniTO level) without success. Since 2008, a strategy aimed to improve compliance of the students with the on line procedure was developed at the Faculty by the new Dean’s Delegate for Self Evaluation of Teaching. As shown in Figure 5.4, participation of students to the satisfaction questionnaire is once again in the desired range.



Describe the follow-up given to the evaluation.

On receipt of the reports on students' satisfaction ("main" questionnaire), the Teaching Affairs Committee, in which students are largely represented, analyses and discuss the results and compare them with those of previous years. It is up to the Vice Dean for Teaching Affairs to present the analysis to the Council of the Degree Course for debate. Then, on behalf of the Council, the Vice Dean for Teaching Affairs, the President of the Degree Course and the Dean's Delegate for Self Evaluation of Teaching meet privately with all teachers who received low marks in question 15 (*"Am I overall satisfied with how the course was carried out?"*). Since 2004, the threshold for sufficiency has been set to a satisfaction index equal to 0 (see legenda of Figure 5.1). During audits, the teacher will have to justify the poor satisfaction index and (when applicable) all other satisfaction indexes below threshold. She/he will also detail the measures she/he engages her/himself to take in future to compensate for criticisms. Student representatives have been considered as components of this sub-committee, but it was their request to be relieved of this delicate task. As a result of enduring unsatisfactory results in the questionnaire (hopefully a rare event amongst teachers at the Faculty, as suggested by Figures 5.2 and 5.3), pressure is put on teachers of the same scientific area to support the colleague and assume (at least) a part of her/his teaching load. No stronger measures can be legally

taken, in the Country, when weakness in teaching is the “only” insolvency detected in a permanent member of the academic staff.

As anticipated, the other questionnaires filled up by the students and the teachers are preliminary analyzed by the Faculty Teaching Manager, then presented for discussion at the Teaching Affairs Committee or the Practical Training Committee. Finally, it will be a task of the Internal Quality Control Committee to receive the suggestions of both Committees and prepare a list of relevant short term objectives for debate and approval by the Faculty Board. As an example, based on feed back from questionnaires (and some other inputs), in 2010 the Faculty has engaged itself in pursuing the following short term objectives:

- improve coordination amongst teachers whose courses are linked by propaedeuticities;
- improve the offer of outside practicals on production animal species which are poorly considered at the moment (namely swine, rabbits and poultry);
- maintain the current number of contracts for practitioners involved in practical training in small groups;
- improve the use of differentiated forms of exam (e.g., more interim exams);
- promote the widespread use of Campusnet platform by the teachers, to make more teaching material and more Dissertation work arguments easily available to students;
- maintain current good compliance of students to submitted questionnaires;
- improve to 75% the compliance of teachers to the satisfaction questionnaire submitted;
- improve the process of students’ logbook validation.

5.1.5 STUDENT WELFARE

Describe any measures taken to protect students from zoonoses (e.g. rabies) and physical hazards.

The rules concerning health and safety in the workplace in Italy are laid out in the Decree “DL 81 of 09/04/2008”. For the purposes and provisions of this decree, students are treated as employees. The general measures to ensure health and safety (as per article 5

of the Decree) must be followed during the course of all activities including, in the case of the Faculty:

- information and training on the risks arising from work related to specific activities in the laboratories, dissection/necropsy rooms, slaughterhouse, Teaching and Experimental Farm, Faculty kennel, VTH and all the facilities where such activities are carried out;
- provision and use of personal protective equipment where necessary.

Until 2009, in order to inform and educate on issues related to safety at work, students were requested, upon enrollment, to participate at a seminar aimed to inform them about the chemical and biological risks associated with laboratory activities. The seminar was organized by UniTO and held in the Campus by the Head of Central Prevention and Protection Services of the Faculty. At the end of the seminar, a special stamp was marked on the students' logbook, which was necessary in order to be admitted to laboratory activities.

In 2010, an *ad hoc* working group has been set up, with the aim to review all risks related to practical activities in the Veterinary Medicine course and to prepare appropriate informative material to disseminate among students. The working group is composed by the Head of Central Prevention and Protection Services of the Faculty, members of the Practical Training Committee and other involved teachers. Two informative sessions have been planned for the incoming academic year (2010/2011) and information about them have been posted on the Faculty website:

- the first session, dedicated to first and second year students, is aimed to explain the risks and control procedures related to practicals in the laboratories, dissection rooms, the Teaching and Experimental Farm and other practical training locations (e.g. the International Equine Centre);
- the second session, dedicated to third, fourth and fifth year students, is aimed to highlight the risks and control procedures related to activities in the Faculty slaughterhouse and outside plants, the Faculty kennel, the VTH and wherever direct contact with animals may occur (e.g. in farm visited during rounds with the Mobile Clinic).

Attendance to sessions will be compulsory and a final test will be provided to verify if basic information about security in the workplace has been retained. Passing the test will be a necessary condition to attend practical activities. Relevant informative material has been

already made available to students on the Faculty website (http://campusnet.unito.it/cgi-bin/corsi.pl/Show?_id=8030;sort=DEFAULT;search=;hits=119).

Furthermore, at the beginning of their Dissertation work, all students have to fill a form listing the potential exposure to (biological, physical and chemical) hazards in relation to scheduled activities. These forms are then sent to the Occupational Health Services of UniTO that, based on individual assessment, determine whether to proceed to physical exams and/or clinical investigations, and their frequency.

UniTO provides every student with an accident insurance and an insurance policy for civil liability. They are valid for all in house and external activities carried out during courses, practicals, training periods and the Dissertation work.

For a brief description of health and safety measures in place in the premises for practical work and in the laboratories to which undergraduate students have access, please see par. 6.1.4.

Describe the facilities (not related to the teaching programme) which the establishment provides for students

As per art. 53 of its Statute, UniTO recognizes and encourages all the social activities that might contribute to make learning more fruitful and to improve the quality of university life, supporting students' initiatives regarding culture and sport activities. The main referential agency is the EDISU (Piedmont Regional Agency for the Right to Study, <http://www.edisu.piemonte.it>), which is responsible for organizing cultural and recreational events for university students: some initiatives are free, other have discounted prices. Among the noteworthy initiatives, it is worth mentioning the promotion of musical and artistic activities by the Piedmont Music Association of University Students. Sporting activities are organized by the University Sport Centre (CUS Torino). UniTO students may practice a large number of sport disciplines at discounted prices (<http://www.custorino.it>). Besides, there is a direct agreement between the Faculty and a swimming-pool adjacent to the Campus.

The Faculty enjoys a University On-Campus canteen with 120 seats. The canteen provides menu choices which vary on a weekly basis and feature local specialities. The University Residence "Villa Claretta", located only a few hundred meters from the Campus, represents a modern facility for the reception of students and foreign guests. The Canteen

and the University Residence are managed as part of the activities of EDISU, offering meals at discounted and favorable rates for economically weaker students. There is no Cafeteria in the Campus, however two bars are present in front of the main entrances. Vending machines for coffees, drinks and snacks are available in each building of the Campus.

For students involved in night duties at the VTH, a rest area equipped with 3 beds and a kitchen is available. A guest-house is also available at the Teaching and Experimental Farm, mainly to house interns and guest researchers engaged in activities at the Campus for short periods of time.

Within the Campus, namely in “Building A” (par. 6.1), there is a branch of the University Student Office, whose mission is to support students in the administrative procedures connected to their career, from enrolment to graduation.

During the course of their studies, students also interface themselves with the Teaching Affairs Secretary Office, whose mission is to support the organization of teaching activities and services.

Representatives of the student community are also available to discuss with their mates problems connected to university life and the Degree course, and they manage a small office located in the same building of the Students’ Office.

There are several study (and meeting) points. The ones with the greatest capacity are the Campus Meeting Center (“Centro Incontro Studenti”, 176 seats) and the Campus Library (100 seats). Table and/or seats are also available in the VTH, “Building A” and the “Yellow Building” (see par. 6.1). Subsidiary libraries and meeting rooms in the Departments are usually open for study to intern students involved in the Dissertation work. Other tables and benches placed in lush vegetation offer additional aggregation points, and are particularly appreciated in spring and summer.

Among the available social services, there is “La Città Universitaria della Conciliazione”: a high quality multifaceted childhood service which includes a nursery, a kindergarten and other services available when primary schools are closed. The project, involving primarily the city of Grugliasco, UniTO and other major institutional partners, aims to promote the integration of work and family responsibilities for those who work and study at the Campus. The service is located just a few hundred meters from the Campus.

Describe the guidance offered by the Faculty for students with problems (social problems, study problems) as well as for future career development or job selection

UniTO cooperates with the Piedmont Regional Agency for the Right to Study (EDISU), through which it offers a variety of services in order to guarantee equal right to study to all students. These services consist in assigning extraordinary benefits to some students with financial difficulties, namely offering:

- housing at 9 University Student Dorms in Turin and one in Grugliasco (Villa Claretta), all of which are accessible to disabled students and provided with all kind of facilities;
- five EDISU-agreed university restaurants in Turin and two in Grugliasco.

Financial support to students with economic difficulties is also available through grants or other forms. At the beginning of each academic year, students are requested to fill in an Income Assessment Form in order to apply for possible reductions of the university fees. Reductions of fees and contributions can be applied in favour of disabled students, working students, and candidates who are suitable for a study grant (<http://www.edisu.piemonte.it/cms/borsa-di-studio.html>).

Part-time jobs in the University's main educational facilities are available for all the students who already completed the first year and met specific merit and income requirements. Students may work a maximum of 150 hours per year. Applications are accepted from all student (from the second year onward) who meet the requirements. There are about 15-20 available positions each year for the Faculty students. Extra positions have been assigned to the Faculty whenever assistance to students with physical handicap was needed.

The Faculty ensures a tutoring service for students who may need support in learning, raising awareness among teachers to take charge of this activity. As stated in art. 13 of the law 341/90, "tutoring is aimed at assisting and guiding students during the degree course, acquainting students with the learning process, and helping them to remove obstacles encountered in taking some exams". For this purpose, each teacher is requested to tutor 2-3 students each year. Students apply for such support, if interested (but, to be honest, tutoring spontaneously offered by senior students, young graduates operating in the Departments and Faculty premises, the Faculty Teaching Manager and individual teachers is much more appealing for most students).

A different facet of tutoring at the Faculty is the availability of teachers to provide specific information/clarification on issues related to individual courses taught. All teachers are requested to define a weekly timetable to meet students, or leave their mobile phone number for appointments. This information is available on the Faculty web. In addition, rapid communication between students and teachers via e-mail is becoming increasingly popular.

Advice on career development and job selection is formally given to students by the Job Placement service, operating at the Faculty since 2006. The objective of this activity, supported by UniTO in collaboration with the professional world, is to i) help students in their careers choices; ii) favor preliminary contact of students with companies; iii) help companies, public bodies and international institutions to find and choose students and recent graduates who may meet their needs. There is a deputy (the Vice-Dean for Tutoring and Job-placement) responsible for organizing the service and managing the allocated staff (usually, a single temporary worker supported by 2 part-time students). Since 2007, the service also offers the opportunity to follow up graduates' career, helping the late students and the freshly graduates to write a curriculum vitae, and creating a database of the veterinary profession (121 graduates are currently in the mailing list). Every year the service organizes a half-day meeting for students with 5-7 "old" veterinarians, who present their perspective on the problems and future of the different professional branches, and 3-4 younger vets, who describe the problems related to the entry in the professional world. During the afternoon of the same day, students are taught how to prepare a curriculum vitae, how to create a career plan and how to present at a working colloquium. The service also organizes and manages post-graduation working stages, regulated by national and regional laws. Since 2008, 57 stages have been activated and, in 34 cases, the stage have been renowned or transformed in a position. More positions (21) have been filled thanks to contacts facilitated by the Job Placement service.

5.2 COMMENTS

Give general comments about the quality of the teaching programme under the above headings:

- The teaching programme

Much has been done, structurally, to ensure coordination of the teaching programme between the different institutions and people involved. Great benefit in this process has

derived from the enrolment (since 2004) of the Faculty Teaching Manager, a technical specialized figure enjoying a unique “third” status, midway from students and the teaching staff, which permits her (besides personal capacities) to be specially effective in the operative facets of the coordination role on behalf of the Vice-Dean for Teaching Affairs. Shift to a programme in which practical training in small groups has acquired a much higher rank than previously, would have hardly been possible without such a dedicated figure. Minor coordination problems in providing teaching may still occur on occasion, but they are now rapidly signalled by the students (usually through their representatives) to the Faculty Teaching Manager, and may therefore come in short time to the attention of the Vice-Dean for Teaching Affairs.

- The teaching environment

The teaching staff is aware that implementation of a national system to reward teaching excellence by means of accelerated promotions and/or prizes would be a key step towards improving the quality of the whole national University system. Regrettably, no actions in this respect can be done by the Faculty, or even by UniTO, but lobbying on the Ministry of Education and the Central Government through the available advisory bodies (e.g. the National Conference of Rectors and the National University Council). In a recent Ministerial decree regulating the competition system for new or better academic positions, very limited attention has (once again) been dedicated to proficiency in teaching, and the whole focus has remained on research performance as per long tradition. Adding to this chronic systemic weakness the heavy budget cuts that the University system is suffering, it is reasonable to assume that commitment to teaching will have to rely for long time yet on the motivation and sense of responsibility of individual teachers.

Though adequate premises and technical tools for modern teaching are available at the Campus (please, see Chapter 6), roughly no initiatives have been taken at the Faculty level (and generally at UniTO level) to improve the individual teaching skills and stimulate the embracement, by more teachers, of new approaches which are more consistent (than “traditional” lectures) with the philosophy of the Bologna Declaration. As a consequence, problem-based learning (one of the fundamentals of the new philosophy) is used much less that it would be reasonable to expect. Though this weakness is definitely not unusual in Veterinary Medicine courses across the Country,

remedies must be considered for the future. As opposite, interactive computer-assisted approaches are becoming increasingly popular amongst teachers (and students), with the perspective that the young staff will spontaneously and rapidly adopt them as a standard.

- The examination system

The organization of the examination system is quite good, starting from timely publication of the exam dates on the web and the attention to avoid overlapping of dates.

Undeniably, weaknesses exists (namely the high number of retakes allowed and the absence of a temporal limit for students to pass an examination, both favouring the extension of time to graduation) but their legal solution is far beyond the Faculty's possibilities, and they can be seen as a Countrywide university problem.

As per common habit in Italy, oral examinations are preferred by several teachers as the only form of assessment. Notwithstanding, mixed or alternative forms of examination are increasingly used at the Faculty, therefore students are also exposed to forms of assessment which are more popular in other European countries. Students seem comfortable with the current hybrid situation. Rather, their complaints to the Faculty Teaching Manager and the Teaching Affairs Committee deal with: i) (dis)organization problems, namely the waste of time when the final exam of (a few) integrated courses is structured piecemeal, and the involved teachers are poorly coordinated; ii) the still limited number of interim tests offered. Larger use of these tests is mainly solicited by the best students, who regularly attend lectures and may therefore take full advantage of this tool. On the other hand, widespread use of interim tests is opposed by a part of teachers, who notice a decrease in attendance to their lectures when an interim test is scheduled by a colleague.

- Evaluation of teaching and learning

The evaluation system of teaching, which is based mainly on students' satisfaction questionnaires, is probably run (close) to the best of possibilities which are given in the current regulations' context. Notwithstanding, further transparency (e.g., the full publication of evaluation results, including those dealing with the individual teachers/courses) and a stronger follow-up of the evaluation beyond the audits of

“weak” teachers, are constantly requested by the students.

Results of the evaluation of teaching by the Faculty students, analyzed annually by the Self Evaluation Evaluation Committee of UniTO, compare favourably with results of other scientific (and humanities) Faculties of our University (for details, please see http://www.unito.it/unitoWAR/ShowBinary/FSRepo/Area_Portale_Pubblico/Documenti/R/relazione_2008.pdf). This is not only a matter of satisfaction for the teaching staff but also a strong argument for the Dean when he has to “defend”, in front of the Rector and the University Senate, the higher economic investment per student that undergraduate training in Veterinary Medicine implies.

As reported, evaluation of learning relies on a range of objective quantitative parameters. Nevertheless, it is our opinion that even more parameters should be considered in future, to permit targeted (though not easy) evaluation of the Day-One Skills that EAEVE SOPs denominate as “General professional skills and attributes” (see Annex IV, pgg. 85-86).

- Student welfare

There is no major comment on this point.

Opening a Cafeteria in the Campus would certainly be welcomed by the students and staff. However, little physical space remains in the available buildings and current budget constraints are not compatible with construction of a dedicated new one.

Some low cost maintenance-friendly sport facilities (e.g. table tennis courts and a beach volley ground) could possibly be installed in the Campus, to the benefit of relax and the quality of human relationships amongst students and between students and staff.

Some students have recently suggested to create a space to leave their dogs for a few hours when they cannot take care of their pets due to attendance to lectures or practicals.

5.3 SUGGESTIONS

The Faculty should promote, to the best of its possibilities, the culture of evaluation and reward of teaching excellence, and should participate actively in any eventual project run at the national level to define parameters and strategies in this particular area. In the meanwhile, the Faculty management should include, amongst its priorities, attention to cultivate the proper atmosphere to maintain the sense of responsibility and the commitment to good quality in teaching by the staff.

Courses for teachers should be organized, in the Campus, to promote the use of problem-based learning approaches.

More interim examinations should be offered with the aim to facilitate the progression of motivated students. This process should be carefully monitored to check eventual disturb caused to courses taught in parallel. This is one of the short-term objectives already focused by the Internal Quality Control Committee in order to enhance the effectiveness of the formative process.

LIST OF AGREEMENTS BETWEEN THE FACULTY AND EXTERNAL BODIES FOR PRACTICAL TRAINING, ASSEMBLED FOR THEMATIC AREAS

ANIMAL FEED

- MANGIMI 4 TORRI – Via Mondovì 40, 12045 Fossano (CN) - Tel. 0162/60572
- CONSORZIO AGRARIO DELLE PROVINCE DEL NORD-OVEST - Via Bra 97, Cuneo Ronchi (CN) - Tel. 0171/410210

ACQUACULTURE

- CONSORZIO REGIONALE PESCA VALLE D'AOSTA (STABILIMENTO ITTICO DI MORGEX-LA SALLE) - Corso Lancieri di Aosta 15/d, Aosta

COMPANION ANIMALS

- ANUBI (OSPEDALE PER ANIMALI DA COMPAGNIA) - Str. Genova 299/A, Moncalieri (TO) – Tel. 011/6813047
- CASA DI CURA VETERINARIA “M. EMILIUS” - Loc. Plan Felinaz 9/1, Charvensod (AO) - Tel. 0165 – 239891
- CENTRO PER LA CONSULENZA NEUROLOGICA E DIAGNOSTICA PER IMMAGINI DELLA DOTT.SSA LOTTI – Via Nazionale 71, Cambiano (TO) – Tel. 011/9441821
- CENTRO VETERINARIO MONVISO - Via Pellice 39, San Secondo di Pinerolo (TO) - Tel. 0121 – 501982
- CENTRO VETERINARIO TORINESE - Lungo Dora Colletta 147, Torino - Tel. 011/2482116
- CLINICA ALBESE PER ANIMALI DA COMPAGNIA - Via Vivaro 25 D/E/F, 12051 Alba (CN) - tel. 0173/35122
- CLINICA CROCE BLU - Superstrada Torino–Pinerolo, Piossasco (TO) - Tel. 011/9065751
- CLINICA VETERINARIA DOTT. BORGARELLO – Strada genova 174 – Moncalieri (TO) – Tel. 011/6471100
- CLINICA VETERINARIA EUROPA - C.so Marconi 17, Torino - Tel. 011/6690207
- CLINICA VETERINARIA PASTRONE - Corso Vercelli 246, Torino – 126 – Tel. 011/200126
- CLINICA VETERINARIA PONENTE - Via Alfieri 5/rosso, Genova - Tel. 010/6457720
- CLINICA VETERINARIA VALSUSA - Via San Pietro 30, Avigliana (TO) - Tel. 011/9311895
- CLINIQUE VETERINAIRE - Avenue Aristide Briand 38520, Bourg d'Oisans, Francia - Tel. 0033/476801742
- CLINIQUE VETERINAIRE Drs. Ch. & N. Bazile, K. Jubilo-Witz - Boulevard Lachèze, 42600 Montbrison, Francia - Tel. 0477/961495
- OSPEDALE VETERINARIO SAN FRANCESCO – C.so Susa 242, Rivoli (TO) – Tel. 011/12537475
- OSPEDALE VETERINARIO SAN REMO - Via Barabino 15, 18038 Sanremo - Tel. 0184/666921
- PET CENTER s.r.l. OSPEDALE VETERINARIO CUNEESE - Via Cuneo 52/N 12011 Borgo San Dalmazzo (CN) - Tel. 0171/266229

EQUINES

- ALLEVAMENTO LE FONTANETTE - Via Fontanette 12, Vigone (TO) - Tel. 011/9801875
- ALLEVAMENTO IL GRIFONE - Via Cavour 15, Vigone (TO) - Tel. 011/9802219
- AZIENDA AGRICOLA LA FIORENTINA - Fraz. Fraschetta, San Benigno Canavese (TO) - Tel. 328/2387118
- CENTRO EQUINO ARCADIA - CENTRO NEONATOLOGIA EQUINA - Cascina Bruciacuore, Villafranca Piemonte (TO) - Tel. 011/9804004
- CENTRO INTERNAZIONALE DEL CAVALLO - LA VENARIA REALE - Viale G. Medici del Vascello - Druento (TO) - Tel. 011/9940000
- CENTRO MILITARE VETERINARIO DI GROSSETO - Via Castiglione 201, Grosseto - Tel. 0564/491513
- CENTRO VETERINARIO CASCINA GUFA - SP 201 Km.3, Merlino (LO) - Tel. 348/8717839
- CENTRO VETERINARIO LA VARLETTA - Strada La Varletta 62, Villanova d'Asti (AT) - Tel. 0141/946252
- CLINICA VETERINARIA PER EQUINI COSTABELLA - Via Piana 51, Suno (NO) - Tel. 0322/858024
- OSPEDALE MILITARE VETERINARIO MONTELIBRETTI - Via Montelibrettese, Montelibretti (ROMA) - Tel. 0774/630091
- UNIVERSITY OF PENNSYLVANIA, SCHOOL OF VETERINARY MEDICINE - 3800 Spruce street, Philadelphia PA 19104-6044 USA - Tel. 215/8988843
- KEROS NV - INSEMINATION AND EMBRYO TRANSFER CENTER - Westrozebekestraat 23A, 8980 Passendale, Belgium - Tel. 0032/473766157

EXOTIC ANIMALS

- AMBULATORIO VETERINARIO ASS. "GHIDO" - Via Don Giovine 26, Alessandria - Tel. 0131-260115
- AMBULATORIO VETERINARIO DOTT. MATTIA BIELLI - Via Buonarroti 20/A, Novara - Tel. 0321-424480
- CLINICA VETERINARIA VALCURONE - Via Kennedy 10, Missaglia (LC) - Tel. 039/9279338
- CRUMA: CENTRO RECUPERO UCCELLI MARINI E ACQUATICI della LIPU (Lega Italiana Protezione Uccelli) - Via delle Sorgenti 430, Livorno - Tel. 058/6400226
- LORO PARQUE FUNDACION - Calle Bencomo 5/n, Puerto del la Cruz, Tenerife, Spagna - Tel. +34 922/373841
- PARC ANIMALIER LE PAL - 03290 Dompierre sur Besbre, Francia - Tel. 0033-470420361
- STUDIO VETERINARIO ASSOCIATO BOCCHINI V., CROVETTO A. - Via San Martino 67r, Genova - Tel. 010/352446

FARM ANIMALS

- A.N.A.BO.RA.PI. (Ass. Nazionale Allevatori Bovini Razza Piemontese) - Strada Trinità 32/a, Carrù (CN) - Tel. 1073/750791
- APA TORINO (Associazione Provinciale Allevatori) - Via Pianezza 115, Torino - Tel. 011/4530059
- APA ASTI (Associazione Provinciale Allevatori) - Via Guttuari 41, Asti - Tel. 0141/530690

- APA BIELLA E VERCELLI (Associazione Provinciale Allevatori) - Via Viotti 24, Vercelli - Tel. 0161/257560
- APA CUNEO (Associazione Provinciale Allevatori) - Via Torre Roa 13, Madonna dell'Olmo (CN) - Tel. 0171/410800
- AZIENDA GRANDA ZOOTECNICA - Via Massaia 1, Savigliano (CN) - Tel. 0172/712734
- ISTITUTO SPERIMENTALE PER LA ZOOTECNIA - Via Salaria 31, Monterotondo (ROMA) - Tel. 06/900901
- AZIENDA BASANO DI BASANO – Via dei Boschetti 12, Airasca (TO)
- AZIENDA FLLI. MARTINENGO - Via Reg. San Ponzio, Cascina Ronza 8 None (TO)
- AZIENDA LA BUSSOLA - Via Santa Maria, Savigliano Frazione Apparizione (CN)
- C.F.T. VETERINARI ASSOCIATI DI CHIAVASSA ENRICO, FISSORE MARIO, TEOBALDI MICHELE - Via Cambiani 14, Savigliano (CN) - Tel. 335-6060220
- CLINIQUE VETERINAIRE - Avenue Aristide Briand 38520, Bourg d'Oisans, Francia - Tel. 0033/476801742
- CLINIQUE VETERINAIRE SAINT- JEAN - Boulevard Carnet 13 bis, Montbrison, Francia - tel. 0477961500
- COOPERATIVA SOCIALE DI PIOBESI – Via Castelletto 40, Piobesi (TO)
- LONGEVILLE SCA - Località Le Montet 03240 Francia - Tel. 0033/470473235
- STUDIO VETERINARIO ASSOCIATO TEDESCHI, TONI, REVELLI - Via Gonzaga 10/a – Bagnolo in Piano (RE) – Tel. 0522/953610
- STUDIO VETERINARIO ASSOCIATO DOTT. TESIO GIOVANNI, DOTT. APPENDINO BRUNERI - Via Cavalcavia 21, Carmagnola (TO) - Tel. 011/9723243

FOOD TECHNOLOGY AND FOOD SAFETY

- ABIT PIEMONTE CONSORZIO COOPERATIVO - C.so Allamano 26, Grugliasco (TO) - Tel. 011/4083011
- BIRAGHI s.p.a. - Via Cuneo 1, Cavallermaggiore (CN) – Tel. 0172/380298
- QUALITALIA s.a.s. di Andrea Verme - Via Aubert 18, Pino Torinese (TO) - Tel. 011/8119967

RESEARCH CENTRES

- ASSOCIAZIONE PROFESSIONALE NEUROVET - Via Maestri del Lavoro 25, Legnano (MI) - Tel. 0331-578951
- CENTRO DI NEURO-BIO-ONCOLOGIA FONDAZIONE POLICLINICO DI MONZA-UNIVERSITA' DI TORINO - Via Pietro Micca 29, Vercelli – 0161/3691
- FONDAZIONE IRCCS ISTITUTO NEUROLOGICO “C. BESTA” DI MILANO, SETTORE NEUROPOATOLOGIA-NEUROONCOLOGIA - Via Caloria 11, Milano - Tel. 02/23942260
- FONDAZIONE ISTITUTO ITALIANO DI TECNOLOGIA - Via Morego 30, Genova - Tel. 010-71781
- INSTITUT AGRICOLE REGIONAL - Région La Rochère 1/a, Aosta - Tel.0165/215811
- RBM s.p.a. - Via Ribes 1, Colletterto Giocosa (TO) - Tel. 0125/222514

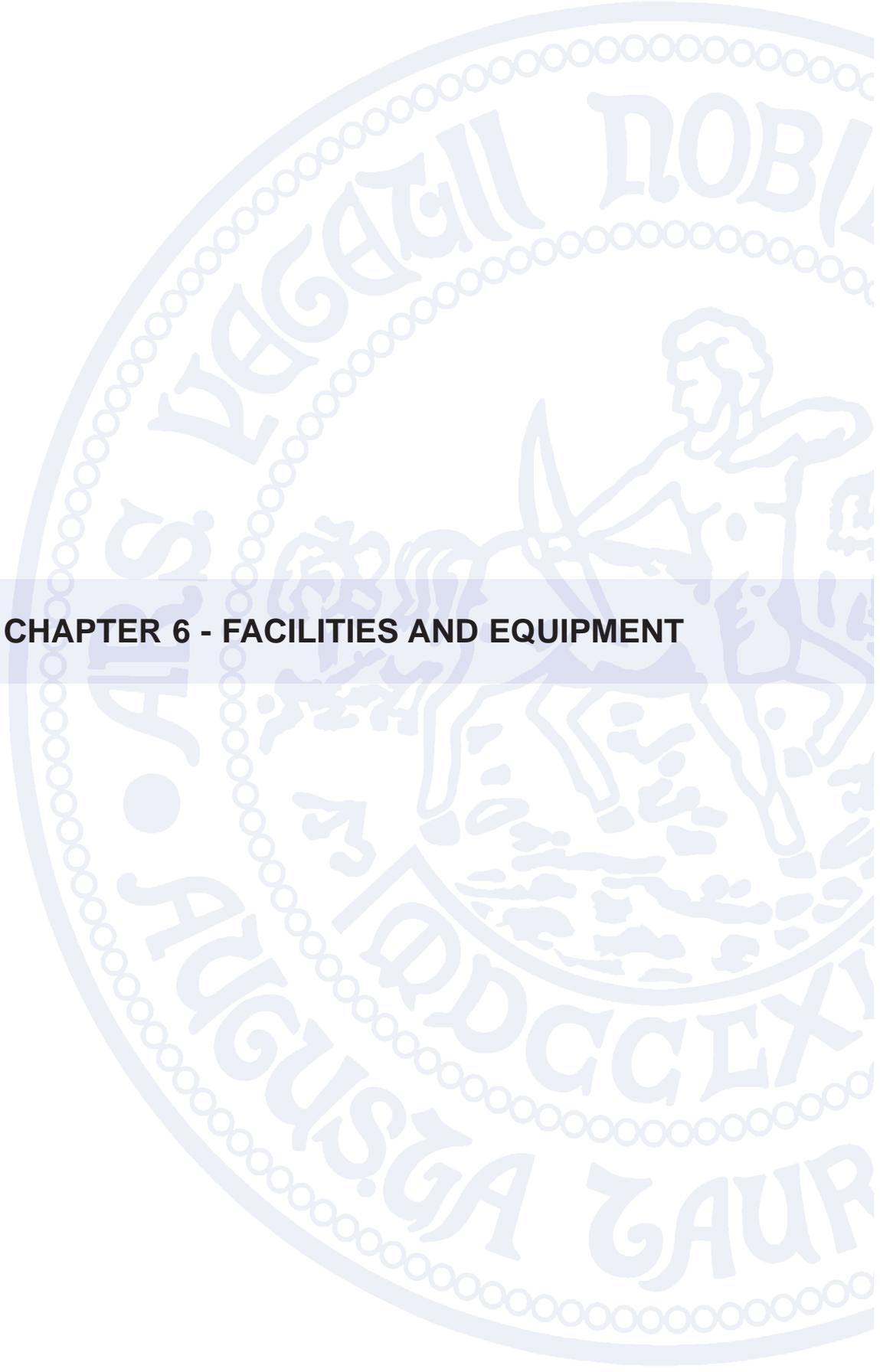
VETERINARY PUBLIC HEALTH

(Veterinary Public Health; Food Hygiene and Inspection; Animal Health, Hygiene and Control of Animal Breeding, Animal Production and By Products)

- ALL ASLs IN PIEDMONT REGION
- ASL 1 IMPERIESE - Via Aurelia 97, Bussana di Sanremo (IM) - Tel. 0184/5361
- ASL 3 GENOVESE - Via Bertani 4, Genova – Tel. 010/3446635/652
- AZIENDA USL VALLE D'AOSTA - V. Guido Rey 1, Aosta – Tel. 0165/238770
- ASL LECCO - C.so Carlo Alberto 120, Lecco - Tel. 0341/482763
- ASL REGGIO CALABRIA - Via Sant'Anna 18/d, Reggio Calabria – Tel. 0965-22931
- ASL MESSINA (Dipartimento S.P.V., distretto n°1 Messina Nord) - Via S.Cecilia 34, Messina – Tel. 090/2922890
- ISTITUTO ZOOPROFILATTICO SPERIMENTALE DI PIEMONTE, LIGURIA E VALLE D'AOSTA - Via Bologna 148, Torino – Tel. 01126861
- ISTITUTO ZOOPROFILATTICO SPERIMENTALE DELLA SICILIA (AREA DI BARCELLONA P.G.) - Sant'Andrea 96, Barcellona P.G. (ME) – 090/9701051

ZOOLOGICAL CENTRES AND NATURAL PARKS

- AMMINISTRAZIONE PROVINCIALE DI BELLUNO (Settore tutela gestione della fauna e delle risorse idriche) - Via S. Andrea 5, Belluno - Tel. 0437/959313
- COSTA EDUTAINMENT SPA (ACQUARIO DI GENOVA) - Via Ponte Spinola, Genova - Tel.010/2345217.
- ENTE DI GESTIONE DEL PARCO REGIONALE LA MANDRIA E DEI PARCHI E DELLE RISERVE DELLE VALLI DI LANZO - Viale Carlo Emanuele II, 256 - 10078 Venaria Reale Tel 011/4993311
- FORESTA DI TARVISIO - Via Romana 2, Tarvisio (UD) - Tel. 0428/2786
- MARINE MAMMAL CENTER - 1065 Fort Cronkhite, Sausalito, CA 94965, USA - Tel. USA 415/2897344
- PARCO NATURALE DEI LAGHI DI AVIGLIANA - Via Monte Pirchiarino 54, Avigliana (TO) - Tel 011/9313000
- PARCO NAZIONALE GRAN PARADISO - Via della Rocca 47, Torino - Tel. 011/8606211
- PARCO NATURA VIVA - Località Figara 40, Bussolengo (VR) - Tel. 045/7170113
- POMBIA PARK, S.S. 32, Km 23,4 Pombia (NO) - Tel. 0321/956431
- ZOOM S.P.A. (ex-LAGHI BAITE LAND, Parco Baitelandia) - Strada Piscina 36, 10143 Cumiana (TO) - Tel. 011/9070878



149 **CHAPTER 6 - FACILITIES AND EQUIPMENT**



The Faculty Slaughterhouse



CHAPTER 6 – FACILITIES AND EQUIPMENT

6.1 FACTUAL INFORMATION

6.1.1 PREMISES IN GENERAL

Please give a general description of the site(s) and buildings occupied by the Faculty and include a map.

The Faculty is located in the Veterinary and Agricultural Campus in Grugliasco, 12 km away from the centre of Torino. The Campus is connected to Torino by bus (bus stop at 100 m from the Campus main entrance), by metro (a station at 15 min walking) and by train (500 m). The Faculty area comprises a 42.258 m² estate and is composed of 7 buildings plus the Teaching and Experimental Farm and the Faculty kennel (see map and aerial view, end of this chapter).

BUILDING A. This is a two-storeyed building shared with the Faculty of Agriculture. The areas reserved to the Faculty include:

Ground floor

- the University Students' Office ("Segreteria studenti"), shared with the Faculty of Agriculture;
- the Auditorium ("Aula Magna"). It has 300 seats, but the number can be increased to 600 since removable wall separates it from the auditorium of the Faculty of Agriculture. It is equipped with computerized projection systems, a full size screen, a professional sound system. It is used for lectures to students of the first two years, and for scientific conventions and conferences;
- a lecture hall ("Aula A") with 210 seats;
- a room for support staff operating in Building A;
- an automatic bank office;
- a spacious hall;
- restrooms.

First floor

- headquarters (including the Dean's office, the Teaching Affairs Secretary office, the Administrative offices);
- a meeting room (shared with the Faculty of Agriculture);

- a lecture hall (“Aula D”) with 210 seats;
- the Linguistic laboratory (“Centro Linguistico Interfacoltà di Agraria e Veterinaria – C.L.I.A.V”);
- a room for students’ representatives;
- restrooms.

BUILDING B (“GREEN BUILDING”). This two-storeyed building hosts the Veterinary Teaching Hospital (VTH, “Ospedale Didattico Veterinario”). It is bordered by a parking area for clients and staff. It includes:

- a reception;
- a waiting room;
- a small animal section;
- a large animal section;
- an exotic/wild animal section;
- a diagnostic imaging section;
- a pathology section;
- 3 lecture halls (Aula Monti, Aula Micheletto, Aula Ospedale 1);
- 3 seminar rooms (Aule Seminario 1-2-3);
- other rooms (a few offices, a laundry, warehouses, restrooms, a rest area equipped with a kitchen, a dining room, a sleeping-room for the staff, a sleeping-room for students on duty at the VTH).

The small animal section (ground and first floor) is composed of:

- five visiting rooms (two for surgical and oncological cases, two for internal medicine cases and one for obstetric cases). Two of the visiting rooms are equipped with cameras and monitors connected to lecture rooms;
- four specialist rooms (chemotherapy, ophthalmology/neurology, ultrasound, and selected endoscopy);
- three rooms for the major surgery procedures. The first surgery room is for obstetric surgery, the second for soft tissues and ophthalmic surgery, and the third for arthroscopy, orthopaedics and neurosurgery. The surgery can be seen from the top of the rooms (through glasses and on screen television). Each surgery room is also connected to lecture rooms by a camera system;
- three rooms for patients’ preparation (trichotomy, premedication, induction of general anaesthesia);

- a unit for isolation of infected and suspect animals, equipped with dedicated HEPA filter ventilation system, 12 standard cages for dogs and cats and two isolation/Parvo cages;
- a unit for hospitalization, intensive care and emergency cases including:
 - two rooms for hospitalized dogs and cats (6 boxes and 16 cages);
 - a room for emergency cases, equipped with multi-parametric vital sign monitor, defibrillator, aspiration device, portable radiologic unit, portable ultrasound scanner;
 - an emergency laboratory (for CBC, serum chemistries, coagulation tests, blood gases, blood electrolytes, and blood lactate)
 - two rooms for Intensive Care, equipped with multi-parametric vital sign monitors (NIBP, SpO₂, T° C, CO₂, IBP, HR), a pulseoxymeter/capnograph, an aspirator, temperature management units (Bair Hugger® Therapy), infusion pumps, syringe pumps, 18 cages (two of them oxygen cages) and a big sink for washing patients;

The large animal section (ground floor) is composed of:

- two surgical rooms. One theatre is dedicated to standing procedures, the second one to procedures in general anaesthesia. The general anaesthesia theatre is equipped with a self adjustable surgical bed. The surgery can be seen from the top of the rooms (through glasses and on television), and each surgery room is connected to lecture rooms by a camera system;
- two recovery boxes. The first one, located between the surgical theatres, is equipped to perform general anaesthesia and recovery. The second box is in front of the radiology room. An electrical hoist is available to move anesthetized animals. The recovery boxes are organized with a soft padded material on the floor to avoid traumatic injuries to patients;
- two visiting rooms, one of which is equipped of a long passage to perform clinical investigation of lame horses;
- a unit in front of the surgical rooms, with 4 intensive care boxes in plastic material. Two boxes are equipped with a fluid line and warming lamps. All boxes have a soft floor, and are easy to wash and clean.

The exotic/wild animal section (ground floor) is composed of:

- a consultation room;

- a hospitalization room, equipped with varied sized cages and terraria;
- a small external exercise area.

The diagnostic imaging section (ground floor) is composed of:

- three rooms for radiology in small animals;
- a room for radiology in large animals;
- a room for computed tomography (mainly in dogs and cats);
- a room for angiography in small animals;
- a room for endoscopy in small animals (already cited);
- two rooms for ultrasonography in small animals (already cited)

Endoscopic and ultrasonographic procedures in large animals are performed in the visiting or surgical rooms, according to needs.

The pathology section is composed of :

- a 255 m² wide necropsy room, equipped with 11 tables for dissection of small and large animals. The room is connected to lecture rooms by a fully motorized camera system;
- a photo laboratory;
- two refrigerated rooms for carcasses/viscera storage;
- dressing rooms;
- a down/up loading area for large animal carcasses;
- a tissue trimming laboratory including standard and under-vacuum specimen processing equipment;
- a ventilated room for tissue specimens archive.

Three lecture halls are available, one accessible from the first floor (Aula Micheletto), one from the ground floor (Aula Ospedale 1) and one from both (Aula Monti). A working chute for large animals is present in the last one. Seats are 98, 100 and 70, respectively.

In the green building there is also an area for students with 4 tables and 16 seats and some coffee, drinks and snacks machines.

BUILDING C (“YELLOW BUILDING”). This four-storeyed building hosts the Department of Animal Pathology. It is organized as follows:

Ground floor

- three seminar rooms (“aule AP 1-2-3”);
- the office of S.V.C.P.A., a centralized veterinary service aiming to provide expertise in well being and proper management of the animals used for experimental purposes in all premises of UniTO (http://veterinaria.campusnet.unito.it/cgi-in/home.pl/View?doc=centri_e_servizi/svcpa/svcpa.html);
- laboratories of the Pathological Anatomy sections, including the electron microscopy unit;
- laboratories of the Pharmacology and Toxicology section, including the Radioisotopes and Immunoassay laboratory (RIA);
- laboratories of the Parasitology and Parasitic Diseases section, including a small dissection room and “dirty” laboratories for manipulation of organs, tissues and faeces;

First floor

- offices and laboratories of the Internal Medicine section;
- the departmental meeting room;
- offices of the Department’s Administrative Secretary;
- an area for students, with 4 tables and 16 seats;

Second floor

- offices and laboratories of the Surgery and Obstetrics sections;
- offices and laboratories of the Pathology section;

Third floor

- offices and laboratories of the Pharmacology and Toxicology section;
- offices and laboratories of the Parasitology and Parasitic Diseases section (the Mycology laboratory included);

BUILDING D (“BLUE BUILDING”). This four-storeyed building hosts the Department of Animal Production, Epidemiology and Ecology. It is organized as follows:

Ground floor

- offices and laboratories of the Genetics section;
- offices of the Animal Husbandry section;
- office of the Faculty Teaching Manager;

- a small meeting room.

First floor

- the departmental meeting room;
- offices of the Department's Administrative Secretary;
- offices and laboratories of ISPA ("Institute of Food Production Sciences"), a research unit of ISPA-CNR (a major governmental research institution in the Country);
- laboratories of the Animal Husbandry section;

Second floor

- offices and laboratories of the Food Hygiene and Technology section;
- offices and laboratories of the Animal Nutrition section;

Third floor

- offices and laboratories of the Infectious Diseases section.

BUILDING E ("RED BUILDING"). This four-storeyed building hosts the Department of Morphophysiology. It is organized as follows:

Ground floor

- offices and laboratories of the Animal Physiology section;
- office and laboratories of the Botany section.

First floor

- the departmental meeting room;
- offices of the Department's Administrative Secretary;
- a seminar room;
- laboratories of the Animal Physiology section;

Second floor

- offices and laboratories of the Anatomy section;

Third floor

- offices and laboratories of the Anatomy section;
- offices and laboratories of the Biochemistry section.

BUILDING F (“LILAC BUILDING”). This two-storeyed building hosts the Inter-departmental Teaching Centre (“Centro Didattico Interdipartimentale”). It includes:

Ground floor

- a lecture room (“Aula Godina”, 100 seats), equipped for videoconferences;
- three seminar rooms (CD 1-2-3);
- a dissection room for Anatomy, with a contiguous refrigeration room;
- a slaughterhouse (see Paragraph 6.6 for details);
- a biological laboratory equipped with 18 microscopes, an inverted microscope, 4 biological hoods, 4 electrophoresis power units, centrifuges, a CO₂ incubator (“Laboratorio Didattico 1”);
- locker rooms for students;
- restrooms;

First floor

- an osteology room (“Sala osteologia”);
- a larger computer room, with 29 PCs and 55 seats (“Laboratorio Informatico 1”);
- a smaller computer room with 22 PCs and 44 seats (“Laboratorio Informatico 2”);
- a museum;
- a room with 45 individual microscopes (“Sala Microscopi”);
- a room with 5 multiple microscopes (“Sala Microscopi Multipli”), permitting simultaneous work by 25 students;
- a clinical chemical laboratory (“Laboratorio Didattico 2”);
- a chemical/biochemical laboratory (“Laboratorio Didattico 3”);
- restrooms.

BUILDING G (“CENTRO INCONTRO STUDENTI”). This two-storeyed building is shared with the Faculty of Agriculture. Besides lecture rooms reserved to the Faculty of Agriculture, it includes:

- the largest area for students in the Campus, with 44 tables and 176 seats, and 4 photocopy machines;
- a lecture room (“Aula 11”, 60 seats) reserved to the Faculty;

- the 120 seat Campus canteen with its own kitchen. Besides accomplishing its primary mission, the premise is of teaching interest for practicals of Food Hygiene by all students (see also par. 6.1.8).

TEACHING AND EXPERIMENTAL FARM (“CENTRO INTERDIPARTIMENTALE SERVIZIO RICOVERI ANIMALI” – C.I.S.R.A.).

This plant operates for the needs of the Faculty of Veterinary Medicine and the Faculty of Agriculture. It is structured as follows:

- a single floor building, with the keeper house, a dressing-room and a 8 beds capacity guest house (“Foresteria”);
- a feed manufacturing facility (“Mangimificio”);
- a stable, with boxes for horses maintained for teaching purposes and non-infective hospitalized horses;
- a cow-house;
- a sheepfold;
- a piggery;
- a surgery room, used for experimental surgery on pigs and small ruminants, in cooperation with private companies and other UniTO Departments;
- a previously multi-purpose building, now restructured as an isolation facility for farm animals and horses (“Reparto contumaciale grossi animali”);
- a laboratory animal facility (“Stabulario”), is available for experimental research. All animals are housed in respect of current Italian laws (DL 116/92) and regulations on animal experimentation and welfare. Remarkably, mice and rats are housed in conditions of enriched environment with bigger housing cages, running wheels and few toys to stimulate animal curiosity and exploration and to improve welfare;
- a 4 hectares grass-land;
- a large hayloft and garage for farm tractors and machines;
- a fowl-house;
- a small – 0.5 hectares approximately - fenced pasture for sheep, with two open shelters;
- a second single floor building with the Director’s office, Administration office, other offices and a dress-room.

For details on premises for equines and farm animals, please see paragraph 6.1.3.

FACULTY KENNEL. It is operated in agreement with the Municipality of Grugliasco and the Piedmont Veterinary Public Health Services. Two services are provided, for temporary monitoring of stray dogs/cats captured in the Municipality of Grugliasco (Sanitary Kennel/"Canile Sanitario") and for hospitalization and therapy of dogs/cats conveyed by other Sanitary Kennels located in the Province of Torino (Center for Therapeutic Assistance/"Centro Assistenza Terapeutica or C.A.T.").

It comprises:

- a single-storeyed building, with two visiting rooms, a room for minor surgery, a pet grooming room, a warehouse, offices for the staff and on duty Veterinary Officers, restrooms;
- a second single-storeyed building, with separate boxes for the two services provided (7 and 8 for the Sanitary Kennel and the C.A.T., respectively).
- four exercise areas

6.1.2 PREMISES USED FOR CLINICS AND HOSPITALISATION

The information to be entered in Table 6.1 is the number of animals that can be accommodated, not the number of animals used. Certain premises may be used to accommodate different species of animal. If so, the same premises should be entered only once.

Table 6.1: **Places available for hospitalisation and animals to be accommodated**

Regular hospitalization	Species	N. places
	Horses	11 (individual boxes)
	Dogs	24 ² (boxes and individual cages)
	Cats	16 ³ (individual cages)
	other ¹	20 ⁴
Isolation facilities	farm animals	9 ⁵ (boxes and individual cages)
	Horses	3 (individual boxes)
	small animals	14 ⁶ (individual cages)
<i>Legenda:</i> ¹ Exotic/Rescued wildlife		

² Including two O₂ cages that may accommodate small dogs or cats. Seven additional boxes are available for hospitalization in the Faculty kennel (C.A.T.service).

³ O₂ cages (see above) not entered. 12 additional individual cages are available for hospitalization in the Faculty kennel (C.A.T.service).

⁴ 13 individual cages + one bird cage + 6 terraria

⁵ Overall, 6 boxes. Three may accommodate calves, small ruminants or pigs. Four individual cages for calves have been located in one box

⁶ including two Parvovirus cages

Until late 2009, the building now restructured as an isolation facility for farm animals and horses was used, *pro parte*, for hospitalization of farm animals. Three large boxes were available for accommodation of different species, according to needs.

6.1.3 PREMISES FOR ANIMALS

Give a description of the facilities for rearing and maintaining normal animals for teaching purposes

Normal animals maintained for teaching purposes are housed in:

- the Teaching and Experimental Farm (into five premises);
- the Faculty kennel.

STABLE

A 309 m² premise, including an external exercise area, 7 individual boxes without paddock (assigned to non infective hospitalized patients) and 7 individual boxes with paddock.

COW-HOUSE

A 328 m² premise, including:

- 9 individual boxes for steers, equipped with head-lock and flight safety device for the operator (“passo uomo”);
- 6 multiple boxes with paddocks for cows, heifers and calves, equipped with self-locking barriers;
- a working chute for safe handling and sampling, with scale;
- two small paddocks.

SHEEP-FOLD

A 153 m² premise, including 4 multiple boxes and a paddock;

PIGGERY

A 299 m² premise, including:

- delivery room (8 places)

- weaning room (3 multiple box)
- covering room (3 single box)
- fattening room (9 multiple box)
- two paddocks in concrete;
- two paddocks in dirt, each one hosting a pig shelter;
- a manure pit.

FOWL-HOUSE

A 153 m² premise, including 3 boxes with paddock for egg-laying chickens and 3 boxes with paddock for fattening poultry.

In the building now restructured as an isolation facility for large animals, there were also an incubatory room, equipped with a professional egg incubator and a hatching equipment. In the same building, there was a rabbit-house where approximately 200 rabbits per year have been raised to commercial weight between 2007 and 2009, with five productive cycles per year.

For details on the number of animals raised and maintained at the Teaching and Experimental Farm during the past years, please see par. 7.1.3.

FACULTY KENNEL

No companion animal is permanently housed in any Faculty premises for teaching purposes. Notwithstanding, thanks to special agreements with the Municipality of Grugliasco and the Piedmont Veterinary Public Health Services, abandoned or stray “normal” dogs from the surrounding areas are hosted in the Faculty kennel for a period of time (usually 10 days) before restitution to the owner or transfer to external kennels, as per national legislation. They represent an interesting opportunity for students to be trained in proper handling and management of dogs, and be exposed to basic veterinary interventions (blood sampling, vaccination, routine anti-parasitic treatments, micro-chipping, etc.) under the supervision of the responsible staff and the competent Official Veterinarians.

The so called Sanitary Kennel, where these dogs are hosted, includes 7 spacious boxes (with a capacity of 2-4 dogs each). Two of these boxes are designed to permit safe management of aggressive dogs. Exercise areas and a grooming room are also present.

For details on the number of “normal” dogs and cats housed in Faculty kennel during the past years, please see par. 7.1.3.

6.1.4 PREMISES USED FOR THEORETICAL, PRACTICAL AND SUPERVISED TEACHING

The same room should not be entered under two or more headings, even if it is used, for example, for both practical and supervised work.

Table 6.2: Premises for clinical work and student training

small animals	no. consulting rooms	7
	no. surgical suites	3
equine and food animals	no. examination areas	2
	no. surgical suites	2
other ¹⁾	no. consulting rooms	1
	no. surgical suites	0*

¹⁾ Exotic/Rescued wildlife; * surgical suites for small animals are used when necessary.

Table 6.3: Premises for lecturing

Number of places per lecture hall							
Hall	<i>no. 1</i>	<i>no. 2</i>	<i>no. 3</i>	<i>no. 4</i>	<i>no. 5</i>	<i>no. 6</i>	<i>no. 7</i>
Places	300	210	210	100	100	99	70
Hall	<i>no. 8</i>	<i>no. 9</i>	<i>no. 10</i>	<i>no. 11</i>	<i>no. 12</i>	<i>no. 13</i>	<i>no. 14</i>
Places	60	30	22	22	21	20	20
Hall	<i>no. 15</i>						
Places	20						
Total number of places in lecture halls: 1304							

Table 6.3 bis: Premises for lecturing (details)

N°	Places	Building	Hall name
1	300	A	Aula Magna
2	210	A	A
3	210	A	D
4	100	Lilac	Godina
5	100	Green	Ospedale 1
6	99	Green	Micheletto
7	70	Green	Monti
8	60	G	Aula 11
9	30	Yellow	AP3
10	22	Lilac	CD 3
11	22	Lilac	CD 2
12	21	Yellow	AP 2

13	20	Yellow	AP 1
14	20	Lilac	CD 1
15	20	Red	CIP

Table 6.4: **Premises for group work** (Number of rooms that can be used for supervised group work)

Room	no. 1	no. 2	no. 3	no. 4	no. 5	no. 6	
Places	80	45	40	34	30	30	
Room	no. 7	no. 8	no. 9	no.10	no.11	no.12	
Places	25	20	20	20	10	8	
Total number of places in rooms for group work: 362							

Table 6.4 bis: **Premises for group work** (details)

N.	Name	Building	Places
1	“Sala settoria anatomia patologica”	Green	80
2	“Sala microscopi”	Lilac	45
3	“Sala settoria anatomia”	Lilac	40
4	“Laboratorio linguistico”	A	34
5	Teaching and Experimental Farm – all premises for animals (N=6)	*	30
6	Teaching and Experimental Farm - “Mangimificio”	*	30
7	“Sala microscopi multipli”	Lilac	25
8	“Sala osteologia”	Lilac	20
9	Slaughterhouse	Lilac	20
10	VTH	Green	20
11	Kennel	*	10
12	Mobile Clinic	*	8
*not applicable			

Table 6.5: **Premises for practical work** (Number of laboratories for practical work by students)

Laboratory	no. 1	no. 2	no. 3	no. 4	no. 5	no. 6
Places	55	43	40	40	22	12
Total number of places in laboratories: 212						

Table 6.5 bis: **Premises for practical work** (details)

N.	Name	Building	Places
1	“Laboratorio informatico 1”	Lilac	55
2	“Laboratorio didattico 2”	Lilac	43
3	“Laboratorio didattico 1”	Lilac	40
4	“Laboratorio informatico 2”	Lilac	40
5	“Laboratorio didattico 3”	Lilac	22
6	Laboratory of clinical pathology	Yellow	12

In addition, several departmental (research) laboratories are available. They are intensively used by students preparing their Dissertation work and, on occasion, for practical training of students in small groups.

Give a brief description of health and safety measures in place in the premises for practical work and in the laboratories to which undergraduate students have access.

In all premises, the main corridors are equipped with automatic fire extinguishers and anti-fire doors. Escape routes are well indicated by dedicated signs. Evacuation maps are present in strategic points of the establishment. Smoking is strictly forbidden, but in the open.

There are emergency showers outside the teaching laboratories. Eyewash and showers emergency units are available in the departmental laboratories. All tables in the necropsy room and 2 out of 8 in the anatomical dissection room have an aspiration system. All laboratories are provided with biological and/or chemical hoods to safely manipulate hazardous biological samples and chemicals.

Adequate equipment is available at the VTH and/or the Teaching and Experimental Farm (working chutes, head-locks and flight devices) permitting safe handling of large animals. Safety structures are present in the slaughterhouse (see par. 6.6).

Use of working clothes is mandatory in the laboratories, dissection rooms, slaughterhouse, premises for animals, the VTH, external farms and plants, etc. Disposable gloves, masks, plastic overcoats and boot covers are provided to students, when they happen to forget them. Boots must be cleaned before leaving the necropsy room and the Teaching and Experimental Farm.

All students are trained in basic and specific safety procedures before practical work is started. Injured students, if necessary, can be evacuated to the nearest hospital (there are two hospitals in a 5 km radius from the Faculty).

6.1.5 DIAGNOSTIC LABORATORIES AND CLINICAL SUPPORT SERVICES

Diagnostic laboratories - Briefly describe the facilities available for clinical diagnostic work.

Four specialized laboratories provide clinical diagnostic work for the Faculty (VTH, Teaching and Experimental Farm, Kennel and external premises/farms visited by the staff) and the profession. They are the laboratories of:

- Clinical Pathology;
- Pathological Anatomy;
- Microbiology;
- Parasitology.

LABORATORY OF CLINICAL PATHOLOGY

Haematological and biochemical analyses, coagulation tests (including tromboelastometry), urinalysis, cytologic analyses and flow cytometry are provided.

Major equipment includes:

- an ADVIA®120 Hematology System (Siemens Diagnostics)
- an automated cell counter HEMAT8® (SEAC)
- an automated biochemistry analyzer ILab300® (Instrumentation Laboratory)
- a semi-automated electrophoresis system Hidrasys® (Sebia)
- an electrophoresis system LD Buffer Paragon® (Beckman);
- a flow cytometer Coulter Epics XL-MCL® (Beckman)
- a haemostasis analyzer STart4® (Diagnostica STAGO);
- a densitometer Junior® (Apprise Technologies).

As anticipated, an additional easy to use equipment for fast haematological, biochemical, blood gases, blood electrolytes, ionized calcium and blood lactate tests is available in the Hospitalization-Intensive Care-Emergency Unit.

LABORATORY OF PATHOLOGICAL ANATOMY

Facilities for histopathologic examination of surgical (biopsy and excisional) and necropsy tissues are available and accessible for VTH and outside cases. Traditional histology,

special stains, immunohistochemistry stains and examination of surgical margins are performed. A necropsy service is also available (see also par. 6.1.1).

LABORATORY OF MICROBIOLOGY

The laboratory supports the VTH and the general public in the diagnosis of infections using microscopic, biochemical and biomolecular techniques (PCR, sequencing, restriction maps) to identify microorganisms in the submitted clinical specimens. These include blood, stool, urine and surgical material. Both aerobic and anaerobic microorganisms are identified. Moreover, evaluation of the antibiotic resistance through the agar diffusion method is provided. A distinctive feature of the laboratory is the attention towards Psittacids' viral diseases, which are diagnosed by PCR-based techniques eventually followed by sequencing analyses. All necessary equipments for traditional and molecular biology-based diagnoses are available.

LABORATORY OF PARASITOLOGY

Qualitative and quantitative copromicroscopy, haematological diagnoses (smears and modified Knott's test), dermatological diagnoses (skin scrapings, hair samples), identification of macroscopic endo- and ectoparasites, identification of domestic insects, PCR-diagnoses on biological samples and tissues, serological diagnoses (ELISA and WB analyses), rapid diagnoses on commercial kits and mycological diagnoses (microscopic, cultural, PCR-based) are provided. All necessary equipment for traditional and molecular diagnoses is available.

Several other laboratories at the Faculty (including the fore mentioned four) provide non-clinical services to the profession, companies and the general public.

Central clinical support services - Indicate the nature of these services and how they are organised (e.g. diagnostic imaging, anaesthesia, etc.)

The following two central clinical support services operate at the VTH:

- Diagnostic imaging;
- Anaesthesiology.

DIAGNOSTIC IMAGING

This service provides radiological, ultrasound and endoscopic diagnosis for the VTH and external patients (small, large and exotic animals). Nine rooms of the VTH are exclusively dedicated to diagnostic imaging activities. Bronchoscopy, rhinoscopy, cystoscopy, otoscopy, arthroscopy and gastro-intestinal endoscopy equipment is available for small animals procedures. Bronchoscopy, rhinoscopy, guttural pouches endoscopy, upper airway tract, gastro-intestinal endoscopy of the horse, cystoscopy and arthroscopy equipment is available for large animals procedures.

Major equipment includes:

- a CT scanner General Electric TAC-CT High speed (kVp120/130mA), used mainly for small animals;
- a remote-controller machine model GENIUS 7505 H306 equipped with a table allowing vertical and transverse movements. It has ODEL generator (125 kVp/500 mA). It has a X-ray tube Toshiba mod. RORIX DR 260H. It also has a fluoroscopy THOMSON TH 9429F with monitor. It is used for small animals;
- a PolLux X-ray machine, with a ODEL ORION generator type OT1601 (125 kVp/500 mA). It has a X-ray tube model R-Z9. It is used for small, exotic and rescued wild animals;
- a brilliancy intensifier Siemens BI125/20/40 (kVp 125/300mA) with a fluoroscopy, used for small animals;
- a hanging IAE generator (1000 kVp/1000 mA) allowing vertical and transverse movements to perform X-ray examination of the limbs, head and spine of the horse. The unit is equipped with a self adjustable potter with a vibrating grid 10:1 ratio for examination of the thorax and back of the horse;
- a portable X-ray unit Multimage COMPACT 20 VR-1020 (90KVp-20mA) on a metal orientable base. It is used in small and large animals;
- a portable radiology unit Orange ultra-light (weight 6 kg, 80 kVp/20 mA), used for large animals;
- a digital automatic X-ray film developer AGFA, scanner: ADC Solo Qmusica, printer DRYSTAR 3000 and WORKSTATION s.o. Solaris SUN Microsystem.
- an ultrasound scanner, echo-doppler color, Megas GP - Esaote Biomedica
- a portable ultrasound scanner SONOSITE mod. MicroMaxx ;
- a portable ultrasound scanner Honda, sectorial with probes 3,5 MHz;
- a portable ultrasound scanner Honda, liner probes 10 MHz;

- a portable ultrasound scanner Esaote mod Tringa liner probes 7,5 MHz;
- two Storz optical systems (rigid endoscopy);
- two Xion videoendoscopes (gastro-intestinal and respiratory flexible endoscopy);
- two Olympus fiber-endoscopes (respiratory and urinary flexible endoscopy);
- two endoscopy towers (monitor, light source, videoprocessor and camera);
- three recording system devices;
- two rigid endoscopes (arthroscopy), namely a Tontarra and a Smith & Nephew.

An agreement exists with the Bioindustry Park Centre at Colletterto Giacosa, 52 km away from the Faculty, for use of an MRI scanner in small animals.

ANAESTHESIOLOGY

This service takes care of sedations and anesthetic procedures for VTH patients (small, large and exotic animals) in case of surgical, endoscopic, diagnostic imaging (radiology and TC) and diagnostic (biopsy, bone marrow aspirate, liquor aspirate) procedures.

Major equipment includes:

- two multi-parametric monitors Intellivue MP20 Philips (ECG, NIBP, SpO₂);
- two multigas units Intellivue M1013A Philips (EtCO₂, multigas-analyzer);
- a multi-parametric monitor LIFE SCOPE I Nihon kohden BSM-2301K (ECG, NIBP, SpO₂, EtCO₂);
- two multi-parametric monitors LIFE SCOPE P Nihon kohden BSM-4103K (ECG, NIBP, IBP, SpO₂);
- a multigas unit Nihon kohden AG920RK (EtCO₂, multigas-analyzer);
- an emogas analyzer AVL OPTI Critical Analyzer;
- a mobile defibrillator CARDIOLIFE TEC-7511R;
- an anesthesia gas machine AM5000 Major with pulmonary ventilator Alpha Delta AD0055EN;
- a pulmonary ventilator Hallowel EMC model 2000;
- an anesthesia gas machine with pulmonary ventilator Claris Archimede;
- an anesthesia gas machine Kontron Trolley Series 5000-A-ISO with pulmonary ventilator Kontron ABT 5100B;
- an anesthesia gas machine Continental Type C 4575;
- anesthesia gas machine Modul Flex P4671;
- three trolley anaesthesia gas machines;
- an anesthesia gas machine Tiberius, for large animals;

- an anesthesia gas machine SAMED with pulmonary ventilator, for large animals;
- a Syringe pump SP-12S pro AITACS;
- a Syringe pump TE-311 TERUMO.

6.1.6 SLAUGHTERHOUSE FACILITIES

Describe briefly the slaughterhouse facility to which the Faculty has access, including distances

As anticipated, the Faculty owns a slaughterhouse (961 m²), which is located in Building F (“lilac”). It includes:

- a covered internal area for the slaughtering operations (310 m²);
- an area below ground level, intended for the storage of offal and as a separated warehouse (200 m²);
- an external area used as livestock reception area and a separated cargo deck for meat loading (306 m²);
- an external area to wash livestock transportation vehicles (80 m²);
- an external lairage area for sick or suspected animals (65 m²).

The main purpose of the slaughterhouse is to provide activities supporting teaching in Food Hygiene for undergraduate students and postgraduate students attending Specialization Schools. Accordingly, slaughtering is carried out with high technologic standards, following all hygienic measures and in compliance with EC regulations on Food Hygiene. A secondary goal of the plant is to provide the slaughtering of experimental animals for the Faculty or other institutions’ needs.

The plant was designed rationalizing work and educational needs, respecting the fundamental safety and hygienic principles of slaughtering and meat storage while ensuring the safety of personnel, students and all others attending the plant. In more detail, it is composed of:

- an outdoor enclosure (2,20 m high) made of metal and wood, designed to provide safety for handlers, students and visiting people and welfare during *ante-mortem* inspection;
- an external raised stockyard with water supplies and electricity, for the downloading and lairage of animals. In the same structure, veterinarians of the Public Health

Service fulfil all the mandatory controls of documents and the *ante-mortem* inspection. The stockyard is equipped with automatic water bowls and a wastewater disposal system;

- two elevated platforms on each side of the lairage stockyard, used respectively for the discharge of animals for emergency slaughter, and for the loading of halves and quarters and packaged products;
- a slaughter hall equipped with an observatory balcony for students, visiting people and veterinarians of the Public Health Service;
- a gut and tripe room connected with a plastic washable door to the slaughter hall;
- a head removal room with two direct connections to the dirty (bleeding) and the clean (upload) areas;
- a cutting room;
- an office for inspector veterinarians;
- an administrative office;
- a room with toilet, shower and separate lockers for each employee. The whole staff area is properly separated from the working area;
- a bathroom for employees working in the clean area of the slaughterhouse;
- a room below ground, with two chilling rooms for the offal of categories 1 and 3, storage of hide and skin and a separated warehouse;
- six chilling rooms at the same level of the slaughter hall. Of these, one is located in the gut and tripe room, three in the upload area (condemned meat, pre-chilling and chilling room, respectively) and the other two near the cutting room for the packaged meat and for carcasses of animals over 30 months;
- a vehicle washing area;
- a stockyard for animals being sick or suspected of disease.

The slaughter hall has large wall and ceiling windows for natural illumination. The windows have insect screens.

The plant is managed by an external operator, in the frame of a regular contract with the Faculty. Safety tools for private workers are provided by the external operator. Iron aprons, iron gloves, safety helmets provided by the Faculty are available for the safety of the students, staff and visiting people. The slaughtering rate per hour (bovines) has been established in 3 heads/hour and 15 heads/day. The maximum weekly capacity is 45-60

heads over three/four slaughtering sessions. However, the maximum capacity is achievable only with the aid of an External Chilling Unit for temporary storage of the meat.

6.1.7 FOODSTUFF PROCESSING UNITS

Describe briefly any access that the Faculty has to foodstuff processing units.

In the frame of special agreements, the Faculty has access to several types of external processing plants. They are visited by all students and the supervising teachers, during practical sessions of the courses of the Food Hygiene/Public Health subject area. A list has already been reported (please, see par. 4.1.5).

During the obligatory extramural training period in Food Hygiene, all students visit a range of additional slaughterhouses and foodstuff processing units under the tutorship of Official veterinarians (see par. 4.1.4).

6.1.8 WASTE MANAGEMENT

Briefly describe the systems and equipment used for disposing of waste material; cadavers, carcasses, biological waste of different types, excreta, etc.

A certified company (Gariglio, Volpiano, TO) is in charge to periodically collect for destruction the separate special containers in which the following waste material is temporary stored in each Department:

- sharp and contaminated instruments;
- contaminated materials (blood tubes, surgical sponges, bandages, etc);
- chemical toxic and hazardous waste (acid and alkaline substances, halogenated solvents, non-halogenated solvents, ethidium bromide, etc.).

Organs, carcasses and cadavers deriving from the activity of the dissection and necropsy rooms, the VTH and the research laboratories are temporary stored in large refrigerated rooms available in the section of Pathology and then collected by a certified company (IN.PRO.MA, Ceresole d'Alba, CN) with a twice-weekly frequency to be destroyed by incineration. The Faculty has not its own incinerator.

In addition, there are special containers in the Faculty for the collection and recycling of batteries, paper, toner, glass and plastic. Management of these wastes is up to the Municipality of Grugliasco.

6.1.9 FUTURE CHANGES

Outline any proposed changes in the premises that will have a substantial effect on the Faculty, indicate the stage which these have reached.

At the moment, we think that no changes in the premises could have a substantial effect on the (generally) satisfying functionality of the Faculty.

6.2 COMMENTS

Comment on the adequacy of the buildings in general for undergraduate teaching

Evidence shows that buildings are adequate for undergraduate teaching and the Faculty enjoys a good reputation for this at the academic national level. Questionnaires distributed to students on occasion of the annual evaluation of teaching quality confirm that the same opinion is shared by main stakeholders.

The single major structural problem which is worth signalling here is that, notwithstanding the air recycling system from the basement installed in the Faculty, high indoor temperature are reached during the summer especially in some lecture rooms, laboratories, staff offices, and in the surgical rooms.

Comment on the adequacy of the equipment in general for undergraduate teaching

As for buildings, there is little doubt that equipment in general is adequate for undergraduate teaching and that students share this opinion. It is worth stressing that departmental equipment, obtained by teachers following successful application to research funds, has not to be used for training of whole classes. Selected students use departmental equipment under the supervision of their academic tutor while preparing the Dissertation work.

The single major structural problem which is worth signalling here is that a proportion of the seminar rooms is not equipped for video-projection. Even if sufficient portable PCs and

video-projectors are available in the Departments and sections, this situation may result in unnecessary loss of lecture time and discomfort by the teachers.

Comment on the maintenance of buildings and equipment

Ordinary maintenance of buildings is in charge of UniTO. A peripheral office (“Centro Gestione Servizi”) is present in the Campus, and this is of help when any major or minor problems are signalled by the Dean or the Directors of the Departments. The expenses are covered within the limits of an annual budget prepared by the office. Notwithstanding, and despite recent construction, there are (limited) parts of the Faculty which are already suffering from some moisture related defects of walls, due to rain water infiltration, rain dropping during storms, and wall cracking in the proximity of the (heavy) anti-fire doors. Maintenance of equipment used for teaching purposes is in charge of the Faculty. At present, resources seem sufficient. Obviously, it may be foreseen that maintenance costs of now relatively new equipment (mainly in the VTH and “Lilac Building”) will increase in years, and that additional resources will have to be found to keep the current good standard.

6.3 SUGGESTIONS

If you are unhappy with any situation, please list any improvements you would make in order of preference

Though biosecurity reasons make the hospitalization of equines inadvisable in premises housing normal conspecifics, construction of a dedicated equine hospital in the Campus is not realistic nowadays due to budget constraints and the concerns about its long term economic viability. On the other hand, the new facility for isolation of large animals cannot be a substitute, since housing a single infectious patient would automatically imply the paralysis of the hospitalization service. A sustainable and reasonable compromise could be the design and construction of a “light” premise (with 8-10 individual boxes) for the quarantine of incoming horses. This premise could also be functional to the safe introduction of replacement farm animals in the Teaching and Experimental Farm.

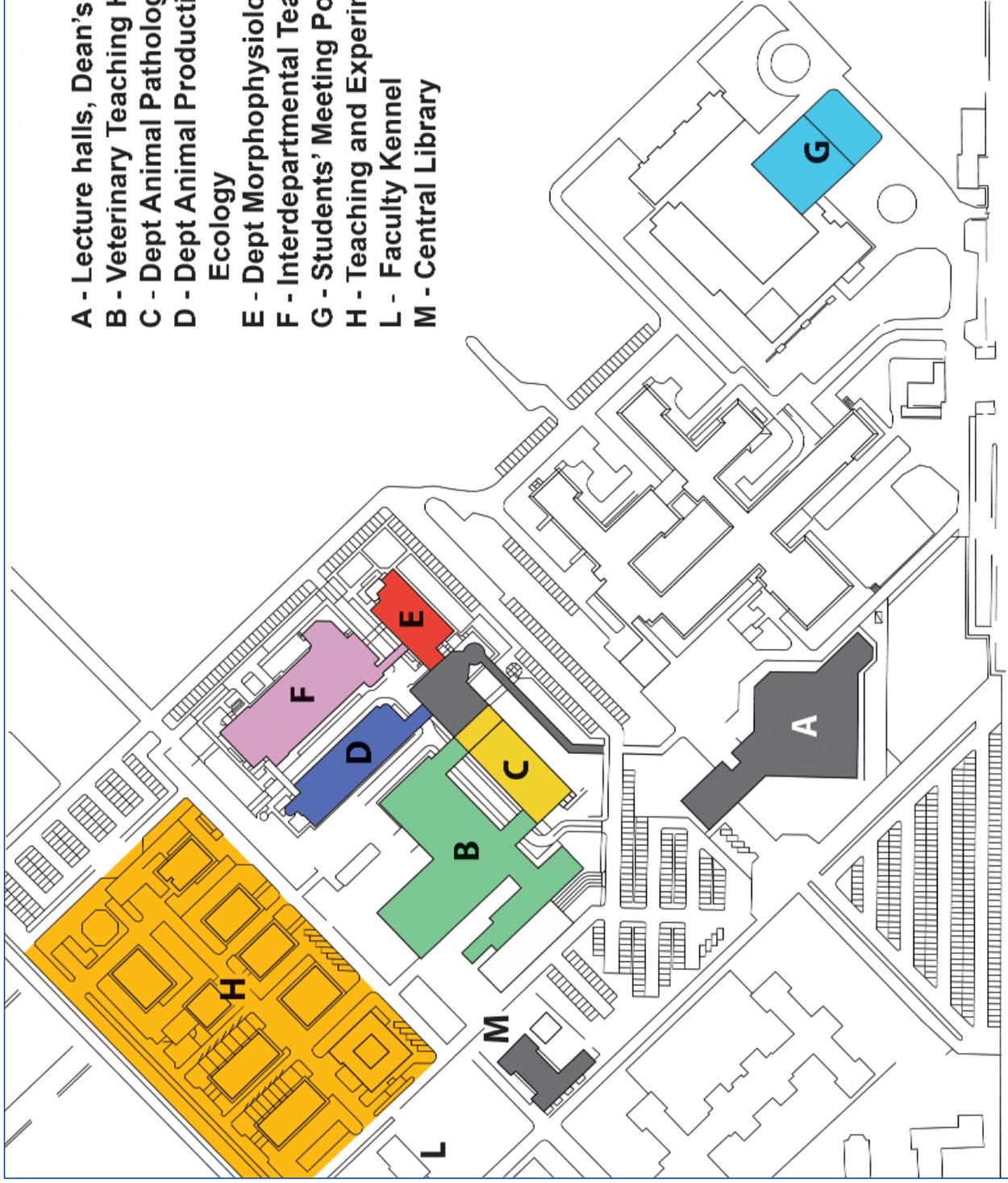
A rabbit-house and an egg incubation/hatching room should again be made available to students in the Teaching and Experimental Farm.

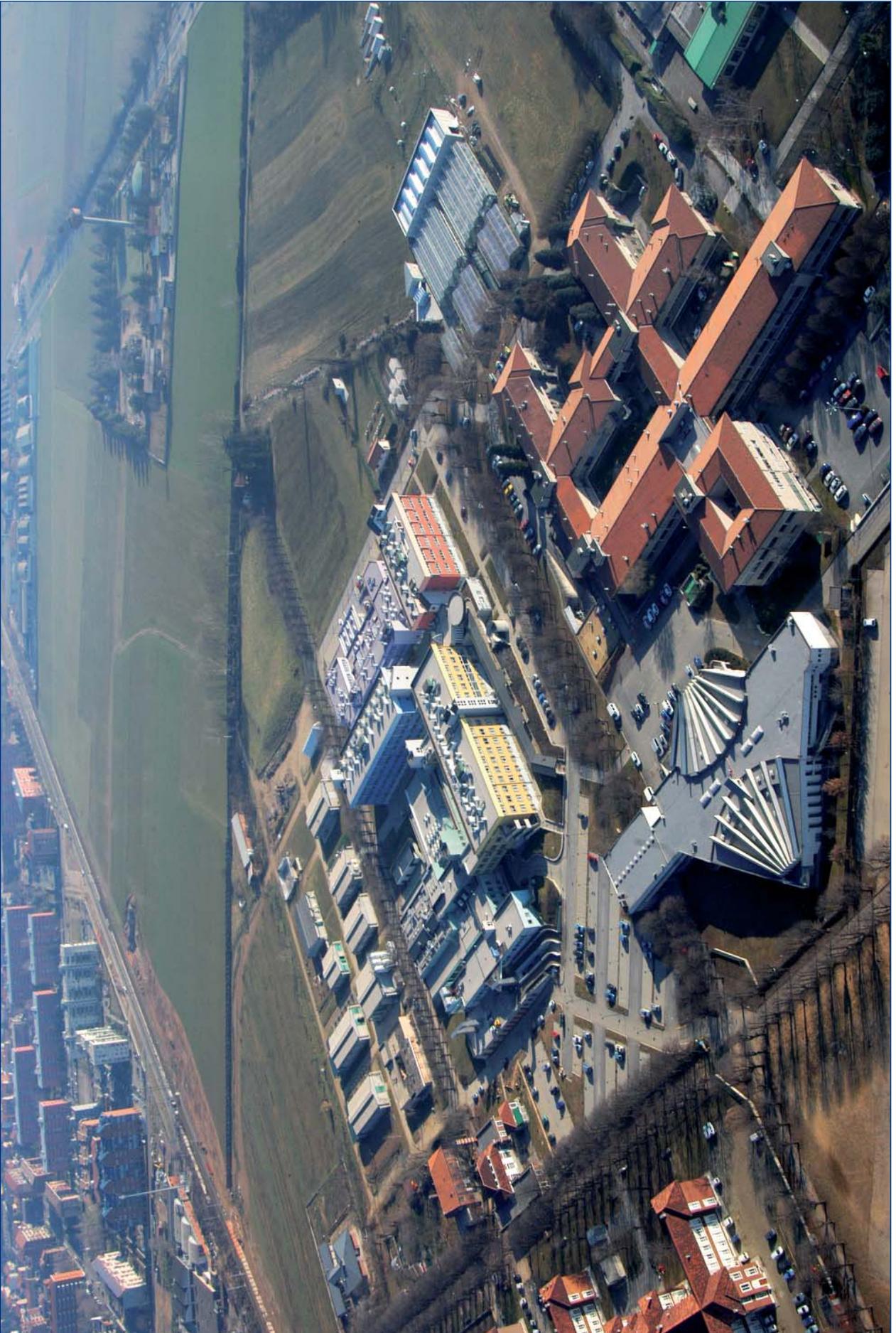
More funds should be assigned for ordinary repairs of those parts of the Faculty which are already suffering due to planning defects.

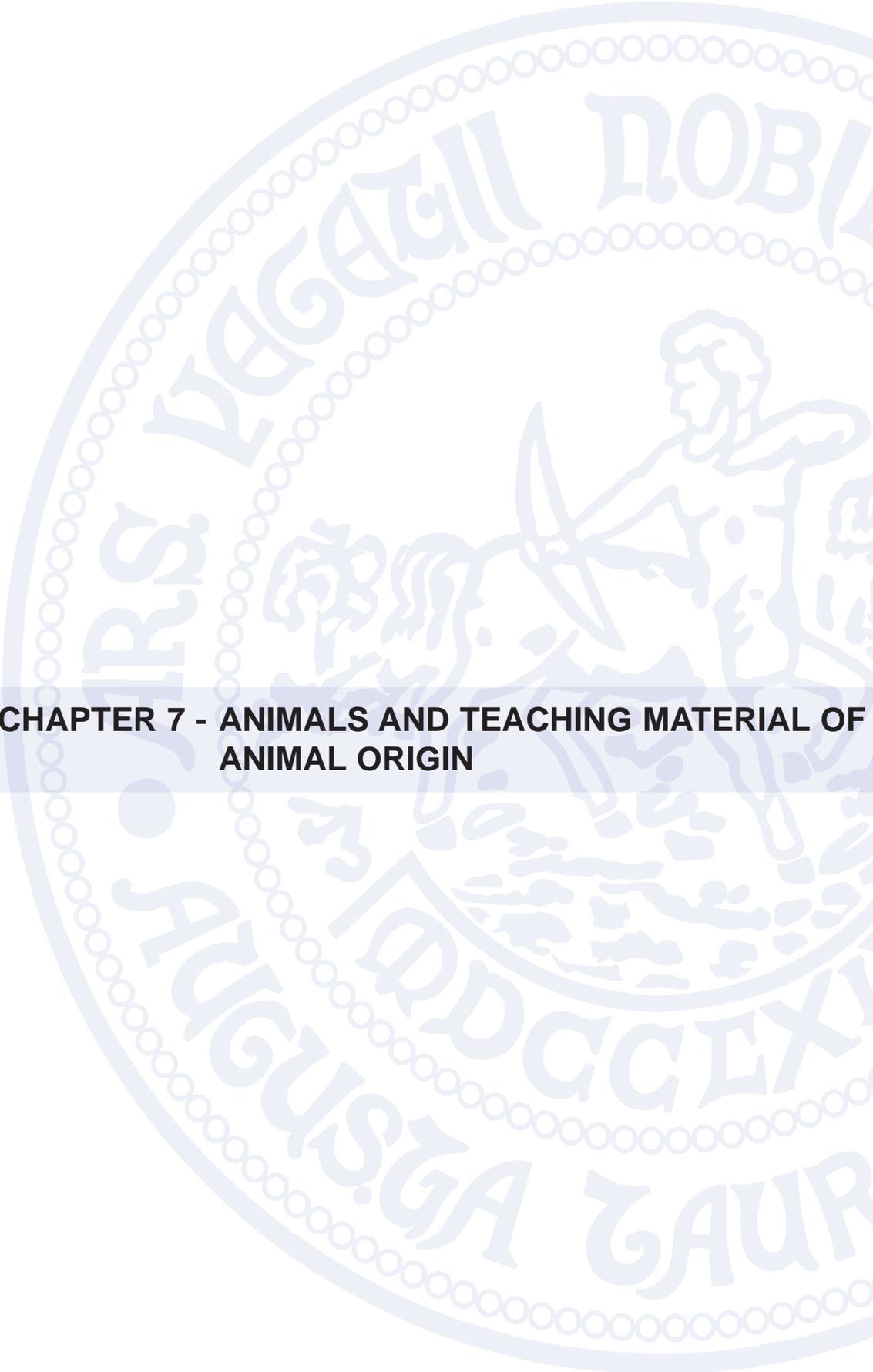
Permanent equipment for video-projection in all seminar rooms would be welcome.

An efficient air-conditioning system in all rooms (with priority for lecture rooms in Building A) would be welcome.

- A - Lecture halls, Dean's Office**
- B - Veterinary Teaching Hospital**
- C - Dept Animal Pathology**
- D - Dept Animal Production, Epidemiology and Ecology**
- E - Dept Morphophysiology**
- F - Interdepartmental Teaching Centre**
- G - Students' Meeting Point**
- H - Teaching and Experimental Farm**
- L - Faculty Kennel**
- M - Central Library**







179 **CHAPTER 7 - ANIMALS AND TEACHING MATERIAL OF ANIMAL ORIGIN**



Outside teaching in a cheese production plant



Chapter 7- ANIMALS AND TEACHING MATERIAL OF ANIMAL ORIGIN

7.1 FACTUAL INFORMATION

7.1.1 ANATOMY

Indicate the materials that are used in practical anatomical training, and how these are obtained and stored.

Table 7.1: Material used in practical anatomical training

	Dog		ruminant		equine		other	
	Year N	Year N-1	Year N	Year N-1	Year N	Year N-1	Year N	Year N-1
live animals	0	0	0	0	0	0	0	0
Cadavers	33	41	3°	3°	0	0	0	0
Specimen	0	0	40	57	42	72	40	57
Other ^{*)}	1	1	0	0	0	0	0	0
eg ultrasound	0	0	0	0	0	0	0	0
computer assisted teaching	0	0	0	0	0	0	0	0

²⁾ * a fixed specimen of canine CNS; °roe deer.

Specimen are the following:

- for ruminants, equines and other (swines): lungs, heart, liver, spleen, genital organs, digestive tract (stomach only, in case of equines);
- for equines only: fore and hindlimbs;
- for cattle only: head.

Cadavers are obtained from public kennels and public wildlife agencies, whereas specimens are obtained from slaughterhouses, on the basis of agreements. Both are transported to the Faculty with an equipped vehicle which is made available, on purpose, by the Pathological Anatomy section.

All wet material used is properly stored in the refrigerated rooms adjacent to the Anatomical dissection room ("lilac building").

In addition, complete series of bones of all domestic species are available at the Osteology room (“lilac building”).

7.1.2 PATHOLOGY

Table 7.2: Number of necropsies over the past 3 years

	Species	Number of necropsies			Average
		year N	year N-1	year N-2	
Food-producing animals	cattle	121	85	93	} 171
	small ruminants	27	14	16	
	pigs	30	90	40	
	other farm animals	0	0	0	
Equine		10	9	11	10
Poultry		150	146	140	} 152
Rabbits		5	8	7	
Companion animals/exotic	dogs	90	69	92	} 140
	cats	50	35	37	
	other**	15	12	20	

** ferrets, hamsters, tortoises, psittacid birds

Additional sources for the teaching of necropsies and pathological anatomy, are:

- wildlife, mostly cadavers conveyed to the Faculty by the competent Agencies;
- condemned organs from several slaughterhouses.

The corresponding figures for the last two years are 843 (year N), 1142 (year N-1) and 374 (year N-2) wildlife cadavers, and 780 condemned organs/year (Table 7.2bis).

Table 7.2bis: Slaughterhouse material

Species	Number of specimens			Average
	Year N	year N-1	year N-2	
Cattle	390	211	300	780
Small ruminants	210	25	108	
Pigs	693	33	164	
Equine	180	15	13	

In the last three years, activity of the Necropsy Room has resulted in 2993 kg/year of waste material conveyed to destruction.

Cadavers examined at the Pathological Anatomy section originate from the VTH, the Faculty Kennel, the Teaching and Experimental Farm, practitioners, outside clinics and farms, zoological gardens, natural parks and hunting estates. Since 2007, cattle and wildlife are regularly (weekly) brought for necropsy and diagnosis in the frame of a bilateral agreement with the Piedmont Regional Veterinary Public Health Service.

7.1.3 ANIMAL PRODUCTION

Indicate the availability of food-producing animals for the practical teaching of students: a) on the site of the institution; b) on other sites to which the institution has access.

Food-producing animals currently available at the Teaching and Experimental farm are:

- 40-45 cattle, comprising 20 cows, 5 replacement heifers and 15-20 steers. All belongs to the Piemontese breed. About 20 steers/year are fattened and then slaughtered in the Faculty slaughterhouse;
- a flock of 40 sheep, producing a similar number of lambs/year. All belongs to the Biellese breed;
- an experimental group of 20-40 goats of mixed breeds;
- a boar, 8 sows and 4 guilts, with a variable number of weaners and fatteners, limited by the capacity of the piggery (in 2009, they were 54 and 56 respectively).

Different breeds are present (Large White, Landrace, Pietrain, Mora Romagnola, Minipigs);

- 20-30 egg laying hens (a hundred up until year N-1) and a variable number of fattening poultry (about 400 slaughtered in the year). They belong to different industrial and local (rare) breeds.

Furthermore, there are 7-9 horses permanently housed for teaching purposes (6 mares and 3 geldings in August 2010).

Other sites are available for outside teaching of Animal Production disciplines, namely:

- the International Equine Centre (“Centro Internazionale del Cavallo”; <http://www.centrointernazionaledelcavallo.it/>) in Druento (TO), 15 km away from the Campus (see also par. 5.1.1);
- an organic pig farm (400 pigs) located in Fossano, 70 km away from the Campus (Cooperativa “La Sorgente”; <http://www.suinobiologico.it/pagineita/cooperativa.htm>);
- a dairy farm (300 cows) located in Villanova d’Asti (AT) 33 km away from the Campus (Mr. Gonella);
- a beef cattle genetic station (60 bulls and 150 bull calves under selection) located in Carrù, 88 km away from the Campus (A.NA.BO.RA.PI, <http://www.anaborapi.it>);
- a poultry farm (100.000 chicken broilers) located in Chivasso (TO), 24 km away from the Campus (Mr. Cena);
- a turkey farm (50.000 turkey broilers) located in Volpiano (TO), 20 km away from the Campus (farm “Cascina Rosanina” by Mr. Taricco).
- a rainbow trout farm (2.500 tons/year) located in Levaldigi (CN), 75 km away from the Campus (azienda Mr. Monetto);
- the Brown trout regional hatchery, located in Morgex (AO), 141 km away from the Campus.

Strictly hands-on activities in small groups are carried out in the first listed one (see also par. 5.1.1). The remaining farms are visited by all students (usually in large groups) under the guidance of the teachers.

Additional farms and animal food production facilities are visited by the students during the obligatory extramural period, under the tutoring of an Official Veterinarian (see also par. 4.1.4).

7.1.4 FOOD HYGIENE/PUBLIC HEALTH

Indicate the availability of farm animals and products of animal origin for the practical teaching of students in veterinary public health, food hygiene, inspection and technology.

On average, 150 cattle slaughtered at the Faculty (out of a total of approximately 550) are annually available to students for training in small groups (see also par. 6.1.6). About 50-70 additional cattle or small ruminants are available during visits (one/group of students/year) to an outside slaughterhouse. All students are bound to join the visit.

Other plants (and the corresponding products of animal origin) are available to all 4th year students during outside practicals of the Food Hygiene/Food Technology courses. They have been already listed in previous par. 4.1.5 and Chapter 5, Annex 1 (please see).

Additional plants are visited by the students during the obligatory extramural period under the tutoring of an Official Veterinarian (see par. 4.1.4).

7.1.5 CONSULTATIONS AND PATIENT FLOW SERVICES

7.1.5.1 CONSULTATIONS

State the number of weeks, in the course of the year, during which the clinics are open. State the number of consultation days each week. State the consultation hours.

The VTH is open for consultations, which are mostly by appointment, for 5 days a week (Monday to Friday) during 50 weeks in the year. There is one week break at Christmas and a second one in mid-August. Consultation hours are from 9:00 to 14:00. Sometimes, scheduled consultations and surgeries may extend beyond that time in the afternoon. Within the fore mentioned consultation hours, the complete timetable for all services provided at the VTH is the following:

Internal medicine	All days
Cardiology	All days
Dermatology	Monday
Medical Neurology	Thursday (all days for urgent cases)
Ophthalmology	Monday
Ultrasound diagnosis	All days (but Wednesday)
Endoscopy	Monday, Tuesday, Wednesday

Radiology	All days
CT	All days (but Wednesday)
RMI*	Wednesday
Consultations soft tissue surgery	Tuesday, Thursday, Friday
Consultations hard tissue surgery	Monday, Wednesday
Interventions soft tissue surgery	Monday, Wednesday (and Friday when needed)
Interventions hard tissue surgery	Tuesday, Thursday
Cancer Chemotherapy	Monday, Thursday
Consultations Obstetrics	Wednesday
Interventions Obstetrics	Thursday, Friday
Clinical Diagnostic Laboratory	All days
Consultations Exotics	Monday, Tuesday (and the other days when needed)
Consultations Large Animals	All days
Emergency	24/7

* outside service, though operated (in that particular day) by a member of the academic staff.

Since 2003, hospitalization and intensive care services are provided by the VTH for 24 hours a day during 50 weeks in the year. Since 2010, emergency services are also provided by the VTH for 24 hours a day during the whole year.

7.1.5.2 PATIENT FLOW

The number of animals to be stated are for all disciplines combined (medicine, surgery, reproduction, etc.). In Table 7.3 only animals coming into the Faculty should be included. Animals studied in practical teaching outside the Faculty should be entered in the section entitled "Ambulatory Clinic" (Table 7.4).

Table 7.3: Number of cases: a) received for consultation, and b) hospitalised in the Faculty clinics, in the past three years.

Species		Number of cases						Average
		Year N*		Year N-1		Year N-2		
		a	b	a	b	a	b	
Food producing	Bovine	8	8	0	0	8	8	8
	Ovine, caprine	1	1	1	1	0	0	
	Porcine	7	7	0	0	0	0	
	Other farm animals**	0	0	0	0	0	0	
Poultry		0	0	0	0	0	0	12
Rabbits		15	0	10	0	12	0	
Equine		70	44	71	59	81	65	74
Companion animals/exotics	Canine	3292	581	2891	551	2930	534	3973
	Feline	760	153	927	183	864	156	
	other**	135	68	92	40	52	27	

*year prior to evaluation, ** hamsters, guinea pigs, ferrets, hedgehogs, red foxes, roe deer, psittacid birds, raptor birds, tortoises.

“Other” animals (as per Table 7.3) are pets (hamsters, guinea pigs, ferrets, psittacid birds, tortoises) or traumatized/sick wildlife conveyed by a local competent administration (Province of Torino, Wildlife Service), within an agreement with the Faculty.

7.1.6 VEHICLES FOR ANIMAL TRANSPORT

State the number and nature of the Faculty vehicles that can be used to bring sick animals to the clinics.

For several reasons, sick animals are rarely brought to the VTH by means of Faculty vehicles. When this occurred in the last years (a few traumatized or sick calves), an authorized trailer (an adapted Ford Transit with a 800 kg capacity) available at the Teaching and Experimental Farm was used. Personnel at the Farm is more frequently involved in the transport of healthy animal with the trailer, and they are officially authorized for this task having the proper driving licence and having followed a formation course.

7.1.7 ON-CALL EMERGENCY SERVICE

Outline what emergency service is available (full-time, 24 h service, ON-CALL or 8-22 h duty) and discriminate for species.

An emergency service is available at the Faculty, since:

- August 2010, for companion animals;
- May 2010, for equines;
- May 2010, for farm animals (mainly cattle);
- March 2010, for wildlife.

The emergency service for companion animals is run by (and at) the VTH, and is coordinated and supervised by a member of the teaching staff. On rotation, a dedicated veterinarian is present in the unit (three 8-hour rounds per day). She/he may be immediately supported, if indicated, by the veterinarian on duty at the adjacent unit for hospitalization and intensive care. On duty students are always present. The phone number is +39-011-6709331.

The on-call emergency service for equines is run by (and at) the VTH, and is coordinated and supervised by a member of the teaching staff. Students on duty are those who elicited to spend in ippiatrics their obligatory period in one of the Faculty operated Emergency services (see also par. 4.1.3); they are committed to 22 8-hour rounds spread over a semester. The phone number of the service is +39-345-5674455

The on-call emergency service for farm animals is run by a team of practitioners operating in the surroundings of Torino and the Campus. It is leaded by an experienced veterinarian that the Faculty has officially hired on purpose. Students on duty are those who elicited to spend in buiatrics their obligatory period in one of the Faculty operated Emergency services (see also par. 4.1.3); they are committed to 25 7-hour rounds spread over a semester. The phone number of the service is +39-335-7893209.

Finally, the emergency service for wildlife is run, on-call (for 24 h a day during 50 weeks/year), by three members of the teaching staff. This service is a extension of the fore mentioned agreement with the Province of Torino (Wildlife Service) (see par. 7.1.5). The phone number is +39-011-6709157/8.

7.1.8 ON FARM TEACHING AND OUTSIDE PATIENT CARE

At the Faculty, on farm teaching of the common procedures that practitioners are used to perform (e.g., trans-rectal palpation of mares/cows) is facilitated by housing animals of different species at the Teaching and Experimental Farm. These animals are used by the clinical teaching staff on occasion of practicals of core (e.g., Propaedeutics, Reproduction Disorders, Obstetrics, Parasitology and Parasitic Diseases) and elective courses (e.g., the “orientation package” on ruminants), carried out in small groups. Notwithstanding, it is on outside teaching that students are exposed to an authentic clinical caseload.

7.1.8.1 AMBULATORY (MOBILE) CLINIC

The Ambulatory (Mobile) Clinic is defined as a unit which provides on-call outside services to farms and other institutions and is generally operated on a commercial basis.

The Mobile Clinic, as the students and staff are used to name it since it was run in late 2008, is currently not operated on a commercial basis but for a limited part of its activity. Rather, the Mobile Clinic at the Faculty must be meant functional to outside teaching in small groups, mostly for students in their 4th and 5th curricular year (a Mobile Clinic round in each year). As such, the Mobile Clinic has not to do with the Emergency service (see 7.1.7). Additional use is done by several teachers of the mini buses available at the Faculty, but this will be illustrated under the successive heading 7.1.8.2, “Other on farm services and outside teaching”.

State the number of hours of operation per week. What is the degree of student participation (include duties)?

The Mobile Clinic service is active during a number of weeks corresponding to the number of scheduled 5-day rounds for the students in their 4th and 5th curricular year. Since the small groups are composed of 4-6 students, rounds were 39 in year N-1 and 34 in year N (19 in N-2 when rounds could be organized for 4th year students only). During these weeks, the Mobile Clinic is operated from Monday to Friday from 7:30-8.30 till 13:00-14:00, depending on the distance of the visited farm/s from the Campus. The arrival time is dictated by the lectures’ timetable, since in the 4th and 5th curricular year lectures begin at 14:30. This is a mandatory activity, and attendance of the scheduled students is regularly checked.

The rounds follow a scheme, in which the same day of the week is assigned to activities of the same discipline. The schemes of the rounds involving, respectively, the 4th and 5th year students are the following:

Fourth Year

DAY	DISCIPLINE
MONDAY	Preventive Veterinary Medicine
TUESDAY	Reproduction
WEDNESDAY	Internal Medicine
THURSDAY	Reproduction
FRIDAY	Large Animal Surgery

Fifth Year

DAY	DISCIPLINE
MONDAY	Internal Medicine
TUESDAY	Obstetrics
WEDNESDAY	Internal Medicine
THURSDAY	Obstetrics
FRIDAY	Large Animal Surgery

A full-time contracted veterinarian – currently a PhD Diplomat – is in charge of organizing the visits in strict conjunction with teachers of the relevant scheduled disciplines. In the case of farm animals, this implies the availability of recipient farms (special agreements exist with three, but several other farms open the doors on request of known teachers, e.g. those providing advisory services) and a range of motivated practitioners wishing to collaborate on the spot (see also par. 7.1.9). For field equine surgery, cases are directly provided by the teacher (a part-time member of the permanent staff). Finally, in the case of Preventive Veterinary Medicine, an arrangement exists with the local Sanitary Unit (ASL TO3), permitting to participate to vaccinations, field testing for notifiable diseases, eradication campaigns, etc. A list of the main hands on activities by the students in the different disciplines is provided in Annex 7.2.

The full-time contracted veterinarian responsible to run the Mobile Clinic has other tasks. He participates in each visit (with a clear teaching role actively when focused on reproduction), takes care that all necessary equipment is available on the mini-bus, actually drives the minibus, refreshes the students on safe behaviour to adopt when approaching large animals, supervises students on compilation of the case reports (which is mandatory), keeps a register of the Mobile Clinic activities and checks attendance by the scheduled students.

Members of the permanent teaching staff participate in the large majority of these visits.

State the number, the type and the seating capacity of the vehicles used to transport students working in the ambulatory (mobile) clinic.

Three 9 seats minibuses are available at the Faculty, namely a Fiat Ducato registered in 2009, a Ford Transit registered in 2003 and a second Fiat Ducato registered in 1995. The first is the preferred one for visits with the Mobile Clinic.

Another vehicle – a Fiat Ducato Maxi equipped with rich laboratory supplies, registered in 2008 – is available for particular needs: assistance to horse competitions, embryo-transfer procedures and support to perform laboratory analyses on farm.

State the approximate number of sick animals (specify cattle, swine, equine, poultry or small ruminants, others) seen by the ambulatory clinic per year during the past three years (Table 7.4).

Table 7.4a: **Number of cases seen by the Ambulatory (mobile) Clinic in the past three years (°).**

	Species	Number of patients (°)			Average
		year N*	year N-1	year N-2	
Food-producing animals	Cattle	664	287	0	} 398
	small ruminants	168	10	0	
	Pigs	4	60	0	
	other farm animals**	0	0	0	
Poultry (no of flocks)		1	1	0	} 1
Rabbits (no production units)		0	0	0	
Equine		33	18	0	17
Other**		2***	2	0	1

*year prior to visitation, **Indicate species

*** (year N) 2 production units (trouts + bees); (year N-1) 2 production units (trouts + bees)

(°) for the aims of this table, a case (patient) was considered as such only when leading to compilation of a case report. Herd health visits and simple clinical visits/trans-rectal palpations of healthy animals, though of undeniable training value, were non included.

State the average number of visits in a year made by the ambulatory clinic to farms and other institutions.

The Mobile Clinic performs, on average, 220-250 visits to farms and other outside institutions over 160-190 annual days of activity with the students in their 4th and 5th curricular year.

7.1.8.2 OTHER ON FARM SERVICES AND OUTSIDE TEACHING

If there is no on duty Ambulatory (Mobile) clinic, a Faculty may have defined contracts with farms or other institutions to allow for outside teaching and patient care. Similarly, a Faculty may provide herd-health services. Please indicate if and to what extent this applies to your Faculty. If applicable please provide no. of patients seen on outside teaching

As anticipated, additional outside (on farm) teaching in small groups is provided to students beyond the activity of the Mobile Clinic. Visits to farms are amongst the practicals of core courses (e.g., Parasitology and Parasitic Diseases) and, more frequently, of elective courses (e.g., the “orientation packages” focused on ruminants, equines, exotics, or the preventive veterinary medicine). A popular event amongst students eliciting the “orientation package” on ruminants is a residential week on bovine obstetrics and reproduction disorders under the guidance of the teacher, during which students are involved in the daily activity of practitioners operating in one of the core areas of intensive dairy farming in the Country (Reggio Emilia). Further outside teaching is provided, since May 2010, to those students that elicit to join the Emergency services for equines or farm animals (see later in this chapter). Finally, outside teaching is performed at stables and equine breeding and training centers for those students that join the elective APS on equine surgery (see par. 4.1.3), offered by a Faculty teacher.

Table 7.4b: **Number of patients seen on outside teaching in the past three years.**

	Species	Number of patients (°)			Average
		year N*	year N-1	year N-2	
Food-producing animals	Cattle	312	135	108	} 206
	Small ruminants*	6	4	3	
	Pigs	43	0	8	
	Other farm animals**	0	0	0	
Equine		191	198	206	198
Other		0	0	0	0

*year prior to visitation, **Indicate species

(°) for the aims of this table, a case (patient) was considered as such only when leading to compilation of a case report. Herd health visits and simple clinical visits/trans-rectal palpations of healthy animals, though of undeniable training value, were non included.

Independently of the outside teaching activities scheduled within core and elective courses, some students are exposed to further caseload in the frame of their Dissertation work, or because broadly involved in the advisory and research activity of the

departmental sections to which the teacher tutoring the Dissertation work belongs. On purpose, these patients have not been included in Table 7.4b.

7.1.9 OTHER INFORMATION

Indicate any notable additional outside sources of material for clinical training purposes, such as animal charities, animals awaiting slaughter, etc.

As anticipated (see par. 6.1.1 and 6.1.3), the Faculty Kennel is committed to receive animals of two typologies:

- “healthy” lost or abandoned dogs captured by the competent service of the Municipality of Grugliasco (and some other neighbouring Municipalities) in the surroundings of the Campus;
- sick dogs and cats conveyed by animal charities in the surroundings, within an agreement with the Piedmont Regional Public Health Services.

Due to ongoing organization and “political” problems, the second ones are still in a minority. Furthermore, independent agreements with 4 animal charities allow hospitalization of additional stray dogs and cats for neutering. All these owner-lacking animals are of a special interest for the clinical training of students. Overall, the companion animals housed/hospitalized at the Faculty Kennel during the last three years have been in number of 448, with a clear trend to increasing (from 75 during year N-2 to 222 during year N). In parallel, neutering operations on these animals have raised from 1 in 2007 to 76 in 2009.

Production animals awaiting slaughter are no longer used for practicals on clinical procedures.

Indicate how the level of clinical service that is offered by the Faculty (in small companion animals, equines and production animals) compares with outside practices in terms of facilities, hours of service, equipment, expertise, responsiveness, etc.

Companion animals

It is a recognized fact amongst practitioners that the level of clinical service provided at the VTH compares favourably with the external clinics and cabinets. The good quality of the service is the joint result of the preparation of the staff and the availability of modern outstanding equipment (see also par. 6.1.1 and 6.1.5). Only a very limited number of Clinics operating in the North-west of Italy have equipment of a comparable level, while

most are far below. As regards the hours of service, outside practices have usually a larger timetable for consultations, but this is compensated, at the VTH, by the availability of a 24-hour Hospitalization and Intensive Care unit, just recently (August 2010) integrated with the 24-hour Emergency.

The VTH has good qualified staff based on specialists (Diplomats) or clinicians recognized as being experts in their area. Among permanent staff there are three Diplomats of the following European Colleges: Veterinary Surgery, Animal Reproduction, Veterinary Neurology; moreover, among the non permanent staff there are currently a Diplomat of the American College of Veterinary Internal Medicine, a ECVIM-CA (Cardiology) candidate and two residents (2nd and 3rd year) of the European College of Veterinary Surgery (ECVS). The Faculty is recognized for a standard ECVS residency program.

Large animals

The level of clinical service that the Faculty is able to offer in equines and production animals is overall good but still in progress. Equipment at the Faculty is of a higher standard than that available to the majority of practitioners. In the case of equines, activity is carried out at the VTH and in outside premises on demand. In the case of production animals, activity is mostly carried on farms, in the frame of planned teaching visits with the Mobile Clinic, and on-demand. Most advisory on-demand visits are performed in the twelve hours from request, while an emergency service is provided by the Faculty since May 2010 (see also par. 7.1.7). Currently, the Faculty is able to hospitalize equines, calves and small ruminants, but not adult cattle. This service will be improved with the entry into function of the stall for diseased or infected animals (see also par. 6.1.2).

The staff dedicated to large animals includes two Diplomats of European Colleges, namely one in Bovine Health Management and one in Neurology and in Bovine Health Management. Other staff members are recognized as being experts in their area.

Provide an indication in percentage terms of the proportion of cases that are primary (i.e. first opinion), and referrals (provide a breakdown by species, if helpful). If the Faculty has a particular aim or policy as regards this mix, describe it.

Companion animals

Patients are mainly referred by outside veterinarians (80-85%), therefore only 15-20% are first option cases. Most consultations are regulated by appointment. The Faculty has the

clear policy is to keep this proportion steady to limit the competence with outside practices and maintain good relationships with the profession.

Large animals

All ruminant cases are referred by outside veterinarians. Equine cases are a balanced mix of referred and first option cases, the last ones deriving from the clinical activity of a part-time teacher or from other advisory activities (e.g., on artificial insemination).

Indicate what areas of clinical specialisation are covered, and the extent of the coverage (for example, a veterinarian with a particular specialisation may see patients in the clinic for one day a week, 3 afternoons, etc.).

Please, see previous par. 7.1.5.1

Indicate the relationship the Faculty has with outside practitioners (in small companion animals, equines and production animals) in terms of matters such as referral work, providing diagnostic or advisory services for private practitioners, practitioners participating in teaching, holiday or 'seeing practice' work for students, feedback on the level of clinical training. Describe (if applicable) any other relationships with outside organisations that are routinely used to provide students with training (in particular practical training) in other clinical subjects (e.g. pathology work, interaction with state veterinary work).

Companion animals

As suggested by the increasing referred caseload at the VTH, the Faculty has good relationships with outside practitioners and (generally) enjoys their credit. At the same time, the Faculty provides to colleagues appreciated diagnostic services, namely diagnostic imaging (radiology, ultrasound, endoscopy, CT and MRI) and a clinical diagnostic laboratory whose activity is also supported by laboratories at the Pathological Anatomy, Microbiology & Infectious Diseases and Parasitology & Parasitic Diseases sections (see also par. 6.1.5).

Production animals

Relationships with practitioners have improved in recent years and tend to be especially good. As already mentioned, activity is carried out in the frame of planned teaching visits with the Mobile Clinic, and on-demand. Large animal neurology and cattle embryo transfer practice represent the two areas of expertise for which the advisory activity of teachers is requested more frequently.

Equines

Relationships with practitioners tends to be good and cases referred by outdoor colleagues are on the increase. Orthopaedics and artificial insemination are the areas of expertise for which the advisory activity of the staff is requested more frequently. Since 2009, the Faculty provides to colleagues an appreciated direct-phone-consultation service on proper management of musculo-skeletal disorders. In recent years, skilled practitioners have been invited to participate in theoretical and practical teaching activities at the Faculty.

Other

Since 2005, the Piedmont Regional Government established at the Faculty the Regional Centre for Veterinary Pharmacovigilance. Veterinarians, physicians, pharmacists, animal owners and breeders can refer to the Centre of Pharmacovigilance using a computerized method, whenever they record any adverse reaction related to the use of a medicine in animals. From the Centre they can obtain a scientific support in the management of the case or in the choice of analyses, if necessary. Finally, the Centre sends in real-time the report to the Italian Ministry of Health. A major task in last two years was to collect post-marketing data regarding the adverse drug reactions caused by BTV-8 vaccines in veterinary practice and to report them to the competent Italian Authorities and EMEA.

On request, practitioners are offered the possibility to join selected services at VTH for residency periods of 3 to 6 months. In the last 4 years, these short-term residents (named "Laureati Frequentatori") were 98 in number, split between 67 former students, 25 graduates of other Faculties in the Country, and 6 foreign graduates.

Experienced practitioners are often invited to participate in a range of teaching activities, such as lectures (as "Hired Professors"), seminars (more frequently within elective courses), the Emergency Service for farm animals, visits by the Mobile Clinic (where practitioners, as the hosting farm consultants, are asked to illustrate the scenery and the individual clinical cases justifying the visit, and participate in the diagnostic and therapeutic actions) and the elective extra-mural clinical training in form of APS stages (see par. 4.1.2 and 4.1.3). A list of clinics, practitioners and other relevant institutions which are available (through signed agreements) to receive students asking for APS stages has been provided (par. 5.1.1). Contacts between the teaching staff and outside colleagues are also frequent while tutoring students on their Dissertation work.

Feedback by practitioners on the level of clinical training at the Faculty is collected at the individual level by several motivated members of the teaching staff, with sometimes

contrasting results deriving from individual factors of the colleague and the students she/he happened to get in touch (and maybe the investigating teacher, too). Under these circumstances, a commonly shared opinion of colleagues about this delicate point is frankly difficult and possibly incorrect to report.

Relationships (and the corresponding agreements) also exist with outside organisations to provide students with practical training in:

- elective pathology work, at the local reference diagnostic institution (the Istituto Zooprofilattico Sperimentale);
- state veterinary work, namely at all sanitary units (ASLs) in the region for: i) the obligatory extramural training in “Food Inspection and Control” and in “Animal Husbandry” (see par. 4.1.4 and 4.1.5); ii) a day focused on Preventive Veterinary Medicine in each round of the Mobile Clinic attended, in small groups, by the 4th year students; iii) elective stages (APSs).

Provide an outline of the administrative system(s) used for the patients, e.g. in terms of how case records are kept, how data are retrieved, whether systems are centralised, etc.

Since May 2009, the previous administrative system at the VTH (simple and limited in use) has been substituted with a new and customized software. This Global Management System, including document repository and administration, covers all the activities of the VTH both on the administrative (finance) side, and on the medical and teaching side. On acceptance, the data of the owner and patient are recorded by the front office at the VTH. Following visitation or specific diagnostic procedures and therapies, all relevant information is up-loaded by the students on duty in the case record, under the supervision of the staff member/s responsible of that particular case. When indicated, stored data can be retrieved and consulted by the staff and students from all Faculty terminals, including those available in all consulting rooms. Before 2009, the collection and storage of clinical data was run on paper case records, which are already available in the VTH archives. Each year, several students make profitable use of the case records for clinically oriented Dissertation works (see also par. 13.1).

7.1.10 RATIOS

See the section 'Main Indicators' in **Annex Ia** for the figures needed for calculating ratios. Give the figures for numerators and denominators. The ratios should then be expressed by taking the numerator as 1.

Table 7.5: Animals available for clinical training (in the clinics of the Faculty or seen through the Ambulatory clinic) as ratio to the number of students in last full year of clinical training

R 11:	no. of students graduating annually ^{a)}	=	$\frac{73}{8}$	=	$\frac{1}{0.11}$	Denominator
	no. of food-producing animals seen at the Faculty ¹⁾					0.11
R 12:	no. of students graduating annually ^{a)}	=	$\frac{73}{604}$	=	$\frac{1}{8.27}$	Denominator
	no. of individual food-animal consultations outside the Faculty ^{2) 3)}					8.27
R 13:	no. of students graduating annually ^{a)}	=	$\frac{73}{90^*}$	=	$\frac{1}{1.23}$	Denominator
	number of herd health visits ^{3), 4)}					1.23
R 14:	no. of students graduating annually ^{a)}	=	$\frac{73}{74}$	=	$\frac{1}{1.01}$	Denominator
	no. of equine cases ¹⁾					1.01
R 14 bis:	no. of students graduating annually ^{a)}	=	$\frac{73}{198}$	=	$\frac{1}{2.71}$	Denominator
	no. of individual equine consultations outside the Faculty ^{2) 3)}					2.71
R 15:	no. of students graduating annually ^{a)}	=	$\frac{73}{12}$	=	$\frac{1}{0.16}$	Denominator
	no. of poultry/rabbit cases ¹⁾					0.16
R 16:	no. of students graduating annually ^{a)}	=	$\frac{73}{3973}$	=	$\frac{1}{54.4}$	Denominator
	no. of companion animals ¹⁾ seen at Faculty					54.4

R 17:	no. of students graduating annually ^{a)}	=	73	=	1	Denominator
	Poultry (flocks)/rabbits (production units) seen ²⁾³⁾		1		0.01	0.01

^{a)}see Annex Ia, 2.2.b; ¹⁾Table 7.3, average; ²⁾Table 7.4, average; ³⁾where applicable use or add information provided in chapter 7.1.8.2; ⁴⁾see 7.1.8.1; (*) the number of herd health visits is lower than the number of outside visits to farms reported in par. 7.1.8.1 since not all visits have a focus on herd health.

Table 7.6: **Animals available for necropsy**

R 18:	no. of students graduating annually	=	$\frac{73}{181}$	=	$\frac{1}{2.48}$	Denominator
	no. necropsies food producing animals + equines					2.48
R 19:	no. of students graduating annually ^{a)}	=	$\frac{73}{152}$	=	$\frac{1}{2.08}$	Denominator
	no. poultry/rabbits ¹⁾					2.08
R 20:	no. of students graduating annually ^{a)}	=	$\frac{73}{140}$	=	$\frac{1}{1.70}$	Denominator
	necropsies companion animals ¹⁾					1.92

^{a)}see Annex I, 2.2.b; ¹⁾Table 7.3, average.

7.1.11 OTHER SPECIES

Indicate how the Faculty deals with fish and other food producing species.

Besides specific training on seafood from the Food Hygiene perspective (see par. 4.1.5), all 2nd year students visit an aquaculture plant during the course of Zoocultures. It is a rainbow trout farm with a yearly production of 2,500 tons of fish, located at 75 km from the Campus (see par. 7.1.3). In 2010, two additional fish farms (trout and cyprinids) have been visited with a group of students involved in the Mobile Clinic work. In this case, the focus was on the activity of Official veterinarians in aquaculture plants.

7.2 COMMENTS

Feel free to comment on all data provided in this Chapter.

Based on (general) compliance with the EAEVE ratios, it can be commented that a sufficient to good number of animals and an adequate amount of teaching material of animal origin are available to students. A great effort has been done by the Faculty to reach the reported numbers and even more efforts will be necessary to maintain them in future years, and improve them where indicated (see also par. 7.3). However, it would not be wise to (simply) run after numbers without assessing, with a quali-quantitative approach, the whole result of

the educational project at our establishment. As anticipated (see par. 7.1.9), individual members of the teaching staff receive contrasting opinions by experienced practitioners about the level of clinical training at the Faculty, and similar contrasting opinions have been explicated by the external members of the examination boards of the State Exam (hopefully not leading to negative marks but in very rare cases). Since the broad philosophy of quality assurance in teaching - that the Faculty is committed to - demands that all important steps be checked with the support of stakeholders, it is a priority for the establishment that a joint official arena with representatives of the different branches of the profession be created to assess with proper tools the quality of the “final product”, in other words the authentic result of the educative project. The favourable experience of the joint working group nominated to detail the list of the desirable Practical Day One Skills (see par. 2.1) is evidence that both parties may profitably have their say and collaborate for the benefit of the students and the profession itself.

The number of food-producing animals seen at Faculty (ratio R11) is clearly below standard. The Faculty is aware of this weakness and countermeasures are in progress (please, see Suggestions in this Chapter).

Comment on major developments in the clinical services, now and in the near future.

It is a matter of fact that running a Mobile Clinic has implied a significant favourable increase of large animal caseload and the possibility for all students (including the ones clearly oriented towards companion animals) to get in touch with the real world of field practitioners. Moreover, the mobility itself of the “Clinic” over the territory has permitted to members of the teaching staff to promote their expertise, contributing to the consolidation of the network of collaborating practitioners and farms. It took some time for the Faculty to become aware that this was the right way to operate, but the results of satisfaction questionnaires by the students (http://veterinaria.campusnet.unito.it/html/laurea_2livello/valutazione_round_clinicamobile_0809.pdf) now support those, amongst the staff, that believed since the beginning in the teaching value of the Mobile Clinic. It will be a priority for the Faculty to assure the necessary resources in the years to come. From this point of view, it is a recent good news (29 June 2010) that an educational project for the undergraduate students, focused on the Mobile Clinic, was deemed worth funding by the Piedmont Regional Government (European Social Fund, objective 2) for a total of 50.000€ In time, (partial) auto-financing of the Mobile Clinic could

also become a possibility, should the advisory services provided to farmers and colleagues be such to justify the reimbursement, by the farmer, of the operational cost of the visit.

The recently run Emergency services are, potentially, another major development of the clinical services provided by the Faculty and a great opportunity for the students to be trained in the management of acute (often) problematic cases. All efforts have been done, in the planning phase, to enroll the necessary personnel and avoid competition with the profession, but only time can tell us if the Emergency services will be educationally sound (viz, leading to a substantial increase of the acute caseload compared with the already existing 24 hours Intensive Care service) and economically sustainable for the Faculty. Again, the feed back by students involved so far in the Large animal emergencies, run since May 2010, is encouraging.

Comment on local conditions or circumstances that might influence the ratios in tables 7.5 and 7.6.

Should the Faculty Kennel manage to solve the organization and “political” problems (mainly the last ones) currently limiting the flow of patients from the animal charities in the surroundings of the Campus (see par. 7.1.9), more basic clinical cases should be available to students in a non-competitive context with the profession. It would be a welcome result, since basic clinical cases in owner-lacking companion animals are the ones permitting the maximum level of hands-on experience by the students.

In the medium to long term, should the Faculty manage to improve the students’ flow, and lead to graduation a larger proportion of the admitted students (please, see par. 9.2), the clinical caseload could become insufficient in some areas.

7.3 SUGGESTIONS

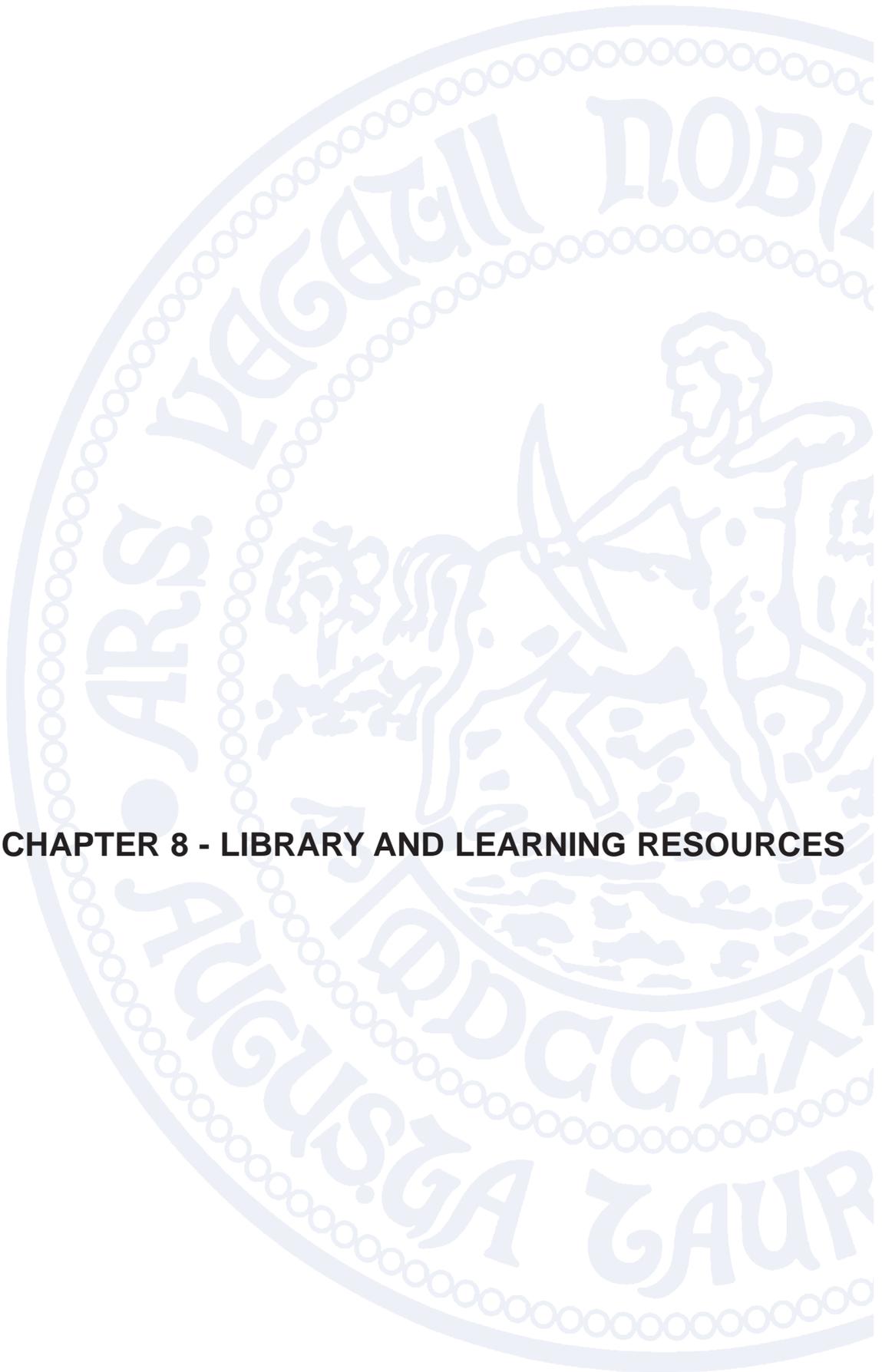
If the denominators in Tables 7.5 and 7.6 for your Faculty are not meeting the range as indicated in Annex I, **Supplement A**, what can be done to improve these ratios?

Since not all denominators in Table 7.5 are meeting the expected values, it is quite obvious that improvement is necessary. In our view, priorities are the following:

- more outside teaching should be offered by the Faculty itself (not simply during the obligatory extramural work period at the ASLs) on matters related to the health management of swines, poultry and (production) rabbits. All students should be

involved. As anticipated in par. 5.1.1, an agreement has been recently signed with a swine farm, according to which students in small groups will have the possibility to practice hands on in a real world context, under the guidance of a hired practitioner. This new activity will be run in the frame of the Mobile Clinic work, starting on October 2010. With the full implementation of the new curriculum, in which additional credits have been recognized to practical training, it will also be easier to find the necessary space and time for the suggested improvement of hands on “clinical” activities focused on poultry and rabbits;

- more equines and, by no means, much more farm animal patients should be managed in house, in particular hospitalized at the VTH. So far, this has not been possible to the desirable level due to a mix of unfavourable legislation, shortage of dedicated staff and, to some extent, limited awareness by the Faculty. A contract with an experienced cattle practitioner has been signed in late 2009, aimed to increase the caseload of in house managed bovine surgical cases. Unfortunately, the temporary unavailability of hospitalization premises (due to delayed completion of refurbishment works) has forcedly implied the fulfilment of the requested activity on outside farms. The contract has been renewed for the next academic year. In the meanwhile, two permanent teaching positions are under debate, the first one for an expert in farm animals’ medicine and the second for an expert in equine medicine and surgery. Finally, there is a project to improve the appeal of the VTH for cattle practitioners operating in the area, through the offer of additional top quality expertise by visiting professors.





The Central Library of the Grugliasco Campus



Chapter 8 - LIBRARY AND LEARNING RESOURCES

Central Library of the Faculties of Agriculture and Veterinary Medicine

8.1 Factual information

The Central Library of the Faculties of Agriculture and Veterinary Medicine (hereafter “Library”) was established in 2003 through the unification of the Central Library of the Faculty of Veterinary Medicine and the Central Library of the Faculty of Agriculture and represents a unique centre of resources available to all of the scientific community of professors, researchers and students currently at the Campus in Grugliasco.

The main body of bibliographic resources is located in the Central Library , although some Departments still maintain small peripheral areas of activity (see ahead, 8.1.8).

The whole body of the bibliographic resources is indexed in the Central Library and is easily available to users.

8.1.1 Library and other information technology services

Give a general description of the library/libraries of the Faculty/university that are available to students. Indicate how the library/libraries are managed (e.g. library committee).

The Library is a part of the University of Torino Library System (SBA = Sistema Bibliotecario di Ateneo), which is linked to the National Library System (SBN = Sistema Bibliotecario Nazionale).

The Library has a Director (a civil servant) and a Library Committee appointing a Coordinator (a teacher). The Director supervises all Library and staff activities, coordinates the public services and drafts the budgets and balance sheet together with the Coordinator of the Library Committee.

The Library Committee is responsible for the coordination and the final check of the cultural and scientific choices on purchasing and services of the Library, taking into due account both teachers and students’ requests. As far as the periodic publications of the Library are concerned, a revision of subscriptions takes place every year; at that time, the Library Committee examines new proposals and reserves the right to add new subscriptions, with particular emphasis of new titles focusing on emerging veterinary or interdisciplinary issues. The same holds also true for books, which may be purchased for either didactic or scientific purposes, in which case they may be stored in the Departmental or subsidiary libraries.

The Library Committee has set up a wealth of Regulations that may be consulted on the Library website.

The Library Committee is made up of 9 members: the Director, the Coordinator of the Library Board, and 5 representatives and experts teachers in the different branches of Veterinary Medicine (Basic Sciences, Animal Production, Clinics, and Food Safety) and 2 representatives of the students. The Library Committee usually meets at least 4 times/year and upon request of at least three members, according to the Regulation in force.

8.1.2 Library staff

There are 8 people (seven of which holding a permanent position) including the Director, working at the Library full time of their normal weekly working hours (36 hours).

The Central Library of the Faculty of Agriculture and Veterinary Medicine also benefits from 3 to 5 students hired as part-time workers to support the main staff activities (the so called "150-oristi", see ahead Chapter 9).

8.1.3 Library website

Since 2007 the Library has a unique (Agricultural and Veterinary Medicine) website regularly updated on behalf of a dedicated webmaster, available to all users

(http://www.unito.it/unitoWAR/appmanager/biblioteche5/G101?_nfpb=true). Through the website users can get all the information about the library (description and history of the building, opening hours, available trials, library regulations, etc) and all the necessary information to consult the catalogue of the library system of the University of Torino, to access to the available resources (e-journals, databank, ...) and to access to some services (e.g. reservation of books, request of document delivery or interlibrary loan, possibility to ask a question to the librarian, ...)

8.1.4 Library resources

The Library receives basic financial support from the University of Torino (see Figure 8.4); other grants from Public Institutions (e.g. Regione Piemonte) have also been obtained in a recent past (a total of € 36896 in 2004-2007, the last tranche of €11653 being used in the current year) and utilized for book restoration.

The acquirement of new books and the order/renewal of journal subscriptions is handled by the Library itself following the scientific advice of the Library Board. As a rule, on an yearly basis, upon specific requests by students and/or the academic staff, the Library Committee devotes a part of the annual budget to the purchase of books and periodicals

or of other electronic media for didactic purposes. The budget for 2007-2009 for was around €57.000 for books and €195.000 for periodicals.

The hard copy resources of the Library amount to approximately 60,000 books and periodicals, with a total of 392 current subscriptions (103 in Veterinary Medicine and 289 in Agriculture), some of them displaying great historical value (Figure 2)

Some 3700 dissertations are available for consulting, of which 981 stored in an electronic format and the remainders available as printed hardcopies.

Since the establishment of the Library, all the resources stored in the central structure, in the two subsidiary libraries and in the other small peripheral structures (see ahead) have been catalogued using the SBN system. As such, all the bibliographic details are available “on-line” for consultation to all users.

Users of the Library have free access to the serials purchased by the Library and also to the e-journals purchased by the Library System of the city of Torino, which has signed a contract with the leading scientific publishers (Elsevier, Springer, Kluwer, American Chemical Society, Wiley, BioMed Central, Institute of Physics Publishing, Kluwer, Nature Publishing Group, Oxford University Press, PAO-Periodical Online, PLoS-Public Library of Science, Project Muse-Scholarly Journals Online, Royal Society of Chemistry, AAAS, Springer, Taylor & Francis, Wiley-Blackwell). Users are also entitled to access CAB abstracts, a world-leading database covering agriculture, animal and veterinary sciences, environmental sciences, human health, food and nutrition, microbiology and parasitology, and plant sciences (over 6 million records from 1973 onwards).

8.1.5 General information, access, reading places, library services, on-line literature search and other electronic resources

The Library serves approximately 2500 students and 200 Professors and Researchers from the Faculty and the Faculty of Agriculture.

The Library is open 5 days/week, on Monday - Thursday from 9.00 to 18.00, and on Friday from 9.00 to 17.00. The Library is closed on weekends, during the central week in August, during the Christmas week and during other national and religious holidays, as per the academic calendar.

The building covers 960 square metres, 530 of which are on the ground floor including offices (technical-administrative management), a large reading room and two newspaper rooms offering a total of 100 reading seats.

The remaining part (440 square meters) is located downstairs, where condensed book stacks are stored and storage rooms for periodicals are available amounting to a total of 1700 linear meters.

Twenty PCs connected to Internet are available in the library for public use to carry out bibliographic research, consult electronic catalogues or to access a wide assortment of electronic resources. These PCs and the software are maintained updated regularly on behalf of specialized technicians.

It is worth noting that the Library is equipped with wireless technologies, which multiply the availability of all the electronic resources. More to the point, authorized users (all students included) can have access from any computer in the Faculty or from home to the electronic resources' portal of the Library System of the University of Torino, regularly updated on behalf of a dedicated webmaster, available to all users. It includes databases, e-magazines, e-books, theses (dissertations), etc. comprising some 1,000,000 titles.

8.1.6 Library Services

A wide array of services are offered by the Library :

- bibliographic information
- consultation of bibliographic materials (books and specialised journals in self-using)
- self-service photocopying of the available materials (whenever permitted by law)
- loans of monographs (except for encyclopaedia, dictionary and dissertations)
- interlibrary loan (locating and requesting loan of books unavailable in this library)
- document delivery (locating and obtaining bibliographic sources unavailable in this library)
- access to CD ROMs and on-line data bases and to all the electronic resources available at UniTO.

For institutional users the access to the University electronic resources is free, as is, also, from computers located outside the University net, through an authentication service called "auth-proxy". However, some of the services are not free, namely photocopies and printed hardcopies of downloaded files.

A lending service is available to the students, with the possibility of renewing loans by phone and reserving books by internet. A total of 5782 loans were issued in the years 2007-2009, the majority of which concerned basic sciences (734) and animal clinics and surgery (1019). In addition, the library is a loan point for the EDISU (a Regional Board for the Right to Study of the University of Torino, see also par. 5.1).

On a yearly basis the Library organizes courses for both PhD and undergraduate students (as a rule to first-year ones) about the strategies of research, the use the Catalogue, the Library System of Torino, the electronic resources and all bibliographic databases available in the net of our University.

8.1.7 On-line services

8.1.7a E-Journals

Library users have access to the electronic journals that have been subscribed by the Library (87 titles, covering both fundamental and applied Veterinary Sciences), or that are available through the UniTO Catalogue, which directs to full text of available publications (about 28,000 periodicals) and integrates different databases of the electronic resources that can be used.

Access to catalogue is possible through all workstations connected directly to the University network or through auth-proxy, which is reserved not only to students, teachers and the technical and administrative staff of the University of Turin, but also to: i) all who have a contract for research or teaching with the University; ii) visiting professors; iii) occasional users admitted to the Library services.

8.1.7.b Integrated Access to Electronic Resources

The service of Metasearch engine offers a single, simple search interface providing a fast access to selected electronic resources (databases, journals, catalogues, digital collections, Web sites). The service is based on the integrated software *Metalib* SFX linking technology and is accessible by all users connecting to the University network.

However, only teachers, students and the technical and administrative staff of UniTO can use the advanced features of the Portal (accessible via authentication) and see the portal from home via identifiable auth-proxy. Available resources are organized in quick sets and categorized by area.

Overall, the resources directly related to veterinary science and agriculture in the SFX database are 1239.

8.1.7.c NILDE

The Library utilizes the software NILDE (Network InterLibrary Document Exchange) for Document delivery and Interlibrary Loans; it allows libraries to send, receive and deal with requests of Document Delivery free of charge, with the advantage to have an immediate registration of all transactions that are carried out in a standard way, representing

therefore a working tool that is being used every day by a large network of university libraries, research institutions, public and local agencies. In the last three years, delivered documents were 2,305.

The software NILDE was created by the Library of the National Research Council (NRC) of Bologna within the project BiblioMIME, which was developed in the years 2000-2002 with the aim to establish a net of technologically advanced services of Document Delivery among libraries, based on transmission through the Internet. A yearly fee of 200 Euros is due for NILDE subscription.

8.1.7.d ACNP (National Catalogue of Periodicals)

Originally developed by the University of Bologna in collaboration with the NRC, the National Catalogue of Periodicals (ACNP) aims at forming a database of national scientific periodicals – available both as hardcopy or as electronic format – which may dialogue with all softwares for Document Delivery using standards ISO-OSI and WC3 and hence with NILDE, yielding very good results. The integration of the two systems is visible both on the ACNP Catalogue and on NILDE. The Library has taken part to the ACNP project since 2000.

8.1.7.e Subito

The Library also uses Subito[®], the brand name of the document delivery service of research libraries in Germany, Austria and Switzerland, providing a quick and easy-to-use service consisting in making copies of articles from periodicals or books and sending them to the user; it also supports the lending of books. All these services are delivered upon the payment of a small fee.

8.1.8 Self-learning resources

Some multimedia resources are available to users for self-learning. Those resources can be requested to the reception of the Library. Among other documents there is a collection of CDs and DVDs of great scientific interest, mainly dealing with animal husbandry and clinics; home-made videos have also been produced, mainly documenting surgical procedures, necropsies or food hygiene issues. A list of available documents may be found on the University of Torino Catalogue.

8.1.8 Subsidiary libraries of the Faculty

Please describe the subsidiary (e.g. Departmental) libraries of the Faculty, and arrangements for student access.

Two Departmental libraries (Veterinary Morphophysiology, and Animal Production, Epidemiology and Ecology) exist in the Veterinary Faculty; as far as the Department of Animal Pathology is concerned, small subsidiary libraries are present in the Units of Pathology, Pharmacology/Toxicology and Food Hygiene respectively, collecting for consultation specialized books and periodicals closely related to the research activities carried out by the single Departments/Divisions. Aside from earlier personal acquisitions, in recent years, most of the collections of specialised bibliographic references stored in such small libraries have been purchased by the Library (see 8.1.1) and archived by means of National Library System, with a budget of around 41000 € in years 2007-2009 .

Indicate whether the main library holds a list of individual books of the subsidiary libraries.

The Library holds the list of books, periodicals and other documents present in the subsidiary libraries and manages book and periodical loans. A large part of the bibliographic collections stored in the Departments can be consulted using the web address : <http://cavour.cilea.it/SebinaOpac/Opac?sysb>.

Describe any other information services and how are they are supported and how student access is regulated.

In all cases, upon request during working hours, subsidiary libraries may be accessed by students, especially those involved in the preparation of their undergraduate or PhD dissertations.

8.2 Comments

Please comment on the adequacy of the books and accessible journals, of the opening hours and of the provision of reading spaces and support personnel.

According to the evaluation published online by Alma Laurea, a consortium of Italian universities which compares data of teaching activities with the level of occupancy, the

large majority of the graduates at the Faculty has expressed a highly positive (50%) or positive (45%) judgement of the library services.

The Library stocks are specialised in Basic and Applied Veterinary Sciences, Food Technology and Hygiene, Agricultural and Animal Productions. In general terms, it can be said that the collection is adequate, thanks to its annual renewal. A minimum of five copies of each title of the basic bibliography is purchased and made available for consultation or loaning (even the interlibrary one).

Similar conclusions in terms of adequacy may be drawn for the periodic publications, covering the main fields of veterinary sciences and being in most cases easily downloadable. Furthermore, there is an efficient Document Delivery Service which locates and retrieves documents not found in the library archives of the University, and which is also active in lending documents upon request by other institutions; requests for copies of scientific papers are usually accomplished in 2-4 working days.

Internet access is easy and adequate, thanks also to the Wi-Fi connection present in the Library. In addition, the Library offers to all authorized users a complete and valuable service to utilize the available databases and e-journals.

With regard to opening hours, it is common knowledge that students are never on Campus on week-ends, aside from very few of them (10-15) which are on duty at the VTH. As noted before, the auth-proxy system enables users to access the Catalogue from home, thereby removing the need to be physically present at the Library.

The number of support personnel is considered adequate. The general financial restraints, however, could lead to a reduction in the number of hired people (students and cooperative librarians).

Please comment on the Faculty's provision of IT-facilities and the approach to self-learning, and on the further developments in this area.

As mentioned before, the Library provides IT-facilities to enable readers to consult the electronic resources, catalogues, and image collections, to make use of word-processing and spreadsheet software, and for general internet and e-mail access. It is anticipated that every effort will be made to increase the number of items (CD, DVD, scannerized atlases, slides, home videos) made available for simultaneous consultation (i.e. stored in the Library's server) so to facilitate self-learning.

8.3 Suggestions

According to the results of a recently administered questionnaire, the large majority of users highly value the Library services (see also 8.2).

Nonetheless, some critical points should be taken into due consideration to improve the overall quality of the services :

- in the last years, due to the financial crisis, the annual budget of the Library has been first frozen and then halved (Figure 8.1). It is reasonable to assume that the quality of services will be negatively affected, should budget shortage persist in the next years. In that case, a general revision of the subscriptions and a parallel improvement of the Document Delivery Service will be mandatory in order to avoid any significant reduction of the budget for purchasing textbooks and other didactic books;
- despite the availability of several copies of most textbooks, this has proven sometimes still not sufficient to meet the students' demands especially for basic sciences (e.g. Biochemistry, Anatomy, Physiology, ecc.) or during the main exam sessions; high priority will be given to this problem by the Library Committee.
- An inventory of all audiovisual learning materials is currently ongoing and a complete list of them will be available soon on the Library website. The general policy aimed at making all audiovisuals freely available to all authorized users (teachers and students) is hampered by the usually high costs of multiple licences for CDs and DVDs. A choice will be made adopting a case by case approach.

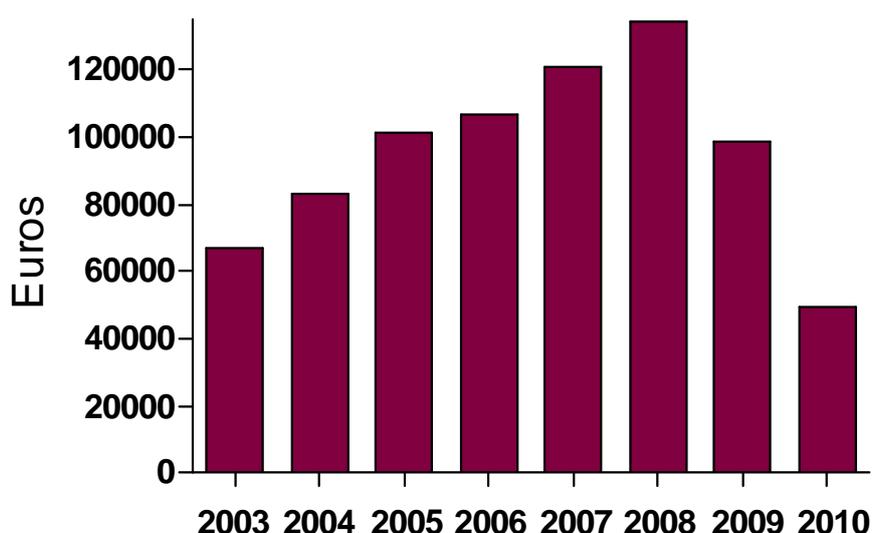
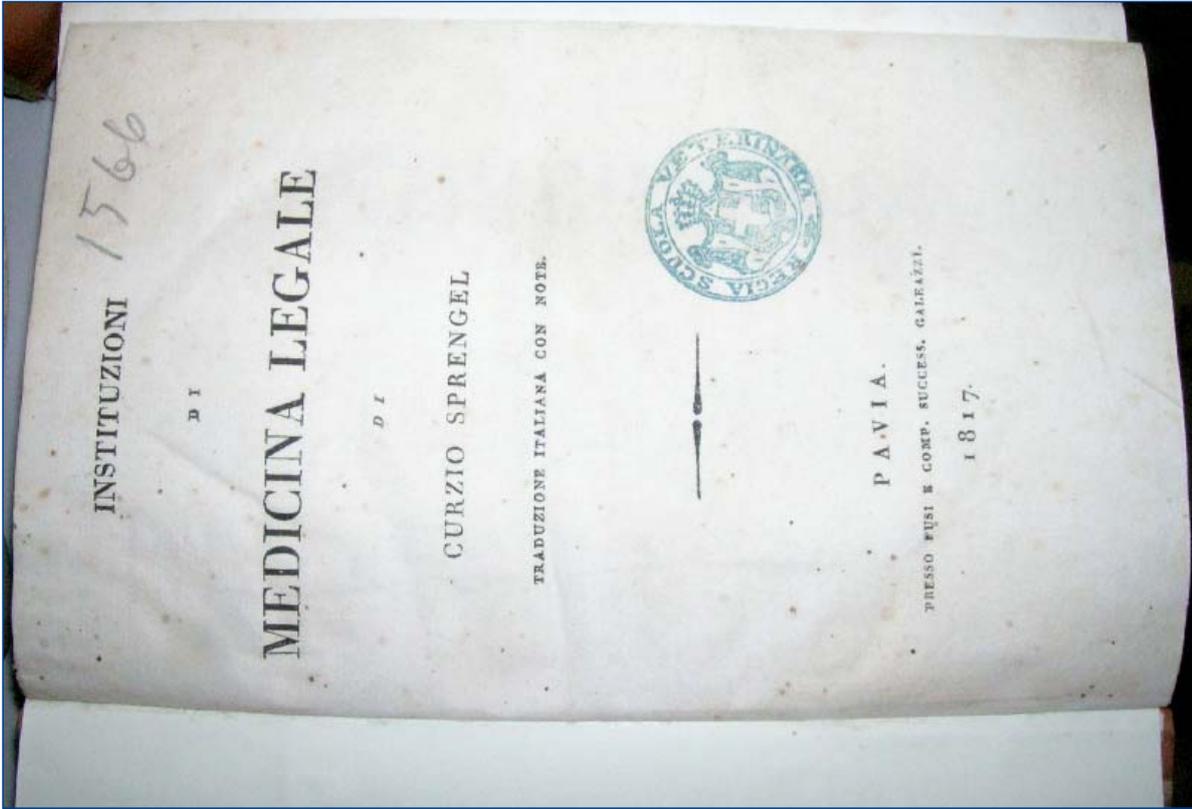
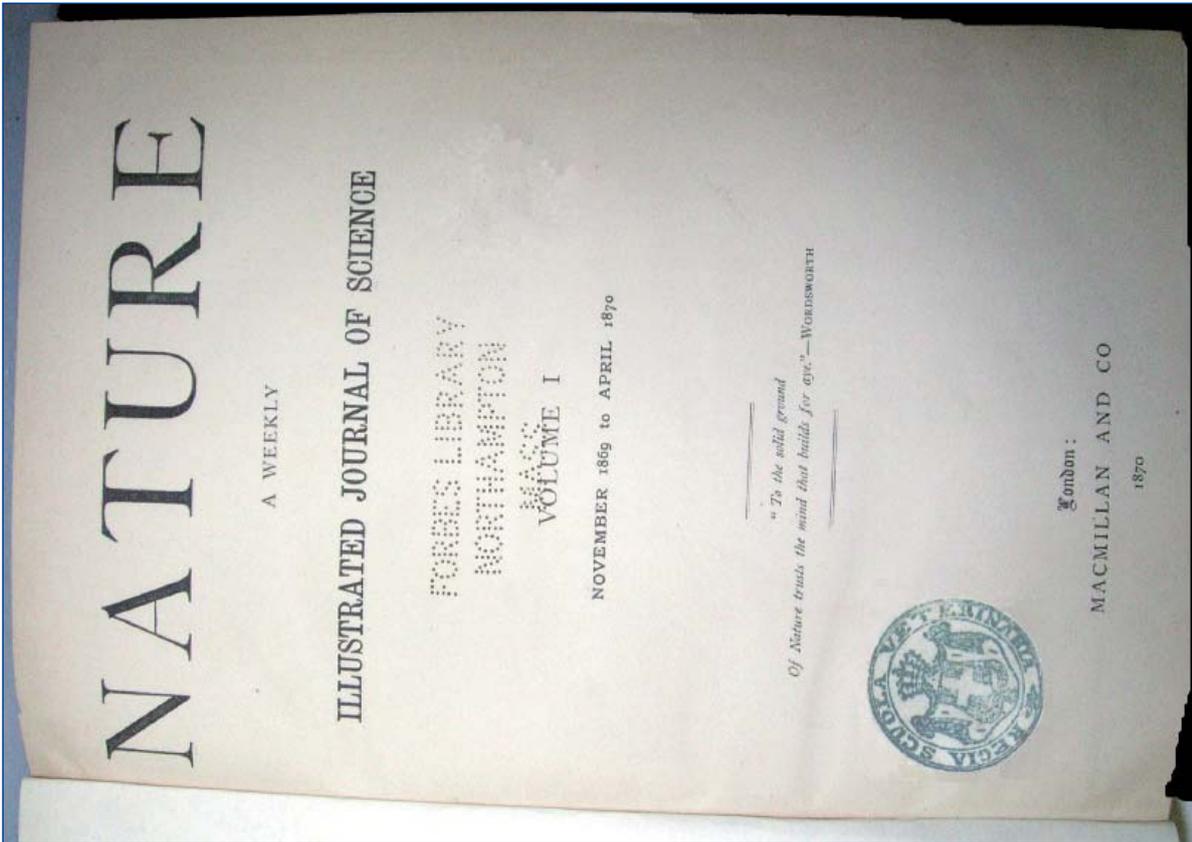
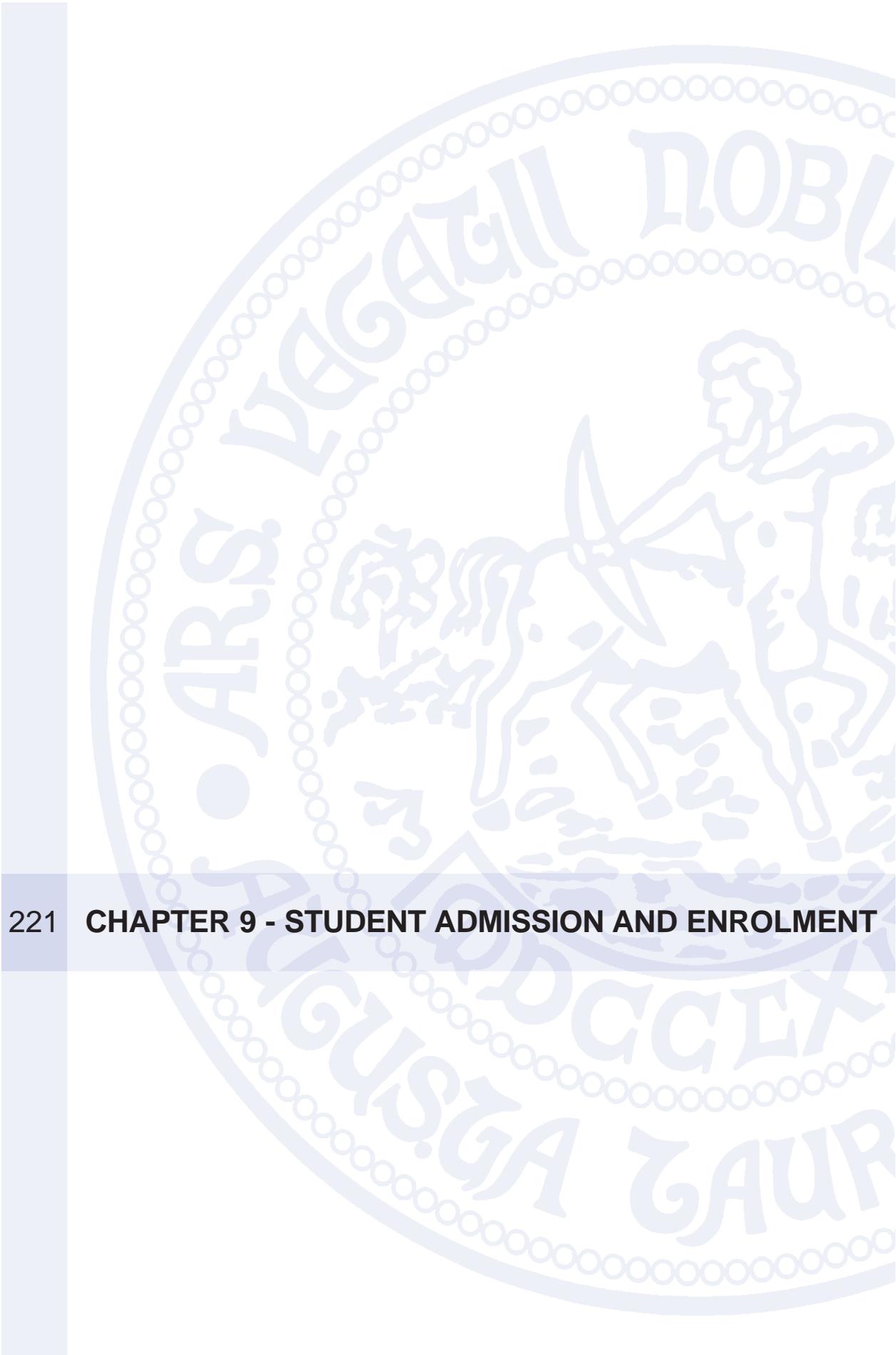


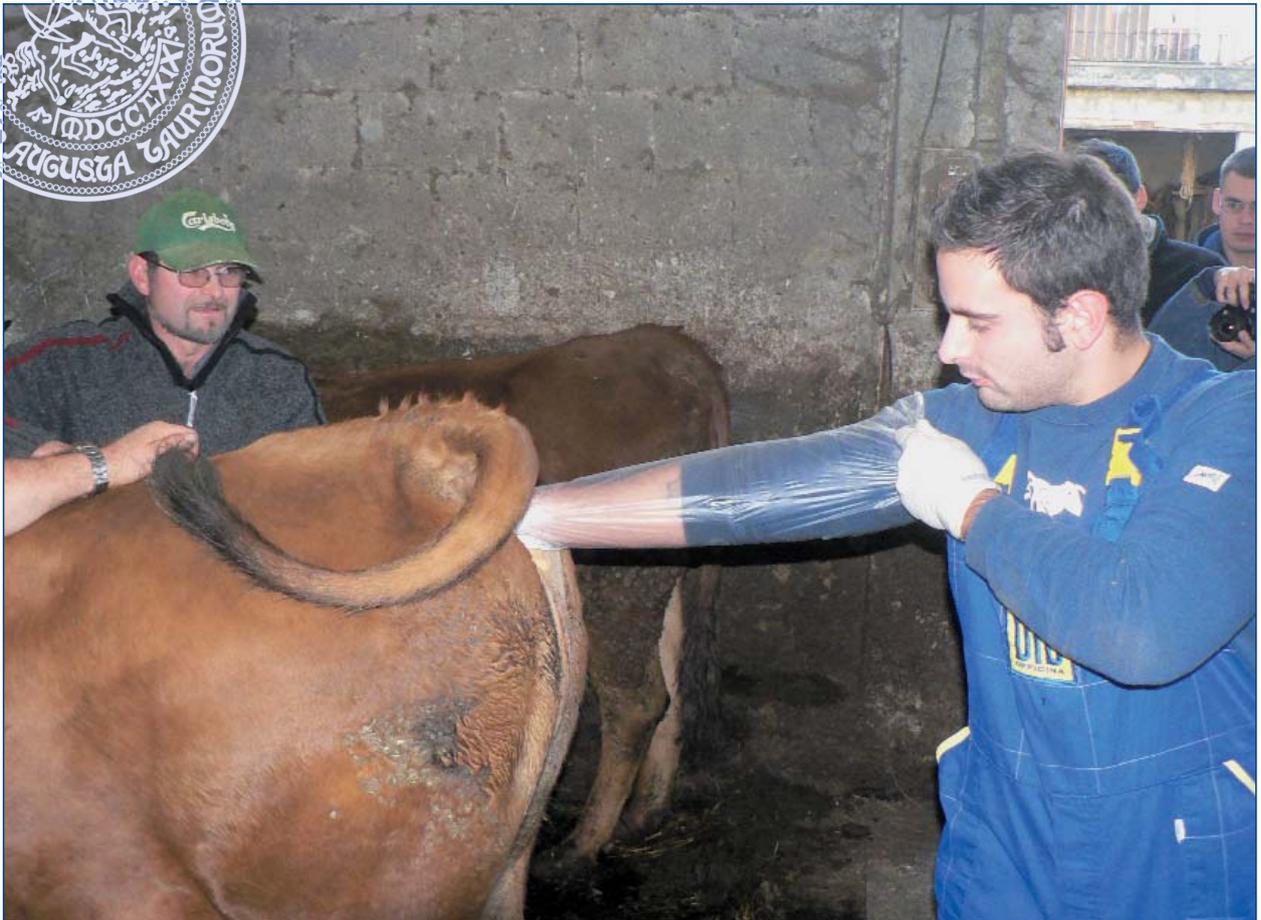
Figure 8.4 – Annual financial support assigned to the Central Library of the Faculty of Agriculture and Veterinary Medicine by the University of Torino.



Ancient books and periodicals at the Central Library



221 **CHAPTER 9 - STUDENT ADMISSION AND ENROLMENT**



Practical of Reproduction with the Mobile Clinic



Chapter 9 – STUDENT ADMISSION AND ENROLMENT

9.1 UNDERGRADUATE COURSES

9.1.1 UNDERGRADUATE STUDENT NUMBERS

Table 9.1 asks for numbers of undergraduate students in the veterinary training institution. This means students enrolled for undergraduate training and paying the corresponding tuition fees (if applicable), except for those students who do not participate in the teaching offered.

Some veterinary curricula require students to successfully complete all courses presented in an academic year before they can start the subjects in the following year. In other establishments students have to complete all the subjects in the curriculum before graduating, but can do so in a more flexible way. In the latter instance, it may be difficult – perhaps impossible – to place some of the students in a specific year of the programme.

If this is so, table 9.1 may: Be omitted, or be an approximate figure, or be calculated by reference to the course of year that corresponds to the largest number of subjects taken.

MNY: 5 years

Noteworthy, a maximum number of years to pass the curriculum does not exist. Students maintain their status through paying the annual fee, even if they are not able to pass any exam. The only limitation is that, after 8 years from the last exam passed, the whole curriculum is erased.

Table 9.1: **Undergraduate student composition in year prior to visitation at the Faculty**

Total number of undergraduate students	735
Total number of male students	215
Total number of female students	520
Foreign students	20
- from EU countries	10
- from non-EU countries	10

9.1.2 STUDENT ADMISSION

State the minimum admission requirements.

To be admitted to the Veterinary Medicine Degree course, a 5-year High School Diploma is required for Italian students. Foreign students (EU and non-EU) have to possess a similar qualification, which must be evaluated by the competent Consular and Academic Authorities according to the multilateral and bilateral European and international conventions.

For clarity, the Italian education system comprises the following stages:

- Primary School: compulsory, lasting 5 years, usually from 6 till 11 years of age;
- Secondary School: compulsory, lasting 3 years, from 11 till 14 years of age;
- High School: non-compulsory, lasting 5 years from 14 till 19 years of age. It has different curricula (i.e.: scientific, classical, linguistic, technical, artistic, etc.). Independently from the curriculum, any student that passes the final high school exam (“Esame di maturità”) can have access to university studies;
- University: to be enrolled in any faculty of Veterinary Medicine in the Country, candidates that possess the High School Diploma have to pass a national admission test.

The admission test is prepared by the competent Ministry and simultaneously administered to all applicants on the same day, at the same hour, in all faculties in the Country. Students are free to choose the faculty where they prefer to apply and, in case of admission, they may enrol exclusively where they have done the test. All the students with any High School Diploma can apply to perform the admission test.

The test consist in 80 MCQs where only one answer out of five is correct. The students have two hours of time to perform the test. In the last admission test (7th September 2009) the questions dealt with the following subjects:

- General knowledge and Critical thinking: 40 MCQs
- Biology: 18 MCQs
- Chemistry: 11 MCQs
- Physics and Mathematics: 11 MCQS.

The scores for each answer are the following:

- exact answer: 1 point;

- wrong answer: minus 0.25 points;
- no answer: 0 points.

The grading of the admission test is performed by the Ministry, and for each faculty the scores with the student ranking are posted within one week. The first 120 ranked (plus a maximum of 10 non EU students) are admitted to the veterinary training. Frequently, a percentage of admitted students do not register (e.g., those that, in the meanwhile, took and passed the admission test for other faculties, like Medicine or Dentistry, and decide to register there). In this case, students ranked below the 120th position are allowed to register, until the total number of 120 is attained. In the last years, the 120th enrolled student had ranked 156th to 202th in the admission test.

The test mainly awards the general knowledge and critical thinking performance, hence also students with very low score in scientific background-oriented questions can be admitted. Non-EU students must also demonstrate a sufficient knowledge of the Italian language.

Indicate whether there is a limit to the number of students admitted each year.

Since 1989, the competent Ministry introduced the limited admission (“*numerus clausus*”) for medical degrees (Medicine, Dentistry and Veterinary Medicine). For each Veterinary Medicine faculty, the number is proposed by the Faculty Board to the University Senate, depending on the available structures, facilities and teaching staff. Precise guidelines on “Minimum Requirements” by the Faculties, elaborated by the competent Ministry, are available (Law 254, 2nd august 1999, art. 1). Finally, the number takes into consideration the suggestions given by the Piedmont Regional Association of the Chambers of Veterinary Surgeons, regarding self-employment and other working opportunities.

After approval, the number is communicated to the competent Ministry, which decides on the proposal (as per national law 264/1999). Due to lobbying by the profession at the national level, the total number of students admitted in the 14 Veterinary Medicine Degree courses offered in the Country has been progressively reduced over the last few years (from 1415 in 2004 to 1110 in 2009). While most faculties suffered a remarkable reduction in the “*numerus clausus*”, the Faculty has maintained in time the yearly admitted number of 120 EU students (109 in 2008 only) plus a maximum of 10 non-EU students. This exception to the general trend in the Country was mainly due to the status of EAEVE approved establishment.

Describe how the number of government-funded student places is determined.

There are no government-funded students. For facilitations and incentives to students offered by UniTO, please see par. 5.1.5.

Outline any selection process (or criteria) used in addition to the minimum admission requirements.

None.

Describe whether students applying for and/or starting veterinary training have an equal or very variable knowledge base in scientific disciplines from their previous studies.

Undoubtedly, students starting veterinary training at the Faculty have not an equal knowledge base in scientific disciplines. As reported above in the paragraph, all students with a High School diploma may apply to the admission test, independently of the High School curriculum attended. Hence, even students with a very poor scientific background may eventually pass the admission test. This risk is a real one, as suggested by the results of the admission test, in which a significant percentage of students which are admitted to the veterinary training fail to answer even the 50% of MCQs dealing with Basic Subjects, Chemistry in particular. For this reason since 2001, according to Decrees n. 509/99 and n. 270/04, the admitted students with a (very) poor scientific background from their previous studies are requested to attend “bridging activities” in Chemistry and Mathematics offered by the Faculty prior to the beginning of the official teaching courses. The decision to support students with such courses was based on a retrospective analysis demonstrating that the deficiency in Chemistry (and to a lesser extent in Mathematics) is the most critical one to successfully overcome the first year. It is reasonable to assume that such variable knowledge is one of the causes of the high drop-off rate of students at the Faculty.

Describe any circumstances under which extra students may be admitted to the undergraduate veterinary course.

Practically, there are no circumstances under which extra students may be admitted to the first year of the undergraduate veterinary course out of the *numerus clausus* fixed each year by the competent Ministry. In the following years, extra students may be admitted only in the rare case of official abandoning by a previously admitted student.

The only exception are foreign students visiting the Faculty in the frame of international exchange programs. In the last three year (2010/2011 is included), annual intake of Erasmus students averaged 15.3 in number. Visiting students originated from the faculties of Oporto, Madrid, Zaragoza, Las Palmas, Leon, Caceres, Murcia, Cordoba, Selcuck, Giessen, Maison Alfort and Brno.

Outline any changes foreseen in the number of students admitted annually. If applicable, describe how the Faculty plans to adjust to these changes.

The Faculty feels comfortable with the current number of students admitted annually. Should more students than now succeed in regularly advancing in their career, current academic staff would eventually become insufficient for adequate training of all students and the Faculty should therefore consider the possibility to decrease the admitted number.

Table 9.2 asks for the numbers of undergraduate students admitted to the Faculty over the last five years. Apart from the 'standard' intake, the Faculty may also be taking in students as transfers from other courses, privately funded students, etc. Please indicate any supplementary intake of this kind in the last column of the table.

Table 9.2: Intake of veterinary students in the past five years

YEAR	NUMBER APPLYING FOR ADMISSION	NUMBER ADMITTED	
		'STANDARD' INTAKE	OTHER ENTRY MODE (DESCRIBE [°])
N*	542	120	1+20
N – 1	472	109	2+13
N – 2	446	120	2+7
N – 3	418	120	2+12
N – 4	406	120	3+9
Average	457	118	14.2 (2 + 12.2)

*year prior to evaluation; ° Non EU foreign students + Incoming Erasmus students (9 months periods)

9.1.3 STUDENT FLOW

Table 9.3 establishes to what extent students make progress in their studies. To this end, we look at the students who were admitted initially and which year they have reached after the MNY has elapsed.

In Italy, university students have historically been classified as “in-course” (who are able to proceed in their career by getting 50-60 credits per year and to graduate in 5 years) and “off-course” (who are not able to pass yearly the exams and have to repeat one year or more). The University Senate has recently abolished the definition of “off-course student”, replacing it with the status of “student repeating the same year”. Such a definition is supposed to be used for those students who register more than one time for the same year. When students succeed and pass to the following year, they will appear again as “in course”. This kind of definition and organization precludes any assessment of the student’s career, because no statistical data are currently available to sub-divide clearly the number of “in-course” and “off-course” students. The only certainty is that, after attempting the 5th year without ending with the graduation exam, students are by no means “off course”. Table 9.3 illustrate the official breakdown for the veterinary students enrolled at the Faculty in the academic year 2009/2010, but – under the fore mentioned circumstances – the table is of very limited use to describe the student flow.

Table 9.3: **Student flow and total number of undergraduate veterinary students**

NUMBER OF STUDENTS PRESENT AFTER ADMITTED YEAR 1		NUMBER OF ADDITIONALLY ADMITTED STUDENTS [°]
1 st year ¹⁾	120	1
2 nd year	100	1
3 rd year	70	2 + 9
4 th year	96	2 + 11
5 th year	108	1
>5th year	241	2
number undergraduate veterinary students	735	9 + 20

¹⁾ mark year matching MNY; [°] Non EU foreign students + Incoming Erasmus students (9 months periods)

Table 9.4: **Number of students graduating annually over the past five years:**

Year	Number graduating
N*	75
N – 1	77
N – 2	69
N – 3	57
N – 4	85
Average	72.6

*year prior to visitation

Table 9.5: **Average duration of studies (distribution of students in years)**

YEARS	NUMBER GRADUATING	%
5	148	45.1
6	82	25.0
7	53	16.2
8	26	7.9
9	9	2.7
10	6	1.8
11	3	0.9
12	1	0.3
TOTAL	328*	100.0

(*) This number corresponds to all student of the “old curriculum” (DM. 509/1999) graduated at the Faculty since the academic year 2005/2006

Based on results reported in Table 9.5, the average duration of veterinary studies at the Faculty (from admission to graduation) is **6.08 years**.

Describe the requirements (in terms of completing subjects and examinations) for progressing to a subsequent year of the course.

Once students have attended courses and obtained the corresponding attendance signatures, there is no mechanism or rule that may limit their progression from a year to the subsequent. The only exception is represented by the elective courses named CIPs and APSs (see par. 4.1.2.1), that students are not allowed to attend if they have not accumulated a minimum of 190 credits.

On a voluntary basis, students that have not completed the exams of a certain year or have not attended several courses, can ask to be enrolled to repeat that specific year. Repeaters are rare or absent in the first year, but their number usually increases from the 3rd to the 5th year.

Describe the academic circumstances under which the Faculty would oblige students to leave the course.

From the practical point of view, there are no circumstances under which the Faculty would or could oblige students to leave the course. This is a general rule of the Italian education system and applies to all public-funded universities.

9.2 COMMENTS

Comment on the ability of the Faculty to satisfactorily decide the number of students it can accept.

So far, the Faculty has been successful in defending the proposed number of students to be admitted to veterinary training. This result has been possible due to compliance to Ministry guidelines on “Minimum requirements” on the one hand, and the status of EAEVE approved establishment on the other hand. Noteworthy, since 2007 all Faculties in the Country have suffered from cuts (sometimes dramatic) in the number of admitted students, in response to lobbying on the competent Ministry by the Federation of Veterinary Chambers (FNOVI). Even more recently a note of the Ministry (prot. 1268; 2 July 2010) has decreed that faculties lacking EAEVE approval or conditional approval by 2013, will not be allowed to admit any new student. Hence, EAEVE approval has become a vital step for all Veterinary faculties in Italy.

Comment on the adequacy of the facilities and teaching program to train the existing number of students.

The premises available at the Campus are proportioned to the needs of a yearly incoming population of 120-130 students. There are 3 lecture rooms with 210-300 places available and 3 more lecture rooms of 100 seats capacity. Teaching laboratories are adequate for groups of 25-40 students and the Campus Library has a 100 seats capacity. Students also can take advantage of a number of study rooms. For further information on facilities at the Campus, please see Chap. 5 and 6.

Comment on the progress made by students in their studies, and the Faculty's ability to ensure that satisfactory progress is maintained.

There are two main features characterizing the student flow at the Faculty:

- the high percentage of drop-offs (students that do not attain graduation at all);
- the short time taken to attain graduation by those students which succeed in reaching this goal.

The first point will be also developed in a later part of par. 9.2. Data collected in the frame of the Internal Quality System indicate that the unsuccessful “third” of admitted students come up against great difficulties since the very beginning of the career. Evidence of this problem is the low number of students successfully sitting for the exams of the Basic Subjects, namely Physics and Statistics (N=63), Chemistry (79) and Animal Biology (98). As an obvious consequence, the veterinary oriented exams (e.g., Anatomy and Physiology) are attended and passed by only a fraction (70.5 and 68%, respectively) of potential students. In our view, this first year bottle-neck is due to a mix of: i) weak knowledge bases in scientific disciplines by several students, a well known and debated national problem; ii) impact with disciplines which are (understandably) felt as very distant from the personal motivations (e.g., a generic “love for animals”) that drove the choice towards veterinary training; iii) in general, impact with an organization of life and study time which is substantially different from any previous experience. It is a matter of fact that, independently of difficulties encountered and the time invested, students successfully passing the initial bottle-neck have a high chance to regularly progress to graduation. As a rule, the infrequent drop-offs occurring at later stages of the students’ career are motivated by personal reasons whose solution is far beyond the intervention perimeter of the Faculty. Under the above illustrated circumstances, the Faculty tried to react with the implementation of “preventive” and “therapeutic” measures, aimed on the one hand to improve awareness by the late students of High Schools, and on the other hand to furnish tutoring and supplemental training in basic subjects for the benefit of truly motivated students. Preventive measures, in charge of the Vice-Dean for Tutoring and Job-placement (see also par. 5.1.5), are in form of: i) meetings to illustrate the peculiarities of the Degree course, as well as the different branches of the veterinary profession with the corresponding job opportunities; ii) annual participation to the “Orienting Exhibition”, involving all UniTO faculties; iii) a self-organized “Open Day Meeting” in springtime, to show the Campus and its activities and clearly explain opportunities and drawbacks of the

Degree course; iv) the offer to 4th year students of High Schools to spend a week in the Faculty premises to get in touch first hand with the activities carried out. On average, 30 students per year join the offer.

Therapeutic measures, which are targeted to already admitted students, are in form of: i) “bridging activities” of Chemistry and Mathematics (with the support of informatic tools for self-learning), which the students with a weak performance in the corresponding MCQs at the admission test are requested to follow; ii) individual and class tutoring by the Faculty Teaching Manager and the teachers of Basic Subjects.

So said, it is quite clear the Faculty will permanently have difficulties to ensure that satisfactory progress is made by all (or most) admitted student until the unsatisfactory selection procedures will remain unchanged (please, see also later in this paragraph).

Comment on the factors that determine the number of students admitted.

The Faculty feels comfortable with the criteria set by the competent Ministry and has no comment on this point.

Comment on the percentage of students that will eventually graduate.

The percentage of student graduated in the last 5 years corresponds to **60.5%** of those enrolled in the same period. This is clearly a low graduation rate, which cannot be justified by the number of admitted students that “physiologically” migrate to other Universities or other UniTO Faculties, mainly Medicine and Dentistry (on average, 14.2 students per year in the last five years). In theory, explanations could be the following: i) the study program is *per se* a difficult one; ii) the study program is (very) badly organized; iii) teachers are (very) demanding; iv) only a part of admitted students (approximately two thirds in this particular case) has adequate capabilities or motivation; v) different mechanism concur to determine the result. The first hypothesis is a reasonable one, and the idea of a certain degree of “natural selection” in veterinary training must be accepted. Notwithstanding, in our opinion it would be unrealistic to assume this as the single operating mechanism. The second hypothesis conflicts with the Quality Assurance in teaching that the Faculty is committed to. Clearly, all complex system are susceptible to improvement but the recent acquisition of the Quality assurance certification according to the standard UNI EN ISO 9001:2008, granted by external evaluators, indicates that a major weakness cannot be at the teaching organization level. The third explanation is frankly unrealistic and conflicts, on

its turn, with: i) the results of satisfaction questionnaires submitted to students; ii) the relatively short time (6 years on average, the shortest time in the Country) that our students take to graduate. The fourth hypothesis must be carefully considered. It was discussed previously that the admission test is unsatisfactory, and poorly veterinary oriented, although the last admission test, held on 7th September 2010 has been modified by the Ministry in the percentage of question for each disciplines by increasing the number of MCQs of Biology (29) and Chemistry (21) and by reducing the number of MCQs in General knowledge and Critical thinking (20) and Physics and Mathematics (10). It was also mentioned that students with a low ranking in the test may be admitted to veterinary training due to renunciation of the best or simply “better” mates attracted by other Degree courses. Finally, it is common experience of teachers that a part of students is poorly receptive to any arguments other than medical care of the individual animal, with an obvious preference for small companion animals. Apart from any personal opinion on the debate whether faculties in the EU must favour tracking or a totipotential educational approach, this limited learning versatility of some students is suggestive *per se* of suboptimal quality. If this analysis is correct, then actions should be taken to improve the performance of already admitted students and, in parallel, to select more properly the future applicants to veterinary training. The first action could imply the promotion of better and differentiated teaching strategies, targeted on “weaker” students since the very beginning of their studies. The remaining actions should aim to modify current selection procedures of the new applicants through lobbying on the competent Ministry, in conjunction with the other medical faculties in the Country (similarly unsatisfied of the selection procedure). Mixed evaluation models based in part on MCQs, but also considering personal motivation traits, seem the best performing in other veterinary training establishments across Europe and overseas, and it is our expectation that the delicate point of admission procedures will be soon reconsidered at the Ministry level.

9.3 SUGGESTIONS

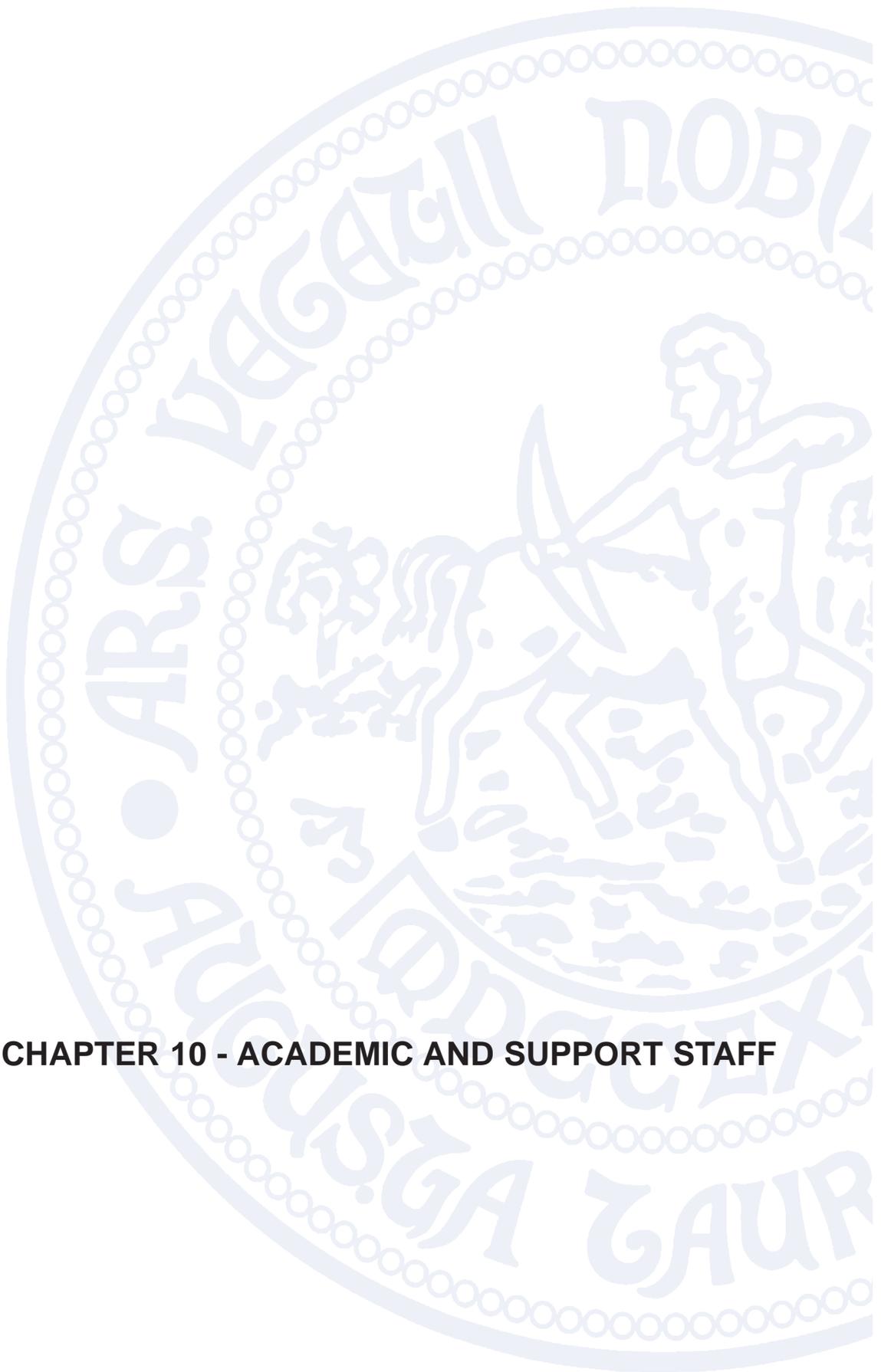
If you are not satisfied with the situation, please state in order of importance any suggestions that you may have concerning this Chapter if you feel unhappy about:

- the number of students admitted
- the drop-out percentage and reasons , if known
- the average duration of studies
- other aspects

As already reported, the mean number of years taken by our students to graduate is 6.09 years. Noteworthy, a satisfying percentage of students is able to reach graduation in MNY (45.1%) or MNY + 1 (an additional 25.0%). This is a much better figure than the one relative to students in other Degree courses at UniTO (26.2% and 31.4%, respectively) or at other Faculties of Veterinary Medicine in the Country (average 7.2 years; <http://www.fnovi.it/index.php?pagina=pubblicazioni>).

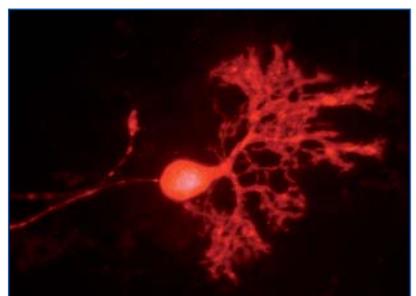
To further improve this situation, it would be necessary to work at one and the same time on students' recruitment procedures and the organization of the Degree course. Unfortunately, the first action is beyond the powers of the Faculty, which may only commit itself to support any lobbying, at the national level, to improve current procedures. As regards the second action, the objective to improve students' flow at the beginning of their career has been taken in due account in the design of the "new" curriculum, currently in phase of implementation at the Faculty. In particular, lecture hours in the first year have been diminished from 540 to 462 (- 14.5%) and the hours of supervised practical training increased from 108 to 167 (+.54%). Moreover, early hands-on exposure to a range of domestic animals and the associated handling and basic veterinary procedures is now offered to students since their first semester. We hope (but it is far too early to make a balance) that this new offer will have a positive impact on maintaining motivation during the most difficult training period in a veterinary student's career.

A further (though unpopular) measure to assure a satisfying progression in studies by less performing new students would be to fix a minimum number of credits to be accumulated before having the possibility to attend the second year courses. Teachers are aware that this measure would imply an immediate separation between students, prompting in the less performing ones the (uncomfortable) sentiment to be "delayed" since the beginning. On the other hand, it is common experience of teachers involved in the following curricular years that adequate performance is very difficult to obtain by those students which must dedicate time and energy to compensate for a difficult start. Probably, in the medium-term to be more strict on this point would represent a great advantage for all students.





Surgical room seen from the top



Chapter 10 – ACADEMIC AND SUPPORT STAFF

Definitions in the SOPs (Annexes I and III) have been taken in due account.

10.1 FACTUAL INFORMATION

The personnel provided for veterinary training is listed in Table 10.1. Allocation of the staff to the Departments and other structures of the Faculty is reported in Table 10.2. Ratios with students are reported in Table 10.3.

For the academic staff providing teaching in Degree courses other than the Master course in Veterinary Medicine, the number of FTE posts has been calculated from the ratio of credits taught in the Veterinary Curriculum versus the total number of credits taught by each individual. Based on this conservative approach, the 91 members of the academic staff based at the Faculty have turned into 65.5 FTEs.

For the non-budgeted personnel, the number of FTE has been calculated taking into account that:

- in public-funded universities in Italy, a professor owes 350 hours of teaching activity per year;
- at the Faculty, there is non-budgeted personnel which is hired exclusively for provision of practical teaching. In this case, though hours annually provided by the individual contractor may be well above 350, only one FTE has been calculated;
- services provided at the VTH are only partially covered by the permanent staff. Annually, the official number of activity hours covered by hired veterinary personnel is 24.016. For the aims of this report, it has been conservatively estimated that only 20% of the activity by the above hired personnel is accountable to training of veterinary students.

Table 10.1: Personnel in the establishment provided for veterinary training

	Budgeted posts (FTE)		Non-budgeted posts (FTE)		Total (FTE)	
	VS	NVS	VS	NVS	VS	NVS
1. Academic staff						
Teaching staff (total FTE)	51.5	2.0	18.5	-	70.0	2.0

Research staff (total FTE)	8.0	4.0	-	-	8.0	4.0
Total FTE	59.5	6.0	18.5	-	78.0	6.0
Total FTE (VS + NVS)	65.5		18.5		84.0	
FTE providing last year teaching	11.7		8.3		20.0	
2. Support staff						
a) Responsible for the care and treatment of animals	11.5		3.6		15.1	
b) responsible for the preparation of practical and clinical teaching.	19.7		3.6		23.3	
c) Responsible for administration, general services, maintenance, etc.	27.5		0.2		27.7	
d) engaged in research work	22.8		3		25.8	
e) others (technicians involved in the clinical routine work of teaching hospital)	6		-		6	
Total support staff	87.5		10.4		97.9	
3. Total staff	153.0		28.9		181.9	

Table 10.2: Allocation of academic (veterinary surgeon and non veterinary surgeon) teaching staff – expressed as FTE – and support staff to the Departments and others structures of the Faculty

DEPARTMENT/ STRUCTURE	ACADEMIC TEACHING STAFF						SUPPORT STAFF (SEE TABLE 10.1)		
	Full prof.		Associate prof.		Assistant prof.		Technical (b + d + e)	Animal carers (a)	Admin. (c)
	VS ¹⁾	NVS ²⁾	VS	NVS	VS	NVS			
<i>Animal Pathology</i>	12		8		22	2	42.1	9.1	9.2
<i>Animal Production, Epidemiology and Ecology</i>	6		6		16	2	7.5	0.5	2.5
<i>Veterinary Morphophysiology</i>	2		2	1	8	3	5.5	1.5	2
<i>Dean's Office</i>									11
<i>Campus Library</i>									3
<i>Teaching and Experimental Farm</i>								4	
TOTAL	20		16	1	46	7	55.1	15.1	27.7

¹⁾veterinary surgeon; ²⁾non veterinary surgeon

Tab. 10.3: Ratios students/staff

Tab. 10.3: Ratios students/staff

R 1:	no. total FTE in veterinary training ³⁾	=	181.9	=	1	Denominator
	no. undergraduate veterinary students ²⁾		735		4.04	4.04
R 2:	no. of total FTE at Faculty ⁴⁾	=	187.9	=	1	Denominator
	no. undergraduate students at Faculty		980		5.21	5.21
R 3:	no. total VS FTE in veterinary training ³⁾	=	78	=	1	Denominator
	no. undergraduate veterinary students ²⁾		735		9.42	9.42
R 4:	no. total VS FTE in veterinary training ³⁾	=	78	=	1	Denominator
	no. students graduating annually		73		0.93	0.93
	no. total FTE academic staff in veterinary training ³⁾	=	84	=	1	Denominator
	no. total FTE support staff in veterinary training ³⁾		97.9		1.16	1.16

¹⁾ applies only to those Faculties, which offer additional courses to the veterinary curriculum,

²⁾ Table 9.3 ³⁾ Table 10.1 ⁴⁾ Table 10.2

Outline how the allocation of staff to the Faculty is determined.

Allocation of the permanent teaching staff to the Faculty follows the resolutions of the University Senate. This body has approved a 8 year (2005-2012) plan - referred to as *Piano Organico*, "Permanent Staff Plan" - to allocate the teaching personnel among Faculties. The number of budgeted posts for each Faculty has been originally assigned by calculating the mean of the values for the corresponding Faculties among 8 Italian Universities of comparable size to that of UniTO. Differences from these theoretical values and the effective staff numbers are progressively corrected by a balancing mechanism as follows:

- for each faculty, a percentage of the total budget of UniTO is assigned on the basis of the theoretical values calculated as above illustrated (3.79% for the Faculty);

- the total budget per year to be allocated by UniTO for hiring new teaching staff in all faculties corresponds to 1/8th of the budget deriving from leaves (retirements, transfers or other) of permanent posts. For regular turnover, 85% of the total budget is returned back to faculties (see below), on the basis of fore mentioned percentage. The remaining 15% is allocated to a reserve fund that can be used, if necessary, for specific interventions after approval of the University Senate;
- each faculty receives back the 85% of the budget deriving from the leaves of its teaching staff and allocated for the regular turnover (therefore, the sum corresponds to approximately 72% of the total amount derived from leaves). The remaining 15% goes to a common fund that is distributed in order to correct imbalances in staff numbers among faculties
- at the end of the process each Faculty receives an annual budget that can be used with a certain degree of freedom to hire new staff. In other words, each faculty can theoretically allocate its budget for posts of Full Professor, Associate Professor and/or Researcher with the following limitations:
 - o the hiring cost is different for each type of position, namely 120,000 € for Full Professors, 90,000 € for Associate Professors, and 60,000 € for Assistant Professors (“Ricercatori”). These are the current costs, updated according to the Senate resolution of Jan 26th, 2009)
 - o recently (DM 180/2008), the competent Ministry (MIUR) has given some limitations to the number of the new permanent positions that can be open in relation to leaves of Full and Associate Professors. To facilitate hiring of young researchers, 60% of the total budget that each university can allocate for new positions must be used for Assistant Professor posts. The remaining 40% can be used for Full and Associate Professors and the support staff.

Therefore, the sum of the requests of each faculty must comply for each type post to the above regulations.

Allocation of support staff (budgeted posts) is given directly to the Faculty only for secretaries and administrators on direct dependence from the Dean’s office. Otherwise, secretaries, administrators and technicians are allocated directly to Departments. Other support staff (e.g., cleaners) is hired by the UniTO in outsourcing. Allocation of support staff to the Faculties is made by the Administration Council of UniTO following specific requests of the Deans.

Outline how the allocation of staff to the departments (or other units) within the Faculty is determined.

Teaching staff is hired primarily by the faculties. According to national regulations, each member of the teaching staff is associated to a specific field of competence (“Settore Scientifico Disciplinare”, acronym SSD). Given that teaching staff also does research, faculty members upon starting their service have to choose a Department where they will be carrying out research. Therefore, the procedure by which the teaching staff is allocated to the Departments is, as a matter of facts, a direct consequence of the allocations of teaching positions at Faculty level. Since teaching and research activities are strictly interconnected, in virtually all instances Faculty members choose to perform their research work in any of the Departments in the area of the Veterinary Sciences.

Allocation of teaching positions in the Faculty is made by the University Senate following the recommendations formally approved by the Faculty Board. An *ad hoc* Committee (Teaching Staff Planning Committee, see also par. 2.1) analyses the Faculty needs and the requests by the SSDs and submit to the Faculty Board proposals for debate and approval. The Teaching Staff Planning Committee is composed by representatives of all SSDs to which Faculty members belong. The Committee operates on the basis of a Staff Plan that was originally approved on May 2000 and is currently in a revision phase (see Comments and Suggestions, later in this Chapter). According to the plan, the ideal number of positions for each SSD has been determined by taking into consideration:

- the total number of teaching hours (Veterinary Curriculum + additional Degree courses provided) per SSD;
- the total number of posts per SSD.

The ratio of these two values was made equal to 82 hours for all SSDs, and thus the total number of posts was calculated for each SSD.

The distribution of the different types of positions for each SSD was determined by assignment of:

- one Full Professor for each SSD with a total number of at least 4 posts;
- an additional Full Professor for each SSD with a total number of at least 7 posts;
- a number of Associate Professors that equals the number of Full Professors plus one;

- A number of Assistant Professors that equals the summed number of posts for Full and Associate Professors.

During the course of these years the Teaching Staff Planning Committee has proposed to the Faculty Board to fill the vacant positions on the basis of these criteria. Since it was deliberated, the Staff Plan has been implemented in the respect of these Faculty internal rules, with minimal deviations according to specific needs. Only recently (October 2009), in order to potentiate the Veterinary Curriculum, the Faculty Board has approved the recommendation of the Teaching Staff Planning Committee to assign 4 Assistant Professor positions by only taking into consideration the number of teaching hours in the Veterinary Curriculum.

Allocation of support staff (budgeted posts) to the Departments is made by the Administration Council of UniTO following the recommendations of an additional consulting body, the Committee for Department Coordination (“Comitato di Coordinamento dei Dipartimenti”). Recommendations are issued on the basis of quantitative parameters such as the departmental annual budget and the ratio of teaching/support staff.

Indicate whether there are difficulties in recruiting or retaining staff.

Difficulties in recruiting for budgeted posts are mainly linked to limitations imposed by budgetary restrictions and/or specific measures adopted at the national government level, since the University budget for personnel comes directly from transfers by MIUR.

The Law 133 of Aug. 6th 2008 has imposed very strong budgetary cuts to Universities. As regards the staff recruitment policy the two following issues are of relevance:

- a progressive reduction in the budget ordinarily assigned to the Universities (FFO – in million €): - 63.5 (2009), - 190 (2010), - 316 (2011), - 417 (2012), -455 (from 2013 onward). Official data and projections for the FFO of the University of Turin give the following figures (in million €): 251 (2007), 261 (2008), 263 (2009), 239 (2010), 216 (2011), 213 (2012). Percent reduction referred to as the FFO 2009 are: -9,1% (2010), -18,1% (2011), -19,1% (2012). Therefore it is reasonable to assume that recruitment will be reduced in the period 2010-2012;
- a maximum of 50% for budgeted staff turnover.

Given that all budgeted posts financed by the Universities are permanent, there are usually no difficulties in covering these positions. Difficulties in retaining teaching staff are

minimal, since there is very little mobility across the Country (in the academia and several other public institutions). The situation is slightly different for support staff, particularly for those people possessing very specific skills (administrators, informatics specialists, etc.) that may find better wages in the private sector.

Describe (if appropriate) any relevant trends or changes in staff levels or the ability to fill vacancies over the past decade.

Table 10.4 reports the numbers of Full, Associate and Assistant Professors in role at the Faculty over the past decade. Data for the period 2000-2009 (at December 31st of each year) have been obtained from the official website of the Italian Ministry for University and Research (MIUR) and include the entire academic staff for both veterinary and non-veterinary training (no influence on trends is expected) . Data for year 2010 take into consideration the ongoing procedures for recruiting 4 Assistant Professors that will be on duty starting from October 1st.

Table 10.4: Numerical changes in teaching staff levels (budgeted posts) over the past decade

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Full Professors	22	24	23	22	21	24	24	22	22	22	20
Associate Professors	26	25	25	24	25	24	21	21	21	17	17
Assistant Professors	35	42	41	40	41	43	47	48	52	50	54
TOTAL	83	91	89	86	87	91	92	91	95	89	91

The same series of data are reported below in graph form (Figure 10.1).

Figure 10.1: **Fluctuations among categories in teaching staff levels (budgeted posts) over the past decade**

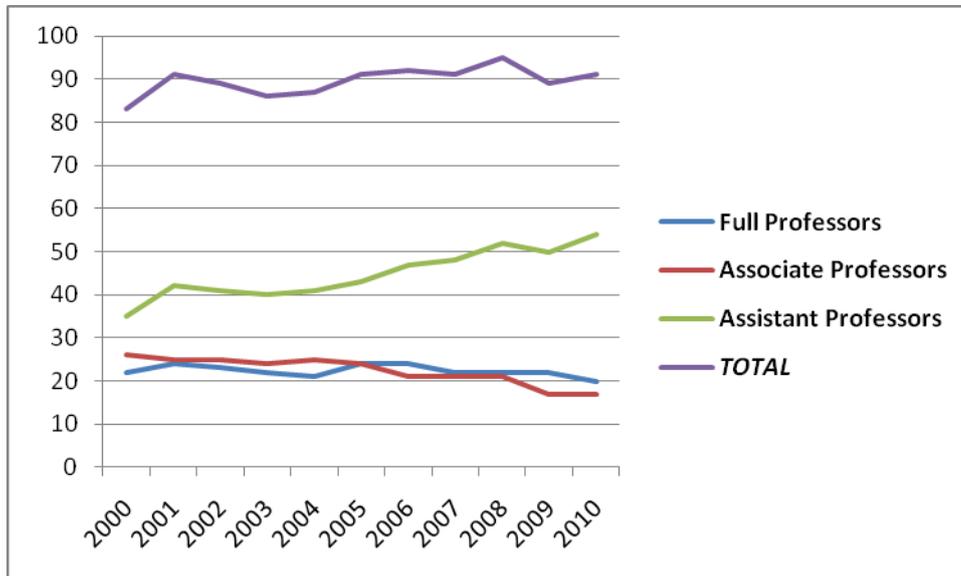


Table 10.5 reports the total number of support staff over the past decade and their distribution in the Faculty structures. Data for the period 2000-2009 (at December 31st of each year) have been obtained from the Personnel Division of UniTO.

Table 10.5: **Numerical changes in support staff levels (budgeted posts) over the past decade.**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Dean's Office + Office for Student Services	8	8	8	8	9	9	9	9	10	11
Dpt. Animal Pathology	22	22	21	22	21	27	28	29	33	34
Dpt. Animal Production, Epidemiology and Ecology	9	8	8	8	7	10	10	10	11	11
Dpt. Vet. Morphophysiology	6	8	8	10	8	9	9	8	8	9
Central Library	3	3	3	4	4	4	4	3	3	3
Teaching and Experimental Farm	3	4	4	4	3	3	3	5	4	4
TOTAL	51	53	52	56	52	62	63	64	69	72

Indicate whether it is easy to employ additional staff from service income (e.g. from revenues of clinical or diagnostic work).

It is possible to hire additional staff from service income deriving from the VTH Hospital (or other sources). Support staff hired from service income consists at present of 7.4 non-budgeted FTE of a to c typologies (see Table 10.1). They represent around 10% of the total support staff in veterinary training.

However, in the Country, hiring procedures have been recently made longer and more difficult since a pre-authorization by the National Agency for Accountability Control (*Corte dei Conti*) is now required for recruiting people on individual contract basis (Deliberazione Corte dei Conti - sezione centrale di controllo n. 24/2009/P del 10/12/2009).

Describe the regulations governing outside work, including consultation and private practice, by staff working at the establishment.

Full time academic staff is not allowed to have another job outside the University, except for occasional consultations, subjected to approval by the academic authorities. Part-time academic staff is allowed to have another job outside the University in public or private institutions. Currently, there are two part-time staff members at the Faculty.

Describe the possibilities and financial provisions for the academic staff to attend scientific meetings and go on a sabbatical leave.

Academic staff is free to attend scientific meetings according to personal schedules. When meetings are held during teaching periods, faculty members usually seek for a substitution/hour exchange with a colleague to avoid interruption of teaching activity.

There are no financial provisions dedicated *ad hoc* to the purpose of attending scientific/educational meetings. Individual researchers use their own research grants to cover expenses.

Sabbatical leaves are differently regulated for Assistant Professors or Associate/Full Professors.

Assistant Professors may ask for a *Study/Research Leave* (Art. 8 Law N. 349/1958) to dedicate to research/teaching activity outside the Faculty. During this period she/he is exempted from teaching activity. Assistant Professors may stay on a single leave for a maximum of 24 months. In a 10 year period leaves cannot exceed 5 years. When on Study/Research Leave, Assistant Professors maintain their stipend unless they have an external source of income exceeding the amount of their wages according to national regulations. Any period spent in Study/Research Leave is considered for career progression exactly in the same way as the internal service at Faculty.

Associate/Full Professors have two different possibilities for sabbatical leaves. They may ask for an *Abroad Research Leave* (Art. 10 Law N. 311/1958) to carry out research/teaching activity abroad for a maximum of 1 year. *Sabbatical leave proper* (Art. 17 DPR N. 382/1980) can be spent in Italy or abroad to exclusively carry on research work. The maximum length in this case is 24 months in a 10 year period.

In both instances, professors maintain their salary unless they have an external source of income exceeding the amount of their wages according to national regulations. Any period spent in Research Leave is considered for career progression exactly in the same way as the internal service at the Faculty.

In all cases a favourable advise by the Faculty Board is requested. The policy of the establishment is to comply with request provided that other staff members of the same SSD of the requesting colleague accept to provided the due teaching in her/his substitution.

10.2 COMMENTS

Comment on the numbers of personnel in the various categories.

Academic staff

In the last decade the total number of positions for the academic staff has increased of about 10%. During the course of these years there have been some fluctuations particularly as a consequence of retirements and blocks of the selections procedures (see Table 10.5). It is worth stressing here that whereas the number of Full Professors has remained virtually unchanged, there has been a significant reduction of the Associate Professors and a very significant increase in the number of Assistant Professors. This has been a consequence not only of the block of recruitment for higher positions that has been imposed by the competent Ministry (MIUR) in the recent past, but of a precise policy of the Faculty aiming to increase the number of academic staff. As a consequence the Faculty of Veterinary Medicine is one of the Faculties of the University of Turin with the lowest mean age of its teaching academic staff.

However, although the Faculty has followed a proper plan for the allocation of teaching staff to the Departments, the distribution of hours among teachers in different SSDs is still quite unequal, mainly as a consequence of significant amounts of hours devoted to teaching in Degree courses other than Veterinary Medicine, and to the difficulties that the Staff Committee is encountering in the design of a new plan more closely related to the present situation (namely to the “new” veterinary curriculum). Inequality in teaching duties in different areas generates some problems in working relations. These are further worsened by the fact that academics enrolled in clinical work may have some shares from the income of the Hospital. Therefore not only teaching loads can be dissimilar but also incomes.

Support staff

In the last decade the total number of positions for the Support staff has increased of about 40%. Still support staff must be increased, especially animal caretakers and personnel supporting practical teaching activities. Additional problems may arise when a member of support staff is off sick (or home for pregnancy/lactation), since there is almost no possibility for substitution by the University.

Comment on the salary levels, especially those of academic staff, in relation to the level of income in the private sector.

Salary levels (approximate gross amounts) of the academic staff are reported below in Table 10.7 (updated January 2008).

Table 10.7: **Salary levels of the academic staff (gross stipend in €)**

Position	Full time	Part time
<i>Assistant Professor</i> (first salary)	38,600	Not applicable
<i>Assistant Professor</i> (after 5-10 years)	47,600-53,000	33,000-38,500
<i>Associate Professor</i> (first salary)	55,200	39,200
<i>Associate Professor</i> (after 5-10 years)	62,200-65,000	43,500-51,000
<i>Full Professor</i> (first salary)	72,850	49,980
<i>Full Professor</i> (after 5-10 years)	82,900-95,000	56,200-64,000

The net salary corresponds to 75-55% of reported figures in parallel with career progression. As approximate mean figures, Assistant Professors are in the role when 30-32 year old, Associate Professors 38-40 and Full Professors 45-48. The gross salary comprises the amount of money that is compulsorily accumulated for pension plan after retirement.

In general, the academic staff salary level is low in comparison to that of their European counterparts, other Italian professionals and officials at comparable career level in the public administrations. On the other hand, current salary levels compare favorably to those of private practitioners (at least according to official data) or those of veterinarians working in companies, except for some chief executives in the

pharmaceutical industry. Being “permanent” staff is authentically appreciated by all categories in the current global crisis of the labour market.

Comment on the ease or difficulty of recruiting and retaining personnel.

Difficulties in recruiting personnel are only related to recurring blocks of selection procedures by central national authorities, since both the academic and the support staff career still have a high degree of appeal among young generations. Since virtually all posts are permanent, there are usually no difficulties in retaining people, unless for certain particular reasons such as the start of a career abroad.

Comment on the percentage of veterinarians in the academic staff.

Veterinarians in the academic staff are 91.2%. 95.4% of the staff in the Department of Animal Pathology, 93.3% in the Department of Animal Production, Epidemiology and Ecology, and 75% in the Department of Veterinary Morphophysiology are veterinarians. Non veterinarians are biologists and/or biotechnologists.

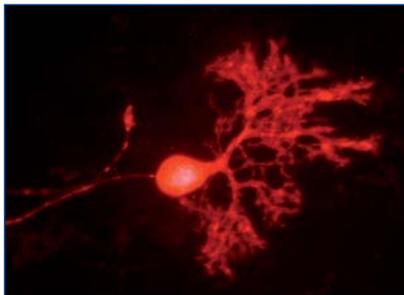
10.3 SUGGESTIONS

Current economic situation at the Country level is not compatible with any request. Should any resource for new staff become available in the next years, priority should be for support staff functional to the provision of services and the preparation of practical and clinical teaching.





The unit for hospitalization, intensive care and emergency cases



Chapter 11 – CONTINUING EDUCATION

11.1 FACTUAL INFORMATION

Please describe the role of the Faculty in providing continuing education.

For the Faculty, continuing education is an important area of activity, aiming to improve scientific knowledge and know-how of public health veterinary professionals, graduated students and practicing veterinarians, while also generating an income.

Since year 2000, Official Veterinarians have to attend continuing education courses called Continuing Medical Education (“Educazione Continua in Medicina”, acronym ECM), with the obligation to acquire at least 50 learning credits per year. The courses are accredited by the Ministry of Health or by the local regional administration (Regione Piemonte), following the request of the Faculty.

These courses are regularly organized and provided by the Faculty itself, or in collaboration with outside organizations and professional associations. A vice-Dean for continuing education (including the Erasmus programme) has been appointed, with the commitment of coordinating the proposals and taking care of the agenda of the courses during the year. ECMs are held at the premises of the Faculty or in outside infrastructures, including the outside locations of the Specialization Schools (see also par, 12.1). The Faculty has signed several agreements with outside professional organizations, associations, institutions and Official Colleges of Veterinarians to organize and administer the courses.

Income from the registrations of the participants is used by the Faculty for ordinary expenditures and for the organization and implementation of other courses.

ECM courses directly organized by the Faculty since 2007 are listed in the following tables 11.1 to 11.4.

Table 11.1 - Courses organised by the Faculty in the year 2007

<i>Date</i>	<i>Title of course</i>	<i>Number of hours</i>
Asti, 15.3.2007	ANIMAL WELFARE DURING TRANSPORTATION	6
Moretta (CN), 16.3.2007	PHARMACOLOGICAL SURVEILLANCE AND VIGILANCE IN THE PIG FARM	4
Moretta (CN), 20.4.2007	COMPARATIVE PATHOLOGY OF ARRHYTHMIAS AND CARDIAC CONDUCTION IN ANIMALS AND MAN	5
Grugliasco (TO), 3-4.5, 10-11.5, 23.5, 7-8.6, 14.6.2007	VETERINARY PATHOLOGY	32
Moretta (CN), 10.5.2007	MANAGEMENT AND CONTROL OF THE QUALITY, AND HYGIENE OF FOODS	24
Cumiana (TO), 11-12.5.2007	THE ROLE OF THE VETERINARIAN AND BIOLOGIST IN THE MANAGEMENT OF EXOTIC ANIMALS	22
Grugliasco (TO), 15.5.2007	PATHOLOGY OF FARMED RABBITS	4
Fossano (CN), 24-25.5.2007	EMERGING ZOOSES	16
Grugliasco (TO), 1.6.2007	PATHOLOGY OF WILD UNGULATES: THEORY AND PRACTICE	5
Riccione (RN), 15-17.6.2007	9TH INTERNATIONAL CONGRESS OF CANINE AND FELINE MEDICINE	14
Grugliasco (TO) 6-7.10, 17-18.11.2007, 12-13.1.2008	CLINICAL MEDICINE AND SURGERY OF EXOTIC ANIMALS	28
Pombia (NO), 16-17.11.2007	ANIMAL VENOMS: FROM POISONOUS SNAKES TO ANTI-VENOMS CENTERS	11
Moretta (CN), 23.11.2007	AUJESZKY'S DISEASE: AN UPDATE	4
Moretta (CN), 14.12.2007	THERAPY AND PROPHYLAXIS IN THE PARTURITION ROOM	4
Grugliasco (TO), 31.12.2007	OBESITY IN THE DOG AND CAT: PATHOLOGY AND NEW THERAPEUTIC APPROACHES	7

Table 11.2 - Courses organised by the Faculty in the year 2008

<i>Date</i>	<i>Title of course</i>	<i>Number of hours</i>
Grugliasco (TO), 2.3.2008	THE OBESITY IN THE DOG AND CAT: A "BIG" PROBLEM	7
Moretta (CN), 7.3.2008	COMPARATIVE PATHOLOGY OF GASTRIC ULCERS	4
Grugliasco (TO), 18.3.2008	DIAGNOSTIC NECROPSY AND PATHOLOGY OF BEEF CATTLE	6
Grugliasco (TO), 27-28.3, 3-4.4, 10-11.4 8-9.5, 15-16.5, 12-13.6	VETERINARY PATHOLOGY	24
Moretta (CN), 11.4.2008	VALORIZATION OF SWINE PRODUCTS IN PIEDMONT	4
Moretta (CN), 9.5.2008	TRICHINELLA AND OTHER PARASITES: PUBLIC HEALTH AT THE INTERFACE BETWEEN DOMESTIC AND WILD ANIMALS	8
Moretta (CN), 6.6.2008	PIG THERAPY, AN UPDATE: ALL WHAT IS NOT AN ANTIBIOTIC	8
Riccione (RN), 13-15.6.2008	10TH INTERNATIONAL CONGRESS OF CANINE AND FELINE MEDICINE	15
Cumiana (TO), 13-14.6.2008	WELFARE OF EXOTIC ANIMALS IN THE ZOOLOGICAL GARDENS	11
Fossano (CN), 17.6.2008	SWINE MANURE MANAGEMENT	7
Grugliasco (TO), 12.9.2008	BLUE TONGUE: HEALTH EMERGENCY AT EUROPEAN LEVEL	6
Cuneo, 2-9-16.10.2008	MASTITIS CONTROL IN CATTLE	17
Asti, 8.11.2008	ZOONOSIS: VETERINARY AND MEDICAL ASPECTS	8
Moretta (CN), 21.11.2008	BIOSECURITY: AN INSTRUMENT FOR THE RENEWAL AND DEVELOPMENT OF PIG FARMING	8

Table 11.3 - Courses organised by the Faculty in the year 2009

<i>Date</i>	<i>Title of course</i>	<i>Number of hours</i>
Moretta (CN), 27.2.2009	IMPROVEMENT OF PRODUCTION IN SWINE FARMING: PCV2 CONTROL AND USE OF NSAIDS IN THE SOW	8
Grugliasco (TO), 9.3.2009	MOSQUITOS: PESTS AND VECTORS OF EMERGING DISEASES: AN UPDATE	6
Moretta (CN), 20.3.2009	COMPARATIVE PATHOLOGY OF LOWER TRACT IN THE SOW	8
Cuneo, 27.3.2009	MANAGEMENT OF CATTLE ABORTION	6
Savigliano (CN), 1-2.4.2009	BIOGAS AND ENERGY PRODUCTION BETWEEN PRESENT AND FUTURE	16
Cuneo, 17.4.2009	PATHOLOGY OF CATTLE FOOT	6
Grugliasco (TO), 18.4.2010	LOWER URINARY TRACT AND PROSTATE: DIAGNOSIS, TREATMENT AND COMPARATIVE ASPECTS	8
Asti, 30.4.2010	THE BIOTECHNOLOGICAL ANIMAL BETWEEN SCIENCE AND ETHICS	6
Grugliasco (TO), 7-8.5, 21-22.5, 4-5.6, 17-18.6, 24-25.9, 1-2.10.2010	VETERINARY PATHOLOGY	24
Asti, 13-14.5.2010	ANIMAL WELFARE IN THE FARM	12
Fossano (CN), 25.5.2010	SEMINARS OF VETERINARY PATHOLOGY IN MEMORY OF PROF. G.C. CRAVERO	12
Moretta (CN), 28.5.2009	SALMONELLOSIS IN ANIMALS: YESTERDAY, TODAY AND TOMORROW	8
Venaria (TO), 29.5.2010	INNOVATIVE BIOTECHNOLOGIES: LEGAL CONSIDERATIONS	6
Cervia (RA), 5-7.6.2009	11TH INTERNATIONAL CONGRESS OF CANINE AND FELINE MEDICINE	14
Moretta (CN), 13.6.2009	SWINE MEAT BETWEEN QUALITY AND HEALTH	7
Venaria (TO), 20.6.2009	ECOGRAPHIC AND DIAGNOSTIC PATHOLOGY OF THE CHEST AND ABDOMEN IN THE HORSE	7
Grugliasco (TO), 26.9.2009	THE MANAGEMENT OF THE AGGRESSIVE DOG: LEGISLATION, VETERINARY MEDICINE AND INSTITUTIONS	7
Fossano (CN), 23.10.2009	HUMAN AND VETERINARY MEDICINE: TOGETHER FOR PUBLIC HEALTH	7
Moretta (CN), 13.11.2009	TYPE A INFLUENZA VIRUS IN VETERINARY AND HUMAN MEDICINE	8
Moretta (CN), 27.11.2009	RESPIRATORY DISEASES IN THE PIG	8

Table 11.4 - Courses organised by the Faculty in the first semester of the year 2010

<i>Date</i>	<i>Title of course</i>	<i>Number of hours</i>
Grugliasco (TO), 23.1.2010	SEMINAR ON ATOPIC DERMATITIS IN THE DOG AND CAT	6
Moretta (CN), 26.2.2010	EMERGING PARASITIC ZOOSES	8
Moretta (CN), 12.3.2010	CARDIOVASCULAR COMPARATIVE PATHOLOGY: GENETIC CARDIAC DISEASES IN MAN AND ANIMALS	8
Moretta (CN), 18.3.2010	WILD UNGULATES IN ITALY: FROM PAUCITY TO ABUNDANCE	8
Grugliasco (TO), 21.3.2010	POST-CONGRESS DAY OF THE EUROPEAN SOCIETY OF VETERINARY ONCOLOGY	7
Bra (CN), 22.4.2010	TICKS, BABESIA AND OTHER PROTOZOANS: EMERGING DISEASES?	6
Moretta (CN), 14.5.2010	SWINE MEAT: TYPICAL PIEDMONTESE PRODUCTS	7
Sommariva (CN), 20.5.2010	MILK, MASTITIS AND ZOOSES	6
Pombia (NO), 21.5.2010	MANAGEMENT AND CLINIC OF PSITTACIDS	6
Grugliasco (TO), 27-28.5.2010	UPDATES AND INNOVATIVE APPROACHES TO BOVINE FERTILITY: CLINICAL ASPECTS, MANAGEMENT AND BIOTECHNOLOGY	16
Grugliasco (TO), 31.5.-4.6.2010	EMBRYO TRANSFER IN CATTLE	40
Grugliasco (TO), 6.6.2010	COURSE FOR DOG TRAINERS	8
Grugliasco (TO), 10-11.6, 24-25.6, 8-9.7, 16-17.9, 23-24.9, 30.9-1.10. 2010	VETERINARY PATHOLOGY	24
Milano Marittima (MI), 11-13.6.2010	12TH INTERNATIONAL CONGRESS OF CANINE AND FELINE MEDICINE	14
Bra (CN), 17.6.2010	PARASITES, CLOSTRIDIA AND NUTRITION: CORRELATIONS, PROPHYLAXIS AND TREATMENTS	6

Indicate the involvement of teaching staff at the establishment involved in continuing education organised by outside organisations

Members of the teaching staff are frequently involved in the organization of continuing education courses provided by veterinary institutions and associations other than the Faculty. The territorial units of the National Health Service (the so called ASLs) and some associations of practitioners are very active in this field and make regular use of selected Faculty teachers to define the scientific programs and contact valuable and appropriate lecturers. Amongst other synergies, the regular collaboration with SCIVAC (Italian Cultural Society for Companion Animals) for organization and provision of courses in veterinary oncology, soft tissue surgery and orthopaedics is worth stressing here.

Furthermore, several teachers are requested as lectures on occasion of continuing education events organized by other veterinary Faculties, institutions and associations in Italy and abroad.

If the establishment is involved in providing distance learning, please outline the nature and the volume of this work

At the moment, no distance learning is offered by the establishment. A programme to develop an internet distance learning is under discussion and development, in collaboration with an outside organisation (Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia). A member of the teaching staff is scientific coordinator of a course in companion animals orthopaedics, provided by SCIVAC (see above) on a regular basis, in which a four month period of distance learning is offered to participants after a four days of theoretical, practical and interactive sessions.

11.2 COMMENTS

Comment on the quality of the continuing education programmes in which the establishment is involved.

The Faculty has recently acquired the Quality assurance certification according to the standard UNI EN ISO 9001:2008, and permanent training is one of the activities comprised in the certification. ECM courses organized by the Faculty are therefore managed according to the procedures defined within the frame of the Quality Management System, and their quality is constantly monitored. The quality of each course provided by the Faculty is assessed through analysis of the evaluation forms filled by participants, in terms of qualification of teachers, choice of topics and quality of infrastructures. Feed back is usually positive, e.g., in the first semester of 2010, the satisfaction index by 508 participants averaged 3.28 in a scale ranging from 1 to 4.

In recent years, the collaboration with outside associations of practitioners and national organizations of public veterinarians has considerably expanded the range of scientific and professional fields covered by the continuing education programmes directly offered by the Faculty.

Comment on the degree of participation of veterinarians in the continuing education programmes in which the establishment is involved.

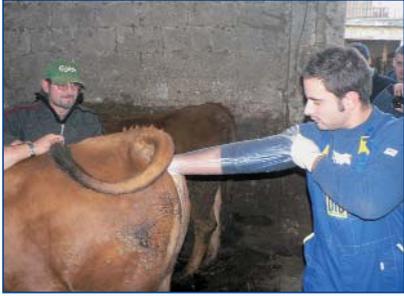
The Faculty enjoys a fairly good reputation as dynamic provider of continuing education events, and the number of colleagues attending them is high, e.g., in the year prior to the visit the registered participants were 1052 (range 7-287).

Colleagues have easy access (via the institutional web page, mailing lists, journals) to information on the organized events.

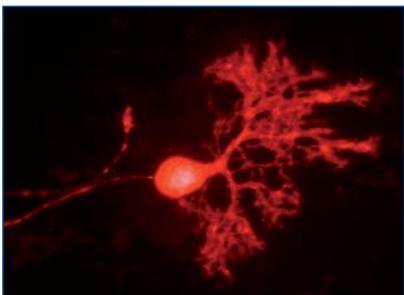
11.3 SUGGESTIONS

Future improvement in the field of continuing education will include co-ordination of the offer with national and local veterinary associations, with the aim to expand the range of courses directly organized by the Faculty. In particular, more attention will be assigned to provision of continuing education events in the field of clinical Veterinary Medicine.





Practical of Propaedeutics at the Teaching and Experimental Farm



Chapter 12 - POSTGRADUATE EDUCATION

12.1 FACTUAL INFORMATION

In recent years, the following postgraduate education programs have been available at the Faculty:

- Resident training in Veterinary Comparative Nutrition (ECVCN)
- Resident training in Small Animal Surgery (ECVS)
- Postgraduate Specialization School in Animal Health, Husbandry and Production
- Postgraduate Specialization School in Inspection of Food of Animal Origin
- Postgraduate Specialization School in Swine Pathology
- PhD School of Veterinary Science
- 2-year Master Course in Ecology and Management of Free-ranging Large Mammals in the Alps
- 1-year Master Course in Cardiology of Dogs and Cats
- 1-year Master Course in Behavioural Medicine of Dogs and Cats
- 1-year Master Course in Equine Rehabilitation
- Research grants (6, 12 or 24 months)
- Post-doctoral (or post-doc equivalent) scholarships

12.1.1 CLINICAL SPECIALTY TRAINING (INTERNS AND RESIDENTS)

Table 12.1.1: Clinical specialty training

CLINICAL DISCIPLINE	N° INTERNS	N° RESIDENTS	DIPLOMA OR TITLE ANTICIPATED
1. Veterinary Surgery	1	1	Diploma of the European College of Veterinary Surgery
2. Animal nutrition	1	1	Diploma of the European College of Veterinary Comparative Nutrition

Indicate whether students involved in this training receive a grant or a salary.

Both students involved in the training program in Veterinary Surgery receive a salary (one of them is already member of the permanent staff). Both students involved in the training program in Animal Nutrition receive a salary (one of them is already member of the permanent staff).

Indicate any programs that are certified by the European Board of Veterinary Specializations.

Both residency programs are certified.

At the Faculty, there are 16 members of the permanent staff which are Diplomats in one the EBVS recognized Veterinary Colleges. They are:

Biolatti Bartolomeo	European College of Veterinary Pathology (ECVP)
Bergero Domenico	European College of Veterinary Comparative Nutrition (ECVCN)
Bollo Enrico	European College of Veterinary Pathology (ECVP)
Buracco Paolo	European College of Veterinary Surgeon (ECVS)
Cagnasso Aurelio	European College of Bovine Health Management (ECBHM)
D'Angelo Antonio	European College of Bovine Health Management (ECBHM) European College of Veterinary Neurology (ECVN)
De Meneghi Daniele	European College of Veterinary Public Health (ECVPH)
Ferroglio Ezio	European College of Veterinary Public Health (ECVPH) European Veterinary Parasitology College (EVPC)
Girardi Carlo	European College of Veterinary Pharmacology & Toxicology (ECVPT)
Mannelli Alessandro	European College of Veterinary Public Health (ECVPH)
Mussa PierPaolo	European College of Veterinary Comparative Nutrition (ECVCN)

Nebbia Carlo	European College of Veterinary Pharmacology & Toxicology (ECVPT)
Re Giovanni	European College of Veterinary Pharmacology & Toxicology (ECVPT)
Rossi Luca	European Veterinary Parasitology College (EVPC)
Rota Ada	European College of Animal Reproduction (ECAR)
Valenza Federico	European College of Veterinary Pathology (ECVP)

12.1.2 RESEARCH EDUCATION PROGRAMMES

Table 12.2: Number of research students enrolled in different programs (*)

TYPE OF DEGREE	FULLTIME	PART TIME	DURATION
PhD	23	10	3-4 years
Other doctoral level	10	-	6 months - 2 years

(*) for more details, see Tables 12.2bis and 12.2ter

PhD programs

Since 2007 (Doctoral Cycles XXIIth to XXVth), PhD programs have been organised in the PhD School of Veterinary Science. The following 4 programs are offered:

- Animal husbandry and Veterinary Public Health
- Veterinary Clinical Sciences
- Host-Pathogen Interactions
- Experimental Sciences and Veterinary Biotechnologies

The School is organised and managed by an *ad hoc* Committee composed of 12 permanent members of the teaching staff with adequate scientific curriculum (authors of research papers traceable on the I.S.I. database in the previous five years).

Admission of candidates to the PhD programs requires a public competition. Public and private-funded positions are available annually. Furthermore, a similar number of students without grants may be enrolled, as per UniTO regulations. The latter group of students are usually working students whose activity is compatible with the achievement of the PhD title.

Once a year, doctoral students are bound to illustrate their activity in a written report and orally, in a public session. An assessment is made by the Committee, based on which students are admitted (or not) to the subsequent year of study. Finally, the Committee ensures that all requirements provided for by the School regulations are met before admitting the student to the final exam awarding the title of Research Doctor (“Dottore di Ricerca”). Main requirements are: i) having spent a training period in a qualified research centre abroad (from 3 to 18 months); ii) having drafted a thesis of adequate standard as regards the consistency and originality of results and the appropriateness of the methodologies used; iii) appear as the first author of an indexed ISI article pertaining to the subject and/or methodologies used in the research project.

Table 12.2bis: Number of students enrolled in the PhD program at the Faculty in the last four years.

	2007	2008	2009	2010
Total number of students	14	16	13	6
Student graduated in Veterinary Medicine	6	10	13	5
University funded grants	5	7	8	4
Grants from other sources	4	2	1	1
Students without grant	4	8	4	1
Foreign Students	1	3	0	1
Students enrolled in September 2010	5	15	12	6
N. of PhD awarded	5	n.a.	n.a.	n.a.

n.a. not applicable

Research grants and Post-doc positions

Research grants are available each year at the Faculty. Candidates are enrolled by public selection based on scientific titles and an interview aiming to evaluate the expertise of the candidate to carry out a specific research program. Duration of post-docs and the majority of research grants is 24 months. Funding is usually provided, via the Departments, by individual members of the academic staff with a financed project. Co-funding may occur by the Italian Ministry of University and Research (MIUR) and the Piedmont Regional Government.

Table 12.2ter: Number of research grants and post-doc positions at the Faculty in the last 10 years

TYPE OF POSITION	NUMBER (2001-2010)	GRADUATED IN VETERINARY MEDICINE	FUNDING BY ACADEMIC STAFF ONLY	CO-FUNDING REGIONAL GOVERNMENT	CO-FUNDING MIUR
6 months Research grants	7	1	6	-	1
12 months research grants	11	6	4	2	5
24 months reseach grants	38	19	4	8	26
Post-doc positions	13	3	-	-	13
TOTAL	69	29	14	10	45

12.1.3 OTHER PROGRAMS

Postgraduate Specialization School in Animal Health, Husbandry and Production

3 year course. The aim of the School is to provide graduates with in depth theoretical background and practical training in the management of animal health matters under farming conditions. The perspective is a balance between production and the associated profit, animal welfare and the defense of public health. The specialist must have acquired adequate knowledge of etiology, pathogenesis, epidemiology, and preventive medicine, together with husbandry techniques, principles of economics, as well as legislation. 70% of the credits are obtained through practical activities. A total of 20 veterinarians are enrolled per cycle. The School is based in Asti, at 60 km from the Campus.

Postgraduate Specialization School in Inspection of Food of Animal Origin

3 year course. The aim of the School is to improve the theoretical, scientific and professional knowledge of graduated in any field related to food inspection and control. The main focus is on hygiene, trade and distribution of food of animal origin, taking into account the wide range of products and processing technologies and systems. A significant part of the course is centred on design and management of control plans, and on risk assessment. A total of 16 students are enrolled per cycle. The School is based in Moretta (CN), at 45 km from the Campus.

Postgraduate Specialization School in Swine Pathology

3 year course, providing (besides lectures, seminars and laboratory activities) a specific on-farm training program, thanks to a network of ten swine farms actively working in

connection with the Faculty. Main objectives are providing specific competences in swine pathology (diagnosis, treatment and prophylaxis of the infectious, parasitic, metabolic and other non-infectious diseases; swine surgery; post-mortem examination at farms and the slaughter line) and swine production (nutrition, pharmacology and pharmacotherapy, husbandry practices, buildings, farm cycling, environmental implications). A total of 97 students have been enrolled in the four cycles provided so far. The School is based in Moretta (CN), at 45 km from the Campus.

A new **Postgraduate Specialization Course in Meat Hygiene and Technology** will start in spring 2011. The aim is to improve the knowledge in animal production, biochemistry and meat quality, animal welfare, meat hygiene and public health, meat processing and technology, meat hygiene and safety regulations. Hands-on training in inspection and hygiene control in slaughterhouses, cutting premises, and processing plants, as well as chemical and biological risk assessment “from farm to fork” will be a significant part of the program (70%). The School will be based in Asti, at 60 km from the Campus.

12.2 COMMENTS

Despite the high number of Diplomats in the permanent teaching staff, residency programs are still low in number. A limiting factor is that European residencies are not included in the public funding programs because the awarded title is not officially recognized in the Country. Hence, grants for interns and residents can only be offered by private sponsors or the establishment itself (e.g., funds deriving from the income of the VTH). A second limiting factor is the poor academic recognition to teachers for the supervision of interns and residents.

A PhD position is relatively poor attractive for graduates in Veterinary Medicine, but in case of strong personal motivation for research and a possible academic career. The main reason is the very poor recognition of the title by the (private and public) labour market. This is a national issue that need to be solved. Public funding of grants for PhD students has considerably decreased in the last year and there is no indication that the trend will be inverted in the next two years (see also par. 1.3).

Post graduate specialization schools at the Faculty are viable and much requested by young graduates, since the awarded title offers the best available opportunity of access to

qualified labour market. Noteworthy, the title is mandatory for application to posts as Official Veterinarian in the National Health Systems.

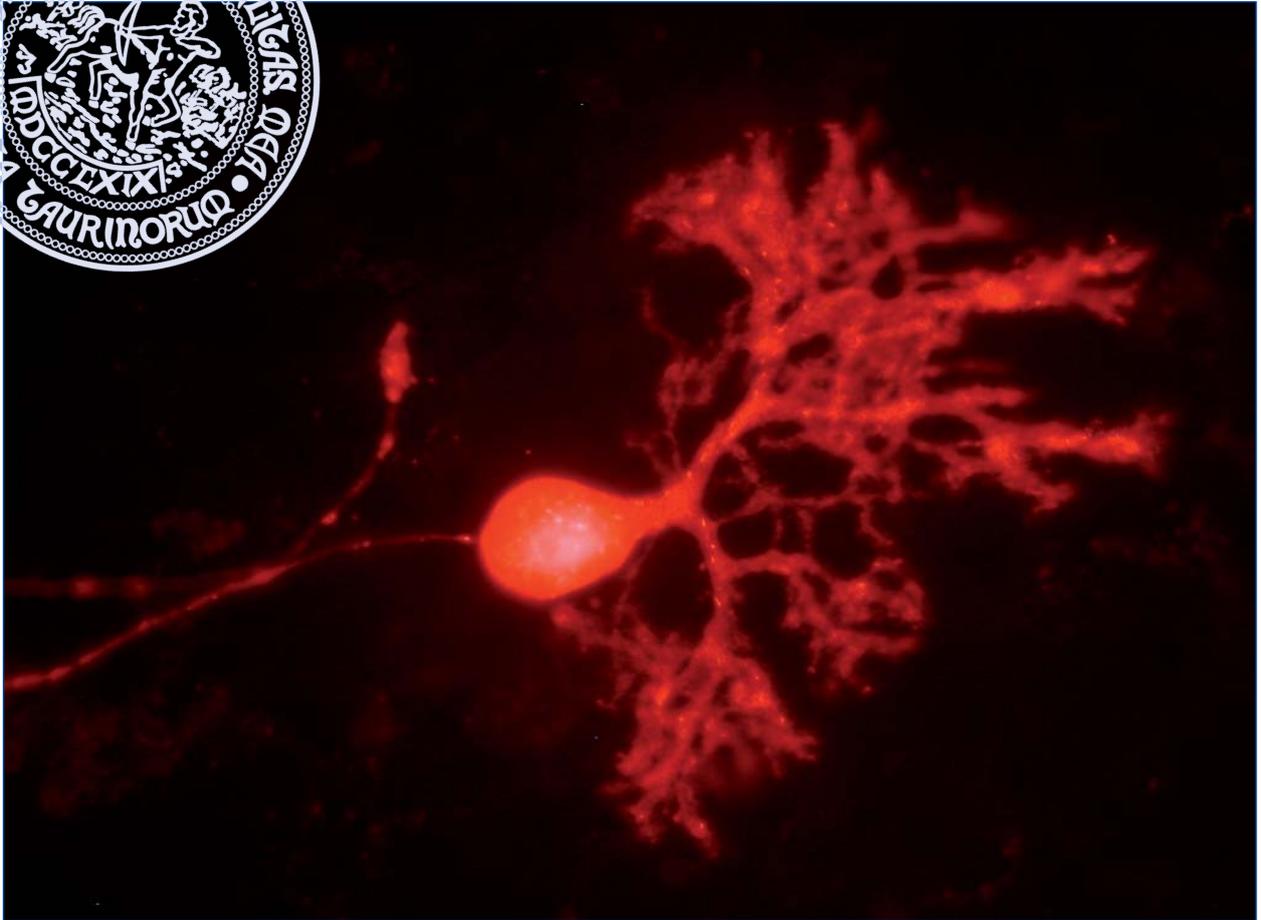
12.3 SUGGESTIONS

The economic situation and the cut of funding by the central government impose new strategies – at the University but also Faculty level - to find alternative funding sources, mainly from private sectors. Amongst other fund raising options, applications to European research funds should be encouraged and facilitated by relieving (as much as possible) the academic staff from excessive bureaucratic tasks, as it is currently the case.

In parallel, actions should be taken at the national level for: i) official recognition of the title of European Diplomat; ii) better recognition of the PhD title on occasion of competitions for non-academic public posts (e.g., in the National Health System or in the national network of Veterinary Diagnostic Laboratories).

Finally, the Faculty should consider the need for better academic recognition of the time invested by tutors to train a postgraduate student involved in a residency or PhD program.





A leading research line at the Faculty



Chapter 13 – RESEARCH

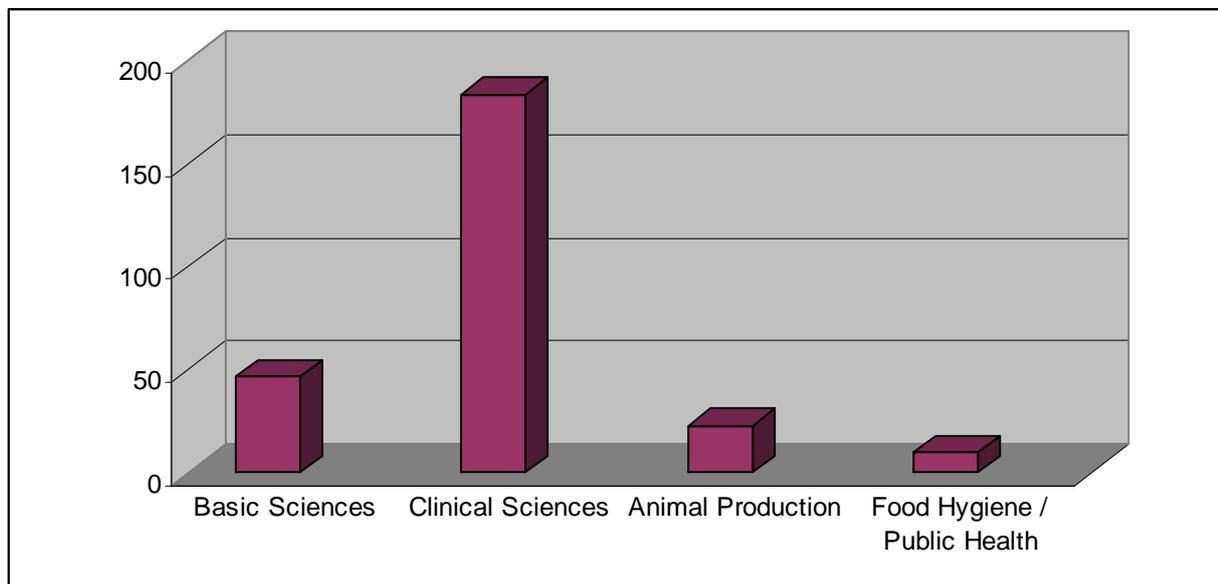
13.1 FACTUAL INFORMATION

Indicate the involvement of undergraduate students in research, including the time spent, percentage of students involved and outcome required.

In Italy, preparing and writing a Dissertation thesis (“tesi di laurea”) under the tutorship of a supervisor (a permanent member of the teaching staff) is mandatory for all students. Presentation and discussion of the thesis before an Examination Board is the final step of any undergraduate student’s career, preliminary to being officially appointed as DVM. The Dissertation thesis may be: i) a review (“tesi compilativa”) that critically summarizes the state of art of any topic relevant to basic or applied Veterinary Sciences; ii) an original experimental work (“tesi sperimentale”). In fact, over 97% (216 of 221) of the Dissertation theses presented over the last 3 years at the Faculty were experimental. Students are invited to select the topic of their thesis between the end of the third year and the beginning of the fourth year. A list of topics suggested by the candidates’ supervisors is available on a dedicated section of the Faculty website. However, direct contact with teachers is preferred by both teachers and students.

According to MD 509/1999-based curriculum (the “old” curriculum, see also par. 4.1), the thesis work officially corresponds to 300 hours (15 credits). Notwithstanding, it is common experience of the supervisors that several students dedicate more time to the intriguing collection and elaboration of experimental data. Figure 13.1 shows the range of topics of experimental Dissertation theses in the past 3 years in the four major areas of EU-listed subjects.

Figure 13.1 – **Distribution per EU-subject area of all experimental Dissertation theses discussed at the Faculty in the last 3 years.**



As anticipated, the work leading to the thesis and its results are evaluated by a committee of eleven members of the teaching staff, including the supervisor. Each member of the board assesses the thesis and its discussion. The average mark resulting from evaluation by each member of the committee adds to the weighted mean of marks received by the candidate for exams and other training activities. Experimental theses are usually awarded higher marks. The very high quality of some experimental theses may be further stressed by an additional comment: “dignità di stampa”, “this work is worthy of publication”.

Very motivated students in their first years (i.e. before the topic of the dissertation has been established) may, on request, be admitted to join selected research units, usually in the Basic Sciences area. As such, they are invited to participate in daily lab activities, journal clubs, laboratory meetings, and seminars. Sometimes they participate in conferences or workshops. On average, four students/year have been admitted in the last three years.

The University of Turin encourages students to commit themselves to excellence inviting students to run for two academic awards, "Premio Optime" and “Medaglia d'Argento”. Departments are invited to name two exceptionally praiseworthy veterinary graduates every year; the names are forwarded to the Rector’s office and to an *ad hoc* committee for comparative selection.

13.2 COMMENTS

Comment on the opportunities for students to participate in active research work

From factual information provided in the preceding paragraph, it is clear that participation of students in active research work is structural, being related to a mandatory segment of the syllabus. Evidence shows that in the last three academic years (but this is a sort of tradition) the vast majority of students makes an option for an experimental thesis, in order to be actively exposed to principles and methods of real scientific research and to be trained to critically assess the originality of the results obtained.

Topics leading to experimental research are allotted as follows: although all major EU-listed subject areas are covered, it is a matter of fact that research work in the Clinical Sciences is by far the most popular amongst students. As a consequence, a significant proportion of students in their final years (71.0 % in the last three years) actually receives additional and qualified (hands-on) clinical training.

13.3 SUGGESTIONS

Will students be given more opportunity to participate in research activities? If so, how will this be done?

Since most students graduating at the Faculty are already involved in research work during the preparation of the thesis, extra participation in research activities at the establishment is not currently amongst the priorities. Moreover, due to heavy workload, students would probably find it difficult to positively consent to such policy.

Nevertheless, in view of motivating the best students to apply for a veterinary-oriented PhD course, more partnerships could be signed with research centres in Italy and abroad to widen the list of sites where student might carry out the so-called elective practical training (APS, see also par. 4.1.1) and obtain the corresponding elective credits.

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