FACULTY OF VETERINARY MEDICINE
Wrocław University of Environmental and Life Sciences
POLAND

SELF EVALUATION REPORT
for
European Association of Establishments for Veterinary Education
Wrocław 2009
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Objectives</td>
</tr>
<tr>
<td>2</td>
<td>Organisation</td>
</tr>
<tr>
<td>3</td>
<td>Finances</td>
</tr>
<tr>
<td>4</td>
<td>Curriculum</td>
</tr>
<tr>
<td>5</td>
<td>Teaching: quality and evaluation</td>
</tr>
<tr>
<td>6</td>
<td>Facilities and equipment</td>
</tr>
<tr>
<td>7</td>
<td>Animals and teaching materials of animal origin</td>
</tr>
<tr>
<td>8</td>
<td>Library and learning resources</td>
</tr>
<tr>
<td>9</td>
<td>Admission and enrolment</td>
</tr>
<tr>
<td>10</td>
<td>Academic and support staff</td>
</tr>
<tr>
<td>11</td>
<td>Continuing education</td>
</tr>
<tr>
<td>12</td>
<td>Postgraduate education</td>
</tr>
<tr>
<td>13</td>
<td>Research</td>
</tr>
</tbody>
</table>
Introduction

HISTORICAL OUTLINE OF THE FACULTY

Faculty of Veterinary Medicine at the Wrocław University of Environmental and Life Sciences (former University of Agriculture in Wrocław, change was made in 2006) is the continuator and descendent of the output and the tradition of Lvov Academy of Veterinary Medicine of the years 1881-1939. It was established in 1945 as a part of the Polish University which was organized at that time by research and teaching staff of from Lvov who came as a result of the expatriation after World War II in order to settle down and continue work.

In time the organization and structure has undergone many changes and restructuring. The biggest change took place in the year 1951 when 5 animal breeding Departments were moved to the newly formed Faculty of Animal Husbandry. In the same time as result the departure of the Faculties of Veterinary Medicine and Agriculture from the University, the Higher School of Agriculture was also founded but the name of it was changed into University of Agriculture in the year 1972.

During over 60 years of the Faculty existence in Wrocław many achievements were accomplished owing to the immense effort and diligence of several generations of faculty staff. At present, Faculty of Veterinary Medicine has 9 Departments, over 1200 students….

In the year 1998 faculty was first time evaluated by the group of EAEVE experts. After changes made according to the suggestion came out after the assessment we were accepted to the “positive list” of EAEVE.
GENERAL INFORMATION

Faculty of Veterinary Medicine is a part of the Wroclaw University of Environmental and Life Sciences (former University of Agriculture in Wroclaw).

University consists of 5 faculties:
- The Faculty of Biology and Animal Science
- The faculty of Environmental Engineering and Geodesy
- The Faculty of Veterinary Medicine
- The Faculty of Agriculture
- The Faculty of Food Science

University in numbers:
1500 employees, including 200 Professors
13.000 students
5 Faculties, 39 Departments and Institutes
18 fields of study, 33 specialities, 34 post-graduate courses
2.000 publications annually
200 research projects annually
over 300 patents
200.000 volumes at the main library

All building and clinics of the faculty are located inside the city and except of Department of Anatomy and Histology are in one academic campus.
Department of Anatomy and Histology is located 3 km away but also inside the city of Wroclaw.

DEGREES

The Agricultural University of Wroclaw is authorized to award the following doctoral and habilitation degrees:

- Doctor of Agricultural Sciences in: agronomy; agricultural engineering; animal husbandry; food technology and nutrition; environmental science,
- Doctor of Veterinary Medicine,
- Doctor of Technical Sciences in: building; geodesy and cartography,
- Doctor of Biological Sciences in: biotechnology,
• Habilitations in: agronomy; agricultural engineering; animal husbandry; food technology and nutrition; environmental science,
• Habilitations in Veterinary Medicine
Chapter I - OBJECTIVES

1. Factual information

Mission of the University:

“The Wroclaw University of Environmental and Life Sciences focuses its wide-ranging activities on education and research covering agriculture and related sciences. The profile of the AUW and its mission are directly involved in transformation programmes dealing with rural development and food quality and management, with full respect paid to social support and interaction. The knowledge acquired and the research projects realized at the University make provision for future development, regarding all aspects of environmentally sustainable development, which is friendly to human and animal welfare.”

The principal tasks of the faculty are education of students, conducting research, preparation of candidates to independent research work as well as education of the people with professional titles in order to broaden general and specialist knowledge. The tasks are also development and popularizing technological progress, cooperation in the practical usage of scientific achievements and care of the health and physical development of students. The University operates on the basis of freedom of scientific research and teaching. The University is also obliged to educate students in a spirit of respect for human rights, patriotism, democracy and responsibility for the social and national fate; to popularize the cult of truth and conscientious work at the atmosphere of mutual kindness in the academic environment as well as to provide the services.

Apart from the general University mission the goals are specified in development plan issued by the faculty council on the basis of a joint discussion process of teaching and research staff, students and supporting staff. Nowadays we are facing the strategic decision that is ought to be made about moving our faculty or part of the faculty outside the city. Limitation of the area and in keeping large animals in the city are the factors that impact on that strategic discussion.

Implementation of Bologna process and changes in our curriculum are also in our mind of. In the academic year 2007/2008 we started English Division study programme for foreigners but also for Polish students (specially formed groups on each year). We would like to develop this English Division study with the benefit for students and for the staff.
2. Comments

Changes are never-ending process. Organization of decision making procedures within the University is not favorable for our faculty. Poland national academic education financial support is one of the poorest in Europe so it is really hard to work and catch the goals in such conditions.
Chapter II – ORGANIZATION

1. Factual information

Name of the establishments:

Wrocław University of Environmental and Life Sciences
ul. C.K. Norwida 25/27
50-375 Wrocław
Poland

Faculty of Veterinary Medicine
Address: ul. C. K. Norwida 31
50-375 Wrocław, POLAND
Tel. +48 71 3205107
Tel/fax: +48 71 3281567
email dziekanat.wmw@up.wroc.pl
www www.up.wroc.pl

University Bodies
The board entities of the University are the Senate and Faculty Councils whereas one person entities are Rector and Deans.
The tenure of one person and boards authorities office starts on the 1st of September of the election year and lasts 4 years (now 2008-2012). Any person with the academic title of professor can became a Rector. Up to four vice-rectors are appointed at the University. Rector determines the number, competences and range of their activities.

Authorities of the University:
Rector – prof. dr hab. Roman Kołacz
Vice-Rectors:
- for International Relations and Regional Cooperation prof. dr hab. Alina Wieliczko
- for Research prof. dr hab. Józef Szlachta
- for Students Affairs and Education prof. dr hab. Józefa Chrzanowska
- for Development and Informatization prof. dr hab. Andrzej Drabiński
Authorities of the University:
Dean of the faculty: prof. dr hab. Jan Twardoń
Vice-Dean for students matters dr hab Krzysztof Kubiak
Vice-Dean for international cooperation dr Robert Karczmarczyk

Faculty Council consists of the following members bearing a decisive vote:
1. Dean as a chairperson
2. Vice-Deans
3. Academic teachers with the professor title or the reader’s degree employed on the faculty
4. Elected representatives of:
   - other academic teachers
   - students
   - doctoral students
   - non-teaching staff

The Faculty Council session (at least once a month) are attended by Trade Union Representatives with advisory voice, one representatives per trade union whose statutory unit operate on the faculty.
Session can be also attended by retired academic teachers with advisory voice formerly employed on the faculty at the professional post.
The Faculty Council is authorized to:
1 determine general majors of the faculty functioning,
2. establish curricula and study syllabi after consulting the faculty assembly of the student government
3. arrange the content-related and financial operation plan and collecting the reports on its realization
4. evaluate Dean’s activity and confirm the dean’s annual report concerning the faculty functioning
5. allow outside teacher to conduct classes (extramural studies) and allow academic teachers without a professor’s title or reader’s degree to conduct lectures
6. award academic degrees in accordance with the possessed entitlements and submit the motions on appointment of professors,
7. pass regulation concerning other matters specified in the Statute and other University regulations or requiring the opinion of the academic community
8 create international cooperation (with acceptance of the Senat).

List of the active commissions working for Faculty Council:
- Finances
- Investments and Repair Activity
- International Cooperation
- Research
- Clinics
- Personnel Rewards and Honours
- Students Affair
- Evaluation of Teaching Staff
- Doctoral Studies
- Equipment and Laboratories

The faculty Council session are called of the Dean’s own initiative or on the motion of at least 1/5 of the faculty Council Members. Council can establishes permanent and seasonal commissions. The bills are passed by an absolute majority of votes at the presence of at least 50% of the entitled voters. The Faculty Council resolution can be appealed against to the Senate.

STRUCTURE OF THE FACULTY
Since academic year 2002/2003 the structure of organizational units of the faculty was decreased in numbers. From 13 existing before to 9 listed below:
- Department of Animal Anatomy and Histology
- Department of Biochemistry, Pharmacology and Toxicology
- Department of Physiology
- Department of Pathological Anatomy, Physiopathology, Microbiology and Forensic Veterinary Medicine
- Department of Food Hygiene and Consumer Health Care
- Department of Epizootiology and Veterinary Administration with Epizootiology Clinic
- Department of Internal and Parasitic Diseases with Clinic of Horses, Dogs and Cats
- Department and Clinic Obstetric, Ruminant Diseases and Animal Health Care
• **Department and Clinic of Surgery**

Decreasing the number of Department was inforced according to the suggestion of EAEVE experts visiting our faculty in 1998. According to our University Statute department can be formed with at least 8 academic teachers including 2 with a title of professor or habilitation.

On faculty there are special units:

a) Flow Cytometry Laboratory  
b) Cell Molecular Laboratory  
c) Chromatographic Laboratory  
d) Semen Quality laboratory  
e) Serologic Laboratory  
f) Centre of Clinical Imaging  
g) Centre of Gastroenterology  
h) Centre of Cardiology

Creating such a units allows to perform scientific work and teach the students modern techniques. These units also offer service for public. Structure of units allow to avoid unnecessary possessing of special scientific equipment and efficient usage of modern equipment.

2. **Comments**

Implemented structural (about Departments) changes have not developed the functioning of the faculty. It is connected with geographical localization of Departments, in which some labs are located in different buildings. Furthermore according to the Statute the unit responsible for finances is the Department. Creation of new department by junction 2 or 3 former ones made increase of bureaucracy and a lot of misunderstanding concerning financial support. Some of the existing departments (i.e. Department of Pathological Anatomy, Physiopathology, Microbiology and Forensic Veterinary Medicine) were formed with former departments which research and teaching areas are not close to each other. Some department has a lot of hour of teaching to carry (strongly over sizing teaching “pensum” - 240 didactic hours) while some have hardly enough.

Veterinary medicine is totally different from any other faculties in our University. But “being one of five” in that field turn as in the weak position. Now there is a big discussion in our University and Senat about remodeling the way of study: no faculties – only departments
and institutes. There is a great danger for our Faculty to be turn into the system that will not work for benefit for students and profession.

3. Suggestions
According to good management standards faculty-department oriented structure must reflect the areas of research and teaching. More independence of smaller units might be a good solution.
Chapter III – FINANCES

1. Factual information

Pursuant to the Act of Higher Education the University receives financial assets from national budget to be allocated for academic teaching, education of the academic staff, research activities necessary for teaching operations and maintenance of the University. The above financial assets received from the Ministry of Higher Education are to a large degree insufficient. In addition University is subsidised by the Committee for Research Projects to carry out statutory activities, teaching its own research and research projects (grants).

Division of assets within the University is made in accordance with resolution of University Senate on the rules of financing the research and teaching units at the Wroclaw University Environmental and Life Sciences.

Pursuant to this Resolution the assets from the Ministry of Higher Education are allocated to maintain:

- the University as a whole – especially for general overhead expenditures, energy, water-sewage service, other service, security of property, purchasing;
- inter-faculty units – Library, Academic Laboratory, Publishing House, Sports Hall, Computer Centre, social and cultural activities of students;
- research teaching units of the University – Faculties

The basis for the division of the budget subsidy and its allocation to individual faculties is an algorithm established by the Ministry of Higher Education which is in force a given year. The algorithm takes into account the level of employment of academic teachers, number of students, number of assistants, cost-absorptive coefficient for the major of a faculty.

The faculty allocates the received amounts for:

- gross remuneration with surcharges (social insurance, wealfare benefit fund) for academic teachers and employees who are not teachers but who conduct teaching activity,
- utilization and repairs of instruments and equipment used in teaching,
- costs of scientific publications,
- costs of student’s practice,
- cost of teaching materials,
- cost of furnishing for the research-teaching unit rooms,
- staff education related costs (research training, doctoral and habilitation scholarships, doctoral studies, education supplementary courses, reviews),
- teaching services performed by other units, i.e. bilateral provision of services by faculties, Sports Centre, Foreign Language Centre, extramural units.

The assets from the Committee for Research Projects received to carry out statutory activities are allocated for:

- gross remuneration with surcharges for engineering and technical staff employment of which exceeded the limit assumed for teaching operations,
- part of gross remuneration with surcharges for academic teachers,
- depreciation of fixed assets utilized in research activities,
- research-work-material-related expenditure,
- covering the part of overheads at the amount of 30% of direct costs.

Financial assets received for the faculty’s own research are allocated for:

- costs of doctoral and habilitation dissertation,
- costs of internal grants,
- costs of other faculty research
- covering the part of overheads at the amount of 15% of direct costs.

Faculty acquires financial means for its activity from various sources to be allocated to various purposes. There are sources of funds available for our Faculty.

Budget funds are spent for the teaching purposes

Funds from Research Committee are spent on statutory research, internal grants, own research and external grants.

Faculty has own source of money coming from registration fees and students who repeat semester or year of the study curriculum.

Another source of income are money paid by regular student who pay for first 6 semesters.

Faculty provides two trucks full time study:

- non-paid
- paid

Candidates who did not enter the standard non-paid list after entry procedure can apply for paid truck.

In the academic year 2008/2009 the semester fee was calculated as 4300 PLN (about 1100 EURO). If the student has good marks after the first year than can apply for transfer to the standard non-paid truck.
Table III.1.2. Cost of veterinary training

Direct cost of training for a diploma (all money devoted to teaching process)

<table>
<thead>
<tr>
<th>year</th>
<th>Costs</th>
<th>PLN</th>
<th>EURO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td></td>
<td>55 000</td>
<td>13 750</td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td>50 000</td>
<td>12 500</td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td>49 000</td>
<td>12 250</td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td>48 000</td>
<td>12 000</td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td>41 000</td>
<td>10 250</td>
</tr>
</tbody>
</table>

Annual cost of training a student

<table>
<thead>
<tr>
<th>year</th>
<th>Costs</th>
<th>PLN</th>
<th>EURO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td></td>
<td>9900</td>
<td>2475</td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td>9000</td>
<td>2250</td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td>8900</td>
<td>2225</td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td>8800</td>
<td>2200</td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td>7500</td>
<td>1875</td>
</tr>
</tbody>
</table>

Table III. 1.1. Average staff salaries netto.

<table>
<thead>
<tr>
<th></th>
<th>PLN</th>
<th>EURO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full professor</td>
<td>4200,00</td>
<td>1050,00</td>
</tr>
<tr>
<td>Associate professor</td>
<td>3800,00</td>
<td>950,00</td>
</tr>
<tr>
<td>Assistant professor</td>
<td>2600,00</td>
<td>650,00</td>
</tr>
<tr>
<td>Senior research assistant</td>
<td>2600,00</td>
<td>650,00</td>
</tr>
<tr>
<td>Research assistant</td>
<td>1700,00</td>
<td>425,00</td>
</tr>
<tr>
<td>Technician</td>
<td>1200,00</td>
<td>425,00</td>
</tr>
<tr>
<td>Animal care taker</td>
<td>1200,00</td>
<td>300,00</td>
</tr>
</tbody>
</table>

Table III.1.2. Annual expenditure of the faculty (calendar year 2008)

<table>
<thead>
<tr>
<th></th>
<th>PLN</th>
<th>EURO</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. personnel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.1. teaching and research staff</td>
<td>8 170 000,00</td>
<td>2 425 000,00</td>
</tr>
<tr>
<td></td>
<td>PLN</td>
<td>EURO</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td>a.2. support staff</td>
<td>2 480 000,00</td>
<td>620 000,00</td>
</tr>
<tr>
<td>b. operating costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.1. utilities</td>
<td>2 600 000,00</td>
<td>650 000,00</td>
</tr>
<tr>
<td>b.2. relating to teaching and research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.3 general operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.1. teaching and research</td>
<td>4 000 000,00</td>
<td>1 000 000,00</td>
</tr>
<tr>
<td>c.2. general equipment</td>
<td>800 000,00</td>
<td>200 000,00</td>
</tr>
<tr>
<td>d. maintenance of buildings</td>
<td>770 000,00</td>
<td>192.500,00</td>
</tr>
<tr>
<td>e. Total expenditures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table III.2.1 Annual revenues of the faculty (calendar year 2008)**

<table>
<thead>
<tr>
<th></th>
<th>PLN</th>
<th>EURO</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Revenue from the State or public authorities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. teaching + research</td>
<td>12 225 000,00</td>
<td>3 056 250,00</td>
</tr>
<tr>
<td>b. other</td>
<td>1 580 000,00</td>
<td>395 000,00</td>
</tr>
<tr>
<td>B. Revenues from private bodies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.a. teaching + research</td>
<td>556 200,00</td>
<td>139 050,00</td>
</tr>
<tr>
<td>b.b. other</td>
<td>412 000,00</td>
<td>103 000,00</td>
</tr>
<tr>
<td>C. Revenue earned and retained by the Faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.a. registration fees from students</td>
<td>1 984 300,00</td>
<td>496 000,00</td>
</tr>
<tr>
<td>c.b. revenues from clinical activities</td>
<td>1 498 200,00</td>
<td>374 550,00</td>
</tr>
<tr>
<td>c.c. other sources</td>
<td>898 00,00</td>
<td>224 500,00</td>
</tr>
</tbody>
</table>

**Changes in funding**

**Revenues from the state for teaching and research**

<table>
<thead>
<tr>
<th>Year</th>
<th>PLN</th>
<th>EURO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>12 225 000,00</td>
<td>3 056 250,00</td>
</tr>
<tr>
<td>Year</td>
<td>Income</td>
<td>Expenditures</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>--------------</td>
</tr>
<tr>
<td>2007</td>
<td>11 158 000,00</td>
<td>2 789 500,00</td>
</tr>
<tr>
<td>2006</td>
<td>10 880 000,00</td>
<td>2 720 000,00</td>
</tr>
<tr>
<td>2005</td>
<td>10 212 000,00</td>
<td>2 553 000,00</td>
</tr>
<tr>
<td>2004</td>
<td>8 604 000,00</td>
<td>2 151 000,00</td>
</tr>
</tbody>
</table>

2. Comments
Without changing of national system of education system in Poland we have almost invisible impact on budget.

3. Suggestions
Better organization of service offered to public should slightly improve financial condition of the Faculty.
Chapter IV – CURRICULUM

1. Factual information

Descriptions of individual courses.

Clinical analytics

Type of the course: f (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 5
Semester: L - (Z - winter, L - summer)
ECTS: 2
Lecturer: prof. dr hab. Józef Nicpoń

Learning outcomes:
Training in knowledge and competences of students in modern medical analytics. Practical interpretation of dog and cat laboratory examination results. Students should be able to deal with special analytic tests.

Competences:
After passing the course the student can make analytical tests and are able to interpret their results.

Prerequisites:
Biochemistry, Internal Diseases, Physiology

Course content:
Glucose loading test, metabolic profiles in cattle, examination of osmotic resistance of erythrocytes, examination of bone marrow, coagulation time, hemorrhage time, cross test, pathological pictures of white blood cells, examination of hair, epithelium, cytological tests, allergic tests and skin pH.

Recommended literature:
Form:
Lectures: 0 hours
Tutorials: 30 hours
Other activities: 0 hours

Assessment:
passing grade of laboratory course (written/oral). Minimum required knowledge for passing: 60%

Pathological anatomy

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 3 and 4
Semester: L -(Z - winter, L - summer)
ECTS: 13
Lecturer: prof. dr hab. Janusz Madej

Learning outcomes:
Students acquire theoretical knowledge of basic pathological changes and their character i.e. retrogressive changes, circulatory disturbances, inflammations and progressive changes, neoplasm and the microscopic differences between those changes. Students understand the specific features of animal diseases in a postmortem examination and students also understand proper postmortem examination technique. Students know the type of pathological changes and can describe their evolution. They know the protection methods used for further diagnostic examinations. Students can investigate and learn what the causes of death were in the instance of animal death.

Competences:
Passing the course permits students to make histopathological diagnostics at an elementary level. After the course students are able to perform autopsy, evaluate lesions, protect material for further examinations and write necropsy protocol.

**Prerequisites:**
Animal anatomy, Histology.

**Course content:**
Cythopathology, circulatory disturbances, retrogressive changes, progressive changes, pathogenesis, immunology and morphology of neoplasm, pathophysiology of inflammation process, classification of inflammation, spreading of inflammation and immunological reaction as a cause of inflammation. The technique for performing postmortem examination, writing necropsy protocol, developmental disturbances, skin pathology, muscles and tendons pathology, skeletal system pathology, cardiovascular system pathology, respiratory system pathology, alimentary system pathology, lymphatic system pathology, urinary system pathology, reproductive system pathology, endocrine system pathology, nervous system pathology, sense organs pathology.

**Recommended literature:**

**Form:**
Lectures: 75 hours
Tutorials: 120 hours
Other activities: 0 hours

**Assessment:**
Obligatory passing course after each term and written examination. Minimum required knowledge for passing: 100%.
Comment:
The subject lasts 3 semesters

Veterinary bacteriology and mycology

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 3
Semester: Z - (Z - winter, L - summer)
ECTS: 6
Lecturer: prof. dr hab. Zdzisław Staroniewicz

Learning outcomes:
During the course a student gets the theoretical knowledge and practical skills necessary to conduct a microbiological examination an elementary level. In particular, a student is able to obtain the material for bacteriologic and mycologic examination, select a suitable medium and perform inoculation. They are also able to use standard laboratory methods (microscopic preparations, biochemical tests, simple serological tests) for bacteria or fungi recognition.

Competences:
Passing the course permits to conduct the bacteriologic and mycologic examinations. After passing the course a student is able to understand why and how bacteria and fungi cause diseases.

Prerequisites:
Biology, Biochemistry, Immunology.

Course content:
Biology of bacteria and fungi, phenomena occurring in the world of micro-organisms, interactions between macro- and micro-organisms, the role of bacteria and fungi in the environment, culture and identification of bacteria and fungi.

Recommended literature:

**Form:**
Lectures: 36 hours
Tutorials: 54 hours
Other activities: 0 hours

**Assessment:**
Obligatory passing grades of laboratory course and oral exam. Minimum required knowledge for passing: at least 60%.

**Comment:**
This subject lasts 2 semesters.

**Avian diseases**

**Type of the course:** o (o - compulsory; f - optional)
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
**Year:** 5
**Semester:** Z - (Z - winter, L - summer)
**ECTS:** 6
**Lecturer:** prof. dr hab. Michał Mazurkiewicz

**Learning outcomes:**
During the course the students get theoretical and practical knowledge of hatching pathology, metabolic disorders at poultry, diseases of parasite, bacterial, fungal and viral origin and their diagnostics and control.

**Competences:**
After passing the course students will be able to evaluate health conditions of poultry, treat poultry, make diagnostic investigations of poultry. Using various diagnostic tools the students are able to suggest for potential diagnose.

**Prerequisites:**
Animal breeding and nutrition, microbiology, pathologic anatomy, pharmacology, veterinary toxicology

**Course content:**
Breeding technology of various bird species, selected problems of bird anatomy and physiology; embryopathology; diseases related to the nutrients’ deficiency, environmental conditions, metabolic disorders; diseases of parasite, bacterial, fungal and viral origin. Moreover, diseases of unknown etiology, the most frequent poisonings in birds, officially controlled diseases, veterinary diagnostics and immunoprophylaxis.

**Recommended literature:**

**Form:**
Lectures: 45 hours
Tutorials: 45 hours
Other activities: 0 hours

**Assessment:**
Completion of laboratory studies and clinical internship, final written or oral exam. Minimum required knowledge for passing: 60%

**Veterinary dietetics**
Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 4
Semester: L - (Z - winter, L - summer)
ECTS: 2
Lecturer: dr Agnieszka Kurosad

Learning outcomes:
Students learn about the nutrition of small animals, animal’s daily requirements for specific nutrients, methods of feeding for healthy and sick animals, kinds of commercial pet-foods and diets. Students know rules for preparing home-made diets according to specific nutritional requirements.

Competences:
After the course students are able to estimate the daily nutritional requirements for healthy and sick animals and prescribe the basics of nutritional treatment according to the present disease. Students are able to choose/suggest adequate commercial diets or give a recipe for the adequate home-made diet.

Prerequisites:
Biochemistry, Physiology, Animal Feeding, Fodder Hygiene

Course content:
Basal range of dogs’ and cats’ nutrition (healthy dogs and cats; different physiological states and also under disease conditions) and introduction into horses feeding. Evaluation of home-made diet recipes and commercial petfood labels.

Recommended literature:
Form:
Lectures: 0 hours
Tutorials: 30 hours
Other activities: 0 hours

Assessment:
Passing grades of laboratory course (min. 60% points from tests)

Exotic animals’ diseases

Type of the course: f (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 5
Semester: L - letni (Z - winter, L - summer)
ECTS: 2
Lecturer: prof. dr hab. Alina Wieliczko

Learning outcomes:
After completing the course students have theoretical and practical knowledge about anatomy, physiology and breeding of exotic animals; know the infectious, deficiency and environmental diseases in exotic animals. Students are able to provide clinical and anatomo-pathological examination and obtain material for laboratory examinations. Students know also the rules of therapy and are able to use them in individual cases, as well as apply the basic surgical treatment. The students are familiar with the veterinary administration rules for exotic animals.

Competences:
Students are able to handle, diagnose and treat exotic animals.

Prerequisites:
Veterinary diagnostic techniques, animal husbandry, animal nutrition, veterinary microbiology, virology and parasitology, pharmacology, immunology and poultry diseases.

Course content:
Biology and breeding of exotic animals (reptiles, birds, small mammals). Diseases of exotic animals, rules of therapy, prophylaxis programs for each species, techniques of clinical and anatomicopathologic examination, taking samples for laboratory diagnostics, administrating drugs and basic surgery techniques.

Recommended literature:

Form:
Lectures: 0 hours
Tutorials: 24 hours
Other activities: 6 hours

Assessment:
Obligatory passing grades of laboratory course and written exam. Minimum required knowledge for passing: 60%

Clinical pharmacology of dogs and cats

Type of the course: f(o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 5
Semester: Z - (Z - winter, L - summer)
ECTS: 2
Lecturer: prof. dr hab. Marcin Świtała

Learning outcomes:
During the course the student attains a theoretical knowledge on how to conduct rational pharmacotherapy in dogs and cats. Students are able to apply the proper drugs in the treatment of specific diseases in dogs and cats according to all legal aspects.

Competences:
After passing the course, students are able to select safe and effective drugs for treated animals. They are able to calculate doses, know indications and contraindications, modes of application and side effects of drugs.

Prerequisites:
Pharmacology, Clinical Diagnostics

Course content:
The principles of rational drug therapy in dogs and cats by emphasizing topics such as the role of pharmacokinetics in the design of dosing regiments, drug monitoring and individualisation of drug therapy, drug interactions, side effects, diseases and drugs which can influence therapeutic effect.

Recommended literature:

Form:
Lectures: 6 hours
Tutorials: 24 hours
Other activities: 0 hours

Assessment:
Obligatory passing grades of course – Minimum required knowledge for passing: at least 65%
Veterinary genetics

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 2
Semester: L - (Z - winter, L - summer)
ECTS: 3
Lecturer: prof. dr hab. Barbara Kosowska

Learning outcomes:
Students understand basic mechanisms, rules and tasks of classical, molecular genetics as well as cytogenetic, immunogenetic and genetic alternation, defects and diseases of genetic origin.

Competences:
After the course students are able to explain genetic alternations and diagnose animal diseases that are of a genetic origin.

Prerequisites:
Chemistry, Cell biology, Biochemistry.

Course content:
Basics of general and molecular genetics, introduction to population and quantitative genetic features. Animals diseases of genetic origin.

Recommended literature:

Form:
Lectures: 21 hours
Tutorials: 4 hours
Other activities: 20 hours

**Assessment:**
Test exam, minimum 70% of knowledge to pass.

**Food and food processing hygiene**

**Type of the course:** o (o - compulsory; f - optional)
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
**Year:** 5 i 6
**Semester:** Z - (Z - winter, L - summer)
**ECTS:** 8
**Lecturer:** prof. dr hab. Jerzy Molenda

**Learning outcomes:**
After passing the course, students have practical and theoretical knowledge about the technological processes connected with food technology. Students can also determine hygiene rules which are obligatory in food plants and solve food microbiology problems.

**Competences:**
After passing the course, students will be able to examine foods, identify food hazards, and evaluate sanitary conditions at food plants.

**Prerequisites:**
Animal anatomy and physiology, biochemistry, microbiology, food law

**Course content:**
Basic problems connected with technological food processes, technology of animal origin food production, good manufacturing and hygiene practice in food plants, risk analysis in food, methodology of veterinary inspection and veterinary surveillance.

**Recommended literature:**

**Form:**
Lectures: 45 hours  
Tutorials: 55 hours  
Other activities: 20 hours

**Assessment:**
Oral exam- minimum required knowledge for passing: 60%.

**Comment:**
This subject lasts 3 semesters. There is possibility to have classes in English. Field study in meat processing plants.

**Fur-covered animals’ diseases**

**Type of the course:** o (o - compulsory; f - optional)  
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)  
**Year:** 6  
**Semester: Z - (Z - winter, L - summer)**  
**ECTS:** 2  
**Lecturer: dr Tomasz Piasecki**

**Learning outcomes:**
During the course student gets a theoretical knowledge and practical skills permitting to prepare prophylaxis programs and to treatment fur-coverd animals (breeding and husbandry).
At the end of the course the student will gain knowledge of breeding fur-covered animals; will be able to do clinical and anatomopathological examination and take material for laboratory testing; will know rules of therapy and be able to use them in individual cases.

**Competences:**
Passing the course permits working with fur-covered animals on farms or in animals’ hospitals.

**Prerequisites:**
Veterinary Diagnostic Techniques, Veterinary Microbiology, Veterinary Virusology, Pharmacology

**Course content:**
Biology and breeding of fur-covered animals (foxes, minks, ferrets, rabbits, chinchillas). Diseases of fur-covered animals, rules of therapy, prophylaxis programs’ for each species, techniques of clinical examination, taking samples for laboratory testing and administering drugs. Specifics of antibiotic therapy in herbivorous fur-covered animals.

**Recommended literature:**

**Form:**
Lectures: 15 hours
Tutorials: 15 hours
Other activities: 0 hours

**Assessment:**
Final test; minimum required knowledge- 60%.

**Veterinary administration**
Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 6
Semester: Z - (Z - winter, L - summer)
ECTS: 4
Lecturer: dr Andrzej Rudy

Learning outcomes:
At the end of the course the students are able to use Polish and European legislative acts in veterinary medicine, particularly in aspects of eradication of infectious diseases in all animal species

Competences:
After passing the course students are able to analyse legislative acts, make independent interpretation and use them in veterinary practise.

Prerequisites:
Epizootiology, Infectious diseases

Course content:
Code of Administrative Procedures, Code of Executive Procedures, Veterinary Legislation, Acts and regulations of ministry, EU laws and directives

Recommended literature:

Form:
Lectures: 30 hours
Tutorials: 30 hours
Other activities: 0 hours
Assessment:
Passing grade of practice, written-oral exam

Topographical anatomy

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 2
Semester: L - (Z - winter, L - summer)
ECTS: 3
Lecturer: prof. dr hab. Norbert Pospieszny

Learning outcomes:
The aim of the animal anatomy course is to increase the student’s knowledge about the spatial structure, and the stratigraphy of concretionary determined body parts and regions within the localization of particular organs in relation to clinical sciences, the hygiene of raw materials and food processing demands.

Competences:
After passing the course students are able to describe the anatomic position of organs and the placement of anatomic structures in regions of the body of domestic mammals.

Prerequisites:
Animal anatomy, histology, embryology, physiology, biochemistry.

Course content:
Stratigraphy, internal organs, neural system, vascular system, lymph nodes projection on common integument. Skeletotomy, syntopy and holotopy.

Recommended literature:

Form:
Lectures: 15 hours
Tutorials: 30 hours
Other activities: 0 hours

Assessment:
Obligatory passing grades of laboratory course after semester, written/ oral exam. Minimum required knowledge for passing - 100%.

Animal anatomy

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 1 i 2
Semester: Z - (Z - winter, L - summer)
ECTS: 15
Lecturer: prof. dr hab. Norbert Pospieszny

Learning outcomes:
During the course students learn theoretical knowledge and practical skills about the macroscopic structure of an animals body in prenatal and postnatal period.

Competences:
Passing the animal anatomy course, the students are be able to recognize organs and to attribute them to the correct species. Student can describe the anatomy of organs. Students acquire knowledge needed for further qualification in veterinary medicine.

Prerequisites:
Biology, histology, embryology, physiology, biochemistry
Course content:
Osteology, myology, arthrology, angiology, neurobiology, widespread splanchnology, central and peripheral neural systems, skin and its derivatives, bird anatomy, etc. The macroscopic build of animal organism in prenatal and postnatal period.

Recommended literature:

Form:
Lectures: 75 hours
Tutorials: 150 hours
Other activities: 0 hours

Assessment:
Obligatory passing grades of laboratory course (100%), oral, test and practical exam after semester 3.

Comment:
This subject lasts 3 semesters.

Andrology and artificial insemination

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 5
Semester: L. - (Z - winter, L - summer)
ECTS: 4
Lecturer: prof. dr hab. Andrzej Dubiel
Learning outcomes:
Learning outcomes: during the course student gets the knowledge of disturbances of fertility in males of domestic animals, collection and preservation of semen and methods of artificial insemination.

Competences:
After passing the course students are able to treat disturbances of fertility of domestic animals. They know methods of artificial insemination.

Prerequisites:
Pharmacology, Biochemistry, Physiology, Physiopathology, Anatomy and Pathological Anatomy.

Course content:
Endogenous and exogenous disturbances of fertility in domestic males. Methods of semen collection and examination, preservation of semen at low temperatures. Methods of artificial insemination in cows, mares, pigs, sheep, goats, does, dogs and deer.

Recommended literature:

Form:
Lectures: 20 hours
Tutorials: 40 hours
Other activities: 0 hours

Assessment:
Obligatory passing grades of laboratory course and oral exam. Minimum required knowledge for passing: at least 70%.

Biochemistry

**Type of the course:** o (o - compulsory; f - optional)
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
**Year:** 1 i 2
**Semester:** L - (Z - winter, L - summer)
**ECTS:** 10
**Lecturer:** prof. dr hab. Maciej Ugorski

**Learning outcomes:**
At the end of the course the student will know the chemical structure of basic compounds, their catalytic and regulatory functions, and their mechanisms of the energy and information transfer. The course provides some practical training in basic laboratory procedures, and also the knowledge and terminology necessary for understanding molecular biology, physiology, genetics, microbiology etc.

**Competences:**
After passing the course the student will be able to understand the structure and characteristic of molecules that have biological interest such as carbohydrates, proteins, lipids, vitamins, etc. A student will be familiar with some aspects of biochemistry which they will need in their veterinary practice.

**Prerequisites:**
General chemistry, Organic chemistry, Biophysics.

**Course content:**
The structure of basic compounds in a living organism, the most important pathways of the metabolism, its energetic and regulatory mechanisms as well as basic information on gene expression and recombinant DNA.

**Recommended literature:**

Form:
Lectures: 75 hours
Tutorials: 75 hours
Other activities: 0 hours

Assessment:
Completed obligatory laboratory exercise; minimum 50% positives in running tests; and the final test or oral exam. The final grade at 80% depends on the result of the final test, and at 20% on the running marks.

Comment:
This subject lasts 2 semesters. There is possibility to have classes in English.

Biophysics

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 1
Semester: Z - (Z - winter, L - summer)
ECTS: 3
Lecturer: prof. dr hab. Halina Kleszczyńska

Learning outcomes:
The student acquires theoretical and practical knowledge of selected areas of physics, in particular those necessary for explaining processes occurring in biological systems. He will come to know the physical methods applicable in the study of properties of systems and organs of living organisms. The student will also become acquainted with the effects of physical factors (e.g., ionizing and non-ionizing radiation, temperature, and infrasounds and ultrasounds) on organisms.
**Competences:**
The knowledge acquired will enable the student to find practical solutions to problems connected with operation of biological systems, which will be instrumental in undertaking experimental scientific research.

**Prerequisites:**
physics, biology

**Course content:**
Fundamentals of classical mechanics, stability and equilibrium of animals, vibrations and waves, thermodynamics, balance and transport of heat in organisms, electric and magnetic properties of matter, electromagnetic waves, elements of nuclear physics, effects of physical factors on organisms.

**Recommended literature:**
Przestalski S.,: Elementy fizyki, biofizyki i agrofizyki, Wydawnictwo U. Wr., Wrocław, 2001

**Form:**
Lectures: 15 hours
Tutorials: 30 hours
Other activities: 0 hours

**Assessment:**
Completion of laboratory training, written exam - I term, or written and oral exam - II term; minimum 60 % of the knowledge to pass.

**Biology**

**Type of the course:** o (o - compulsory; f - optional)

**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
Year: 1
Semester: L - (Z - winter, L - summer)
ECTS: 4
Lecturer: dr Maria Długiewicz-Bulla

Learning outcomes:
During this course students receive theoretical knowledge and practical skills allowing them
to identify and classify species plant and animal. They will know the impact and adaptation of
those organisms to the environment. The student can design a herbarium by himself.

Competences:
After passing the course students are able to recognize and differentiate typical plant and
animal species, their organs and macro- and microscopic structure.

Prerequisites:
Basic Biology

Course content:
Rules of plant and animal contemporary taxonomy and the species definition. The course of
zoology includes protozoology, phylogeny and nomenclature of the Invertebrates. It also
contains a presentation and observation of the anatomy, breed and evolution of chosen
examples and coexistence of the structure and function as well as adaptation to the natural
environment. The botany course includes morphology and life cycles of mosses, ferns and
seed plants and also the economic importance of plants with particular reference to their
medical importance, poisoning possibilities of forage crops and protected species.

Recommended literature:

Form:
Lectures: 30 hours
Tutorials: 30 hours
Other activities: 0 hours
Assessment:
Passing grades of practical course and written exam. Minimum required knowledge for passing: 70%.

Cell biology

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 2
Semester: Z - (Z - winter, L - summer)
ECTS: 2
Lecturer: prof. dr hab. Jan Kuryszko

Learning outcomes:
The aim of the course is to provide information about cell structure, the function of structural elements, processes which take place in them and existent phenomena’s in cell.

Competences:
After completing the course a student is able to recognize cell organelles using different techniques and analyze cell in different aspects.

Prerequisites:
Biology, biophysics, chemistry, biochemistry, histology and embryology

Course content:
Cell ultrastructure, histophysiology of tissues, cell cycle and cell division, cell differentiation, cell injury, apoptosis and necrosis.

Recommended literature:

**Form:**
Lectures: 15 hours
Tutorials: 15 hours
Other activities: 0 hours

**Assessment:**
Credits from laboratory, written exam. Minimum required knowledge for passing: 60%.

**Chemistry**

**Type of the course:** o (o - compulsory; f - optional)
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
**Year:** 1
**Semester:** Z - (Z - winter, L - summer)
**ECTS:** 3
**Lecturer:** dr Bogusław Kotoński.

**Learning outcomes:**
After passing the course students are familiar with basic chemical concepts necessary to understand biochemistry, molecular biology, toxicology etc. They also obtain knowledge of related terminology.

**Competences:**
Student are able to use the basic laboratory equipment, lead basic chemical examinations and experiments.

**Prerequisites:**
General chemistry, basic physics

**Course content:**
Basic problems of general chemistry with special emphasis on chemical processes in water solutions and quantitative and qualitative analytical methods; and organic chemistry, concentrated on the structure and reactions of biologically important molecules.

**Recommended literature:**

**Form:**
Lectures: 15 hours
Tutorials: 30 hours
Other activities: 0 hours

**Assessment:**
Completed laboratory exercises; running written test; the final written exam. The final grade at 80% depends on the result of the final exam, and at 20% on the running marks.

**Veterinary epizootiology and infectious diseases**

**Type of the course:** o (o - compulsory; f - optional)

**Level of the course:** 2 (1 - first cycle; 2 - second cycle)

**Year:** 5, 6

**Semester:** Z - (Z - winter, L - summer)

**ECTS:** 12

**Lecturer:** dr Krzysztof Rypula

**Learning outcomes:**
At the end of the course student should know the infection diseases of pets and stock animals like pigs, cattle, sheep and goats. Student also should know the method of diagnostics and therapeutic and prophylactic procedures.

**Competences:**
At the end of the course student will gain the knowledge of diagnose and recognition of infectious diseases in cattle, pigs, horses, goats, pigs, cats and dogs. Should be able to collect samples for laboratory investigation and to introduce proper treatment or to give instructions to eradicate the disease.

**Prerequisites:**
Microbiology vet., Immunology vet., Farmacology vet., Clinical Diagnostics, Veterinary Epizootiology

**Course content:**
The aim of this course is to provide the students with the basic knowledge about animal disease in population and to give them knowledge about determinants of the disease, its transmission routes, ecology, analytical and descriptive epidemiology problems. And to prepare students to solve an investigations problems, collecting data, and to understand ratios, rates and proportions connected with diseases in animal population. To understand its relationship with other sciences and public health and disease control programmes.

**Recommended literature:**

**Form:**
Lectures: 90 hours
Tutorials: 90 hours
Other activities: 0 hours
Assessment:
Passing grade of practice and clinical work and written-oral exam

Comment:
Clinical training - 50 hours/group. This subject lasts 3 semesters.

Food chemistry and toxicology

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 6
Semester: Z - (Z - winter, L - summer)
ECTS: 1
Lecturer: dr Jacek Bania

Learning outcomes:
At the end of the course, students know about main food components and threats connected with food additives and chemical residues. A student also knows the basic methods of detection and determination of main chemical compounds, food additives and residues which can contaminate food.

Competences:
After passing the course, students are able to determine main risks connected with chemical residues and make examinations of chemical food hazards.

Prerequisites:
Animal physiology, biochemistry, pharmacology, toxicology, food hygiene and technology.

Course content:
Basic terms connected with food toxicology, examination of food additives, applications of food additives from the animals origin, examination of food for food additives and chemical hazards.
Recommended literature:

Form:
Lectures: 0 hours
Tutorials: 15 hours
Other activities: 0 hours

Assessment:
final written test. Minimum required knowledge for passing: 60%

Surgery and anaesthesiology

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 4 i 5
Semester: Z - (Z - winter, L - summer)
ECTS: 11
Lecturer: prof.dr hab. Kornel Ratajczak

Learning outcomes:
Students learn about veterinary surgery and critical care. They know the principles of asepsis and antisepsis, preparation for surgery, and the principles of suturing. They are familiar with different types of anaesthesia (locale, infusive, inhalant) and surgical procedures in companion and farm animals

Competences:
Students are able to properly use aseptic and antiseptic procedures before and after an operation. They are able to anaesthetize domestic animals and perform the main surgery operation. They are able to ordinate proper analgesic management to control postoperative pain in animals. They can introduce into practise procedures and rules of critical care in companion and farm animals.
Prerequisites:
Normal and topographic anatomy, physiology, pathophysiology

Course content:
Theoretical and practical aspects of surgical procedures in companion and farm animals. Practical learning of the use of instruments and surgical equipment.

Recommended literature:

Form:
Lectures: 60 hours
Tutorials: 105 hours
Other activities: 0 hours

Assessment:
Acquiring credits, practical and oral exam. Minimum required knowledge for passing: 90%

Comment:
This subject lasts 3 semesters.

Dogs and cats diseases

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 5
Semester: L - (Z - winter, L - summer)
ECTS: 4

Lecturer: prof. dr hab. Józef Nicpoń

Learning outcomes:
At the end of the course students understand etiology, pathogenesis, and clinical symptoms of internal diseases for dogs and cats. They will be able to make a diagnosis upon history, clinical symptoms and biochemical changes, as well as apply the specialist methods of medical treatment. They are also able to apply specific prophylactics against diseases.

Competences:
Passing the course permits to diagnose and treat the internal diseases of dogs and cats.

Prerequisites:
Histology and embryology, Animal anatomy, Animal physiology, Breeding, Pharmacology, Biophysics, Biochemistry, Veterinary Dietetics

Course content:
Etiology, clinical signs, pathogenesis, diagnosis and treatment of internal diseases for cats and dogs.

Recommended literature:

Form:
Lectures: 30 hours
Tutorials: 30 hours
Other activities: 0 hours

Assessment:
Passing grades of course and written/oral exam. Minimum required knowledge for passing: 60%

Fish diseases

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 6
Semester: Z - (Z - winter, L - summer)
ECTS: 2
Lecturer: prof. dr hab. Michał Stosik

Learning outcomes:
Students learn about fish anatomy and physiology, the methods of breeding and raising of salmonids, cyprinids and ornamental fish, as well as illnesses occurring in fish (environmental, viral, bacterial and parasitological diseases), their diagnostics and treatment.

Competences:
After passing the course students know about fish diseases. They can diagnose and treat them. They know techniques of clinical examination and autopsy of fish.

Prerequisites:
Biology, parasitology, microbiology, epizootiology, toxicology

Course content:
Biology and breeding of cyprinid and salmonid fishes (carp, trout). Environmental, viral, bacterial and parasitological diseases. Technique of clinical examination and necropsy.

Recommended literature:

Form:
Lectures: 15 hours
Tutorials: 15 hours
Other activities: 0 hours

Assessment:
Final test. Minimum required knowledge for passing: 60%

Internal diseases

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 4 i 5
Semester: Z - (Z - winter, L - summer)
ECTS: 12
Lecturer: prof. dr hab. Józef Nicpoń

Learning outcomes:
Students understand aetiology, pathogenesis, clinical signs, diagnosis and treatment of internal diseases of large and small animals.

Competences:
Students are able to diagnose internal diseases of large animals using history, clinical signs and biochemical changes in an organism. They can treat and propose the prophylaxis programme for specific internal diseases. Students are able to make simple laboratory tests of blood, faeces, urine and rumen contents.

Prerequisites:
Clinical diagnostics of domesticated animal internal diseases, Physiology, Animal anatomy, Topographical anatomy, Pharmacology.

**Course content:**

**Recommended literature:**

**Form:**
Lectures: 90 hours
Tutorials: 90 hours
Other activities: 0 hours

**Assessment:**
Passing grades of practical training, written/oral exam. Minimum required for passing: 60%.

**Comment:**
This subject lasts 4 semesters.

**Clinical diagnostics**

**Type of the course:** o (o - compulsory; f - optional)

**Level of the course:** 2 (1 - first cycle; 2 - second cycle)

**Year:** 3
Semester: Z - (Z - winter, L - summer)
ECTS: 7
Lecturer: dr hab. Urszula Pasławska

Learning outcomes:
The student understands aspects of animal behavior as well as theoretical and practical aspects of clinical diagnostics in domestic animals.

Competences:
After passing the course the students are able to make clinical examinations of domestic animals. The students are familiar with modern techniques used in veterinary medicine.

Prerequisites:
Animal anatomy, Topographical anatomy, Biochemistry.

Course content:
Theoretical and practical training of diagnostic methods and clinical examination of domestic animals in aspects of internal diseases. Basic information of modern techniques used in veterinary medicine diagnostics and methods of interpretation of obtained results.

Recommended literature:

Form:
Lectures: 45 hours
Tutorials: 60 hours
Other activities: 0 hours

Assessment:
Passing grades of laboratory course and written/oral exam. Minimum required knowledge for passing: 60%
Veterinary advisement on food animal farms

Type of the course: f (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 5
Semester: L - (Z - winter, L - summer)
ECTS: 2
Lecturer: prof. dr hab. Tadeusz Stefaniak

Learning outcomes:
Students are able to make complex analyses of large animal’s herds’ management systems, write reports and properly inform the owner about the animal’s conditions and welfare.

Competences:
After passing the course students are orientated towards the application of prophylactics on a herd and are able to derive proper data about the animal’s condition and welfare.

Prerequisites:
Animal breeding, Animal nutrition, physiology, Biochemistry, Microbiology, Immunology, Ethology and Animal Welfare, Animal Hygiene.

Course content:
Basic range of prophylaxis on large animals farms, especially on dairy farms. Taking samples for laboratory diagnostics, analysis of farm documents, animal feeding, condition and environment as well as application the farm management program. Interpretations of the results of samples, writing the final report and leading the proper consultation with the owner.

Recommended literature:

Form:
Lectures: 15 hours
Tutorials: 5 hours
Other activities: 10 hours

Assessment:
Passing grades of the course and preparing report.

Comment:
Field study- 10 hours.

Veterinary laboratory diagnostics

Type of the course: f (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 6
Semester: Z - (Z - winter, L - summer)
ECTS: 2
Lecturer: prof.dr hab. Jerzy Molenda

Learning outcomes:
At the end of the course students understand organization and functions of veterinary laboratories. Students also knows the main methods and procedures of laboratory examinations, of different kinds of food and procedures of implementation. Students also understand the Good Laboratory Practice system, and students receive a laboratory certification.

Competences:
After passing the course students are able to lead microbiological examinations for different types of food. They understand basic rules of Good Laboratory Practice and requirements for laboratory certification.

Prerequisites:
Microbiology, food law, infectious diseases

Course content:
Analytical methods of detection for main pathogens that are found in food such as: Salmonella, E.coli, Staphylococcus aureus, Listeria monocytogenes., Code of Good Laboratory Practice, quality management systems in laboratory, requirements for laboratory certification.

**Recommended literature:**
EN Norms 45000; Manuals ISO nr 35, 49; Polish norms PN/EN; Manual standard OIE; EU Directives and Regulations.

**Form:**
Lectures: 0 hours
Tutorials: 25 hours
Other activities: 5 hours

**Assessment:**
Final assessment based on participation in classes.

**Comments:** There is possibility to have classes in English

**Ethology and animal welfare**

**Type of the course:** o (o - compulsory; f - optional)

**Level of the course:** 2 (1 - first cycle; 2 - second cycle)

**Year:** 4

**Semester:** L - (Z - winter, L - summer)

**ECTS:** 2

**Lecturer:** prof. dr hab. Tadeusz Stefaniak

**Learning outcomes:**
Students are able to recognize and understand the normal and abnormal behaviour of healthy and ill domestic animals. Students are able to make a self- dependent, complex evaluation of animal welfare on farms. Students understand the fundamental aspects of human- animal relationship and ethics in animal welfare.
**Competences:**
After passing the course a student can evaluate domestic animals’ behaviour and welfare. They know basic ethical concepts and their practical importance in animal-human relationship and animal husbandry.

**Prerequisites:**
Animal breeding, Animal nutrition, Physiology, Immunology

**Course content:**
Introduction to ethology, basic principles and behavioural phenomena, patterns of normal behaviour of farm animals (horse, cattle, pig, sheep, goat) and pets (dog, cat). Causes, course, consequences and prevention of abnormal animal behaviour. Methods of checking the animal welfare—application in practice.

**Recommended literature:**

**Form:**
Lectures: 15 hours
Tutorials: 15 hours
Other activities: 0 hours

**Assessment:**
Passing grade of course and written elaborates.

**Ethics**

**Type of the course:** o (o - compulsory; f - optional)
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
Learning outcomes:
The objective of the course is to shape moral sensitivity and the ability to assess phenomena in terms of good and evil. The essential aim of teaching ethics is also to order our own beliefs in accordance with our value system.

Competences:
It is served by the introduction to rich issues concerning values realized by both presenting the process of shaping them (presentation of ethical conceptions in a historical perspective) and by reflecting on the ethical problems of the present day.

Prerequisites:
Philosophy.

Course content:
Ethics - its subjects and place among other arts subjects. Presentation of selected ethical conceptions. Environmental ethics With a special emphasis on animal protection. Applied ethics - selected issues.

Recommended literature:

Form:
Lectures: 30 hours
Tutorials: 0 hours
Other activities: 0 hours
Assessment:
Written or oral examination

Veterinary pharmacology

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 3 i 4
Semester: Z - (Z - winter, L - summer)
ECTS: 8
Lecturer: prof. dr hab. Bożena Obmińska-Mrukowicz

Learning outcomes:
During the course students receive a theoretical understanding of the most important groups of drugs used in veterinary medicine and their effects on living organisms. Students know the pharmacologic activities (effect, mechanism of action, therapeutic use and side effects) of principal groups of drugs used for treatment of small and farm animals. Students know disposition and fate of the drugs in the body.

Competences:
After the course students are able to suggest adequate drugs therapy in small and farm animals
Students are able to write properly prescriptions,give proper medicine in adequate dose.

Prerequisites:
Biochemistry, Physiology, Pathophysiology, Veterinary Bacteriology and Mycology

Course content:
**Recommended literature:**
Roliński Z., Farmakologia i Farmakoterapia Weterynaryjna, PWRiL Warszawa, 2001;

**Form:**
Lectures: 45 hours
Tutorials: 75 hours
Other activities: 0 hours

**Assessment:**
Obligatory passing grades of laboratory course and final written exam (test). Minimum required knowledge for passing: at least 65%.

**Comment:**
This subject lasts 2 semesters.

---

**Animal physiology**

**Type of the course:** o (o - compulsory; f - optional)

**Level of the course:** 2 (1 - first cycle; 2 - second cycle)

**Year:** 2

**Semester:** Z - (Z - winter, L - summer)

**ECTS:** 8

**Lecturer:** prof. dr hab. Wojciech Zawadzki

**Learning outcomes:**
Students understand homeostasis and the functions of all the parts of an organism and its systems. They know laboratory methods used for checking the basic vital parameters in a living organism.

**Competences:**
After completing the course, students understand all of the physiological processes in an organism. Students know the main physiological parameters and are able to evaluate their changes in domestic animals and birds.

**Prerequisites:**
Chemistry, Biophysics, Anatomy, Biochemistry, Cell Biology, Histology and Embriology, Biology

**Course content:**

**Recommended literature:**

**Form:**
Lectures: 60 hours
Tutorials: 60 hours
Other activities: 0 hours

**Assessment:**
written exam Ist term, written-oral exam Ilth term. Minimum grade for passing: 60%
Comment:
This subject lasts 2 semesters.

Hygiene and technology of milk and dairy products

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 4
Semester: L - (Z - winter, L - summer)
ECTS: 3
Lecturer: dr Krystyna Morzyk

Learning outcomes:
At the end of the course student gets the knowledge about technological processes connected with obtaining the raw milk and its processing. He also has the knowledge on technological processes of dairy products and problems with their microbiological contamination.

Competences:
After passing the course student is prepared to make examination, evaluation and surveillance on milk and dairy products.

Prerequisites:
Animal physiology, biochemistry, animal breeding and genetics.

Course content:
Microbiological and chemical examination of milk, evaluation of milk quality, hygiene of milk obtaining, hygiene of milk and dairy plants.

Recommended literature:
Form:
Lectures: 15 hours
Tutorials: 30 hours
Other activities: 0 hours

Assessment:
Final written or oral exam- at least 60%.

Fodder hygiene

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 3
Semester: L - (Z - winter, L - summer)
ECTS: 1
Lecturer: dr Piotr Sławuta

Learning outcomes:
Students should know the etiopathogenesis of large animals diseases caused by nutritional factors. Students know the methods of control and prevention of large animals diseases. They acquire the knowledge of special individual large animal feeding requirements

Competences:
Students are able to evaluate the quality of fodder and know the proper requirements for feeding different species of animals.

Prerequisites:
Biochemistry, Physiology, Animal Feeding

Course content:
Nutritional causes of large animals diseases. Natural harmful agents in large animal foods, inappropriate feeding patterns and unsuitable storage of animals food. European and Polish regulation about fodder hygiene.
Recommended literature:
Zarys Dietetyki Weterynaryjnej. Lesław Lewandowski, Mirosława Lewicka, Piotr Janowicz
Wydawnictwo Akademii Rolniczej we Wrocławiu 2000; Żywienie Zwierząt i Paszoznawstwo
I i II. Dorota Jamroz PWN Warszawa 2001; Large Animal Internal Medicine. Bradford P.
Smith red., Mosby - Year Book Inc., St Louis 1996

Form:
Lectures: 0 hours
Tutorials: 15 hours
Other activities: 0 hours

Assessment:
Passing grades of laboratory course(min. 60 %)

Meat and slaughter animals hygiene

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 4 i 5
Semester: L - (Z - winter, L - summer)
ECTS: 7
Lecturer: dr hab. Adam Malicki-prof.nadzw.

Learning outcomes:
At the end of the course a student understands the technological processes connected with
obtaining raw meat and slaughtering animals. The student also understands ante- and post-
mortem meat inspection techniques and principles of meat assessment.

Competences:
After passing the course a student can examine and evaluate raw materials of the animal
origin in order to ensure food and consumer safety.

Prerequisites:
Animal anatomy and physiology, biochemistry, infectious diseases, parasitology.

**Course content:**
Conditions of obtaining the raw meat, ante- and post mortem meat inspection, hazard analysis of raw meat, evaluation of meat.

**Recommended literature:**

**Form:**
Lectures: 30 hours
Tutorials: 70 hours
Other activities: 0 hours

**Assessment:**
Final written or oral exam- Minimum required knowledge for passing- 60%.

**Comment:**
This subject lasts 3 semesters. There are also laboratory classes and field study in slaughterhouses. There is possibility to have classes in English.

**Animal hygiene**

**Type of the course:** o (o - compulsory; f - optional)

**Level of the course:** 2 (1 - first cycle; 2 - second cycle)

**Year:** 4

**Semester:** L - (Z - winter, L - summer)

**ECTS:** 3

**Lecturer:** prof. dr hab. Roman Kołacz

**Learning outcomes:**
Student knows which environmental factors and to what extent are likely to cause pathological changes in animals and deteriorate animal welfare. Students also know the methods for measurement and evaluation of physical and chemical indexes of the microclimate and methods for their optimization. Students are able to evaluate animal housing and transportation conditions with respect to animal welfare requirements.

**Competences:**
After passing the course the students are able to analyze animal welfare and management conditions. Students can lead consultations in bioprevention. They are able to evaluate the conditions of Good Animal Husbandry Practice and microclimatic conditions on animal farms.

**Prerequisites:**
Biophysics, Pathophysiology, Diagnostics of Internal Diseases

**Course content:**
Microclimatic conditions (UV irradiation, lighting, humidity and air temperature, circulation, harmful gases, dust, noise) and their impact on animal health and performance. Permissive standards of housing systems for livestock with respect to animal welfare, bioprevention, hygiene and environmental protection. Good practice in animal hygiene in connection with food safety. Requirements for animal transportation.

**Recommended literature:**

**Form:**
Lectures: 15 hours
Tutorials: 25 hours
Other activities: 5 hours
Assessment:
Continuous assessment of exercises, oral exam. Minimum passing grade: 60%.

Comment:
Field study- 5 hours.

Histology and embryology

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 1
Semester: Z - (Z - winter, L - summer)
ECTS: 10
Lecturer: prof. dr hab. Jan Kuryszko

Learning outcomes:

Students understand the cellular and tissue structure of a domestic animals organs and have basic information about its histophysiology. The students are also familiar with problems of embryonic and foetal development in animals from the moment of fertilization to a very early period after parturition.

Competences:
After the course students are able to recognize cells, tissues and organs of domestic animals and birds, using a microscope. They can use basic histological techniques in histological examination of animal tissues.

Prerequisites:
Biology, biophysics, chemistry.

Course content:
The structure and function of tissues, histological structure, function and development of primary and secondary organs, development of foetal membranes, structure and function of placenta.
Recommended literature:

Form:
Lectures: 45 hours
Tutorials: 60 hours
Other activities: 0 hours

Assessment:
Credits from laboratory, oral exam, minimum required knowledge for passing: 60%

Comment:
This subject lasts 2 semesters.

History and deontology of veterinary medicine

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 6
Semester: Z - (Z - winter, L - summer)
ECTS: 1
Lecturer: prof. dr hab. Norbert Pospieszny

Learning outcomes:
During the history and deontology of veterinary medicine course student gets a theoretical knowledge about the veterinary profession history upon the times. He knew the history of medicine, bibliographic monuments, development of the veterinary schools in Poland and Europe. Student know the role of veterinary medicine in military human activity. He knew also the ethics codex and professional deontology and he is acquainted with the role of veterinarians in environment protection and ecology.
**Competences:**
The aim of the course is the humanisation of veterinary profession.

**Prerequisites:**
History

**Course content:**
History of animal medicine upon the material nations history, veterinary education in Poland and Europe, military veterinary medicine, veterinary medicine and other biological sciences, veterinary newspapers and journals, veterinary deontology.

**Recommended literature:**

**Form:**
Lectures: 0 hours
Tutorials: 15 hours
Other activities: 0 hours

**Assessment:**
Test; minimum required knowledge for passing: 100%

**History of philosophy**

**Type of the course:** o (o - compulsory; f - optional)
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
**Year:** 2
**Semester:** Z - (Z - winter, L - summer)
ECTS: 2

Lecturer: dr hab. Krystyna Skurjat

Learning outcomes:
Lectures on philosophy are meant for students who believe philosophy has a general humanistic character that completes their knowledge at a basic level.

Competences:
A universal character of philosophical issues makes this science a valuable proposal for understanding the world and particularly human life.

Prerequisites:
Arts subjects at the secondary school level

Course content:
Philosophy - the development of philosophical thinking from ancient times to contemporary times.

Recommended literature:

Form:
Lectures: 26 hours
Tutorials: 0 hours
Other activities: 4 hours

Assessment:
Written or oral exam.

Comment:
Seminars- 4 hrs.
Animal breeding

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 3
Semester: L - (Z - winter, L - summer)
ECTS: 5
Lecturer: Prof. dr hab. Jerzy Monkiewicz

Learning outcomes:
On completion of the course the student will be able to trace the growth and development of farm animals, will know the criteria for selection of animals for breeding taking into account their type, sex, productivity etc. The student will be able to assess the meat, dairy, yield, wool, procreation and work quality of farm animals. Moreover, the student will know how to select the animals according to the breeding needs and will be acquainted with the methods of mating and crossbreeding.

Competences:
The course deepens the knowledge of the students of Veterinary Medicine in the field of Animal Science. It gives them possibility to supervise and provide extension services in professional breeding and husbandry of farm animals.

Prerequisites:
Biology, Anatomy, Biochemistry, Animal Feeding

Course content:
The role of animal breeding in national economy, growth and development processes at various stages of animal life; selection criteria used in animal breeding; animals used for dairy, wool, procreation and work purposes. Principles of selection, mating and crossing methods, bastardisation of animals. Practical advice for professional animal breeding.

Recommended literature:

**Form:**
Lectures: 50 hours  
Tutorials: 30 hours  
Other activities: 0 hours

**Assessment:**
Obtaining credit for lab work, test exam. Minimum required knowledge for passing: 51%.

**Comment:**
This subject consists of a few parts: general aspects of animal breeding, horse breeding, cattle breeding, poultry breeding.

**Immunology**

**Type of the course:** o (o - compulsory; f - optional)  
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)  
**Year:** 3  
**Semester:** Z - (Z - winter, L - summer)  
**ECTS:** 3  
**Lecturer:** prof. dr hab. Wojciech Nowacki

**Learning outcomes:**
Students understand the basic mechanisms of specific and nonspecific immune responses, the integrative role of the immune system in maintaining the homeostasis of an organism, goals and methods of vaccination in disease prevention and laboratory methods for antigens and antibodies detection and some cellular techniques.

**Competences:**
Students are able to explain immunological reactions which occur in organism. They can use the proper vaccine to prevent a specific animal disease. They are able to use laboratory detection methods for antigens and antibodies.
Prerequisites:
Biochemistry, histology, cell biology

Course content:
Cells and tissues of the immune system, antibodies (Ab): structure, functions, diversity of immunoglobulins, antigens (Ag), antigen-antibody reactions, monoclonal antibodies, molecules of immune recognitions, antigen presentation, major histocompatibility complex, TCR and BCR receptor, lymphocyte activation, immune response and its control, mechanisms of innate and adaptive response, inflammation, cytokines, cellular and humoral cytotoxicity, mucosal immunity, anti microbial immunity, immunodeficiency and immune disorders, hypersensitivity, vaccination, vaccines, immunology of pregnancy.

Recommended literature:

Form:
Lectures: 15 hours
Tutorials: 30 hours
Other activities: 0 hours

Assessment:
Passing grades of laboratory course and written exam, minimum 60% to pass.

Latin

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 1
Semester: Z - (Z - winter, L - summer)
ECTS: 3
Lecturer: mgr Eugeniusz Biały

Learning outcomes:
Student knows Latin, which is necessary in all medical sciences.

Competences:
Student knows Latin grammar at basic level, knows medical terminology, proverbs and some popular Latin sayings.

Prerequisites:
None.

Course content:
Students will be taught grammar and vocabulary with regards to medical terms. Grammar includes declinations of nouns and adjectives, conjugations, adverbs and numerals, prefixes and suffixes. Proverbs and sayings will also be included in the teachings. Texts in the course book contain materials covering medical terminology.

Recommended literature:

Form:
Lectures: 0 hours
Tutorials: 45 hours
Other activities: 0 hours

Assessment:
Continuous assessment + final test. Minimum knowledge requires for passing: 60%.

Comment:
This subject lasts 2 semesters.

Foreign languages

**Type of the course:** o (o - compulsory; f - optional)

**Level of the course:** 2 (1 - first cycle; 2 - second cycle)

**Year:** 1,2,3

**Semester:** L - (Z - winter, L - summer)

**ECTS:** 8

**Lecturer:** mgr Jadwiga Bolechowska

**Learning outcomes:**
Students can choose English, German, French or Russian. They are allocated to groups according to the results obtained in a “Placement Test” written at the beginning of the first semester of the language course. The construction of the test allows language teachers to make a group division in compliance with Common European Framework of Reference.

**Competences:**
Student can read, write and communicate in foreign language.

**Prerequisites:**
Polish Matura (from level A2 to B2) after secondary school.

**Course content:**
Level A2 Focuses on listening comprehension, spoken interaction, reading and writing. Vocabulary related to basic personal and family information, shopping, local area, and employment. Reading advertisements, prospects and timetables. Communication in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities. Giving directions, inviting people to social events, etc., short social exchanges. Giving advice, agreeing/disagreeing. Describing people, places and simple situations. Giving short definitions. Writing short, simple notes and messages, postcards and letters.

**Recommended literature:**
A course book; internet materials, audiovisual aids, etc
Form:
Lectures: 0 hours
Tutorials: 120 hours
Other activities: 0 hours

Assessment:
semesters 2, 3, 4 continuous assessment (active participation, homework, tests), after semester 5- written and oral examination.

Comment:
This subject lasts 4 semesters. Classes -30 h in each semester.

Marketing in veterinary practice

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 6
Semester: Z - (Z - winter, L - summer)
ECTS: 2
Lecturer: dr Robert Karczmarczyk

Learning outcomes:
Students have the basic knowledge about running private business in free market area.
Students understand customer-veterinary surgeon relations and good veterinary practice rules.
Students are familiar with marketing strategies and ability to be flexible in offering service.

Competences:
After the course students are able to set up and run private veterinary practice. They are able to use advertisement, public relation, marketing techniques and other rules in veterinary practice.

Prerequisites:
Knowledge of practical work of veterinary surgeons
Course content:
Mechanisms of relationship between veterinary surgeons and clients, understanding the differences between professional skills and offering professional service, ethics in veterinary profession.

Recommended literature:

Form:
Lectures: 15 hours
Tutorials: 0 hours
Other activities: 15 hours

Assessment:
Passing grade of seminar work and written exam. Minimum required knowledge for passing: 60%

Comment:
Classes are led as the seminars. It is possible to have this subject in English.

Orthopaedics

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 5
Semester: L - (Z - winter, L - summer)
ECTS: 3

**Lecturer**: prof. dr hab. Kornel Ratajczak

**Learning outcomes:**
Students get a theoretical knowledge and practical skills of orthopaedic examination of small and large animals, therapeutic management of motoric organ diseases. They train the practical skills according to the basic orthopaedic procedures in horses, cattle, dogs and cats.

**Competences:**
Student are able to use in practice the main orthopaedic procedures in shoeing and trimming of horn in horses and cattle. They are able to perform surgical treatment of a septic pododermatitis. They can use surgical procedures of osteosynthesis in treatment of bone fractures using wire, intramedullary nails, screws and plates.

**Prerequisites:**
Normal and topographic anatomy, physiology, patophysiology

**Course content:**
Practical skills of orthopaedic examination and treatment. Demonstration and training of orthopaedic repair surgeries.

**Recommended literature:**

**Form:**
Lectures: 15 hours
Tutorials: 30 hours
Other activities: 0 hours

**Assessment:**
Acquiring credits, practical and oral exam after semester10- Minimum required knowledge for passing: 90%

**Diseases of beneficial insects**
Type of the course: o (o - compulsory; f - optional)

Level of the course: 2 (1 - first cycle; 2 - second cycle)

Year: 5

Semester: L - (Z - winter, L - summer)

ECTS: 2

Lecturer: prof.dr hab. Barbara Tomaszewska

Learning outcomes:
Students get to know biology of honey bee colony and silkworm. Students know causes, pathogenesis, diagnostics and control methods of honey bee diseases according to veterinary law.

Competences:
Students are able to follow examination of honeybee colonies in order to diagnose diseases collected in group B (OIE directive) and to run laboratory diagnostics of mentioned diseases.

Prerequisites:
biology, microbiology, parasitology

Course content:
Anatomy and physiology of honey bee and silkworm. Biology of honey bee colony, basic knowledge about apiculture. Causes, symptoms, diagnostics and control of honey bee diseases (list B of OIE), basics of apiary hygiene. Basic knowledge about silkworm diseases.

Recommended literature:

Form:
Lectures: 7 hours
Tutorials: 17 hours
Other activities: 6 hours

Assessment:
Obligatory passing of course. Minimum required knowledge for passing: 100%

Comment:
Field study in apiary- 6 hrs.

Veterinary parasitology

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 3 i 4
Semester: L - (Z - winter, L - summer)
ECTS: 7
Lecturer: dr hab. Zenon Soltysiak-prof.nadzw.

Learning outcomes:
During the course students receive a theoretical knowledge about the most important and common parasites in animals. They know their aetiology, clinical signs, diagnostic methods and treatment. They also understand prophylaxis in animals.

Competences:
After the course students are able to conduct parasitological examination at an elementary level. They can propose adequate treatment and prophylaxis in the most important and common parasites in animals.

Prerequisites:
Biology, Internal Clinical Diagnostics, Pathophysiology and Pathology, Pharmacology.

Course content:
Parasites in domestic and wild animals, their morphology, biology, life cycle and epizootical and epidemiological roles. Interactions between hosts and parasites, various laboratory methods used in diagnosis of parasitological diseases, treatment and prophylaxis of parasites in animals.

Recommended literature:
Furmaga S.. Choroby pasożytnicze zwierząt domowych, PWRiL, Warszawa 1983.;
Kadłubowski R. : Zarys parazytologii lekarskiej, PZWL, Warszawa 1999.; Stefański W.:
Parazytologia weterynaryjna, PWRiL, Warszawa 1968.; Januszkiewicz J. : Zarys kliniki
parazytologii, Skrypt AR, Wrocław 1984. ; Mehlhorn H.: Encyclopedic Reference of
Parasitology (Biology, Structure, Function) Springer-Verlag Berlin Heildelberg, New York

**Form:**
Lectures: 60 hours
Tutorials: 45 hours
Other activities: 0 hours

**Assessment:**
Obligatory passing grades of laboratory course and written (test) exam. Minimum required
knowledge for passing: at least 60%.

**Comment:**
This subject lasts 2 semesters.

**Pathophysiology**

**Type of the course:** o (o - compulsory; f - optional)

**Level of the course:** 2 (1 - first cycle; 2 - second cycle)

**Year:** 2 i 3

**Semester:** L - (Z - winter, L - summer)

**ECTS:** 7

**Lecturer:** prof. dr hab. Stanisław Graczyk

**Learning outcomes:**
Students learn about pathomorphological alternations (macroscopically and histologically) in
various organs. They are familiar with the theory of health and disease, aetiology and the
pathogenesis of illnesses. They know the dynamics of systemic processes and pathogenic mechanisms.

**Competences:**
After the course students are able to understand pathophysiological processes taking place in sick organisms. They can conduct the basic haematological and serological tests and interpret their results.

**Prerequisites:**
Anatomy, Histology, Biochemistry, Cell Biology, Physiology

**Course content:**

**Recommended literature:**

**Form:**
Lectures: 60 hours
Tutorials: 45 hours
Other activities: 0 hours

**Assessment:**
Passing grades of laboratory course, tests and final oral exam. Minimum passing grade: at least 60%.
Comment:
This subject lasts 2 semesters.

Basic computer science

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 1
Semester: Z - (Z - winter, L - summer)
ECTS: 4
Lecturer: mgr inż. Sebastian Ploch

Learning outcomes:
At the end of the course students are able to use text editor, spreadsheet, presentation programs and the Internet – protocols, services, applications.

Competences:
Passing the course permits to work in practice with different popular computers programs.

Prerequisites:
None.

Course content:

Recommended literature:
Manuals about computers and computer's software such as Word, Excel, Power Point.

Form:
Lectures: 0 hours
Tutorials: 60 hours
Other activities: 0 hours

Assessment:
Passing grades of practical course.

Comment:
This subject lasts 2 semesters.

Veterinary Prevention

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 5
Semester: Z - (Z - winter, L - summer)
ECTS: 6
Lecturer: prof. dr hab. Tadeusz Stefaniak

Learning outcomes:
Students understand herd breeding, feeding, prevention and health monitoring. They know the problems with newborn immunity and diseases concerned with immunity deficiency. They know laboratory methods of prevention and eradication within the herd.

Competences:
Students are able to resolve the main problems connected with large herd management and are able monitor the herd’s health. They are able to assess the conditions of large animals and put into practice methods and the main principles of cooperation with the owner. Students are able to use some simple diagnostic methods, available in large animal veterinary

Prerequisites:
Animal breeding, Animal nutrition, Physiology, Biochemistry, Microbiology, Immunology, Ethology and Animal Welfare, Animal Hygiene.
Course content:
Course consists of fifth topics, decrypting the most important problems of food animals’ herds: 1. Prevention and health monitoring in herd; 2. Food animals’ immunity – especially immunity of newborn; 3. Losses in young stock – causes associated with alimentary tract; 4. Losses in young stock – causes associated with respiratory tract; 5. Losses in herd and progeny caused by inappropriate feeding. The most important swine and bovine herd problems (selected aspects of bovine, goat and horse health problems) methods of prevention and eradication within the herd.

Recommended literature:

Form:
Lectures: 30 hours
Tutorials: 54 hours
Other activities: 4 hours

Assessment:
Passing grades of course and written elaborates, written exam. Minimum grade for passing: 60%

Comment:
This subject lasts 2 semesters. Apart of lectures and practical classes there are also field studies- 4 hrs. and clinical work- 2 hrs.

Veterinary radiology

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 5
Semester: Z - (Z - winter, L - summer)
ECTS: 3
Lecturer: dr Jan Siembieda

Learning outcomes:
Students are familiar with the origin of roentgen radiation and they understand the digital date necessary for understanding the structure and mode of operation of X-ray devices.

Competences:
After passing the course, students are able to conduct and describe radiographs in the aspect of thoracic organs, abdomen and osseous system.

Prerequisites:
Normal and topographic anatomy, physiology, patophysiology.

Course content:
The range of indications for imagining techniques including X-ray and ultrasonography in diagnostics of domestic animals.

Recommended literature:
Radiodiagnostyka weterynaryjna, W. Empel, PWRiL 1998; Atlas interpretacji obrazów radiograficznych anatomii psa i kota. A. Coulson, N. Lewis, Galaktyka 2005

Form:
Lectures: 15 hours
Tutorials: 30 hours
Other activities: 0 hours

Assessment:
Obligatory passing grades of classes course, oral exam after semester 9. Minimum required knowledge for passing: at least 90%

Animal reproduction (gynecology and obstetrics)
Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 5 i 6
Semester: Z - (Z - winter, L - summer)
ECTS: 11
Lecturer: prof. dr hab. Andrzej Dubiel

Learning outcomes:
Students understand how to diagnose and treat disturbances in the sexual cycle, pregnancy, parturition, puerperium in domestic animals. Students can also make a diagnosis and treat mammary glands and noninfectious diseases in a newborn and they can conduct an embryo transfer in cows.

Competences:
After the course students are able to diagnose the phase of sexual cycle and pregnancy by manual and USG examination in domestic animals. They can diagnose and treat the disturbances of sexual cycle in animals. They are able to treat diseases of mammary glands and noninfectious diseases in newborn.

Prerequisites:
Pharmacology, Biochemistry, Physiology, Physiopathology, Anatomy and Pathological Anatomy.

Course content:
Physiology and pathology of sexual cycles in females, physiology and pathology of pregnancy, parturition, puerperium, mammary glands, noninfectious diseases in newborns and embryo transfers.

Recommended literature:
Form:
Lectures: 84 hours
Tutorials: 60 hours
Other activities: 24 hours

Assessment:
Obligatory passing grades of laboratory course and practical and oral exam. Minimum grade for passing: at least 70%.

Comment:
This subject lasts 3 semesters. 24 hrs of clinical classes.

Internship - surgery

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 4
Semester: Z - (Z - winter, L - summer)
ECTS: 3
Lecturer: prof. dr hab. Kornel Ratajczak

Learning outcomes:
Students have a theoretical and practical knowledge regarding diagnostics of surgically treated diseases, preparatory procedures for animal operations, as well as post-operation care.

**Competences:**
After passing the course students are able to carry out complete physical examinations, perform specific examinations and suggest surgical therapies. They can use the pretreatment procedures for operated animals. They have manual skills within the area of basic operation techniques, post-operation care and critical treatment.

**Prerequisites:**
Descriptive and topographic anatomy, physiology, patophysiology, pathological anatomy, clinical diagnostics.

**Course content:**
Practical training connected with animal treatment, manual skills within the area of basic operation techniques.

**Recommended literature:**

**Form:**
Lectures: 0 hours
Tutorials: 50 hours
Other activities: 0 hours

**Assessment:**
Acquiring credits, minimum passing grade - at least 60%

Comment:
This subject lasts 2 semesters.

Toxicology and environmental protection

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 4
Semester: L - (Z - winter, L - summer)
ECTS: 5
Lecturer: prof.dr hab. Marcin Świtała

Learning outcomes:
During the course students receive a theoretical knowledge of toxins, toxicodynamics and toxicokinetics. They understand the aetiology, diagnosis and therapy of diseases caused by different toxins. They understand the laboratory methods for identifying specific toxins.

Competences:
After the course students are able to conduct a toxicological examination at an elementary level. They can diagnose and ordinate the effectiveness and safety of drugs in intoxicated animals.

Prerequisites:
Pharmacology, Clinical Diagnostics, Pathological Anatomy

Course content:
Acute and chronic forms of animal poisonings caused by organic and inorganic compounds including pesticides, drugs, poisons from vegetables or from animal origins, their aetiology, toxicodynamics and toxicokinetics, diagnosis and therapy, factors which can modify the toxicity of poison, principles of eco-toxicology and environment protection.

Recommended literature:
Form:
Lectures: 30 hours
Tutorials: 45 hours
Other activities: 0 hours

Assessment:
Obligatory passing grades of laboratory course and final oral exam. Minimum grade required for passing: at least 65%.

Food law

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 4
Semester: Z - (Z - winter, L - summer)
ECTS: 2
Lecturer: prof.dr hab. Jerzy Molenda

Learning outcomes:
At the end of the course, students have a basic knowledge of the most important Polish and EU food regulations in respect to food and consumer safety.

Competences:
After passing the course, a student is able to interpret food law and use main food regulations in practice.

Prerequisites:
None.
Course content:
Basic terms connected with law and food law, Polish and EU regulations connected with food and consumer’s safety.

Recommended literature:

Form:
Lectures: 15 hours
Tutorials: 15 hours
Other activities: 0 hours

Assessment:
Final written exam. Minimum required knowledge for passing: at least 60 %.

Forensic veterinary medicine

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 6
Semester: Z - (Z - winter, L - summer)
ECTS: 2
Lecturer: dr hab. Zenon Sołtysiak-prof.nadzw.

Learning outcomes:
Students understand the most important animal diseases and their forensic significance. They learn about polish veterinary law and medical aspects of expert witness affairs. They understand post-mortem examinations and laboratory methods used in forensic veterinary medicine.

Competences:
After passing the course students are able to prepare an expert opinion according to rules they learned earlier.

**Prerequisites:**
Pathology, Microbiology, Pharmacology, Toxicology, Parasitology.

**Course content:**
The structure, organization, function and task of forensic veterinary medicine in Poland.

**Recommended literature:**
Lutyński W. 1989. Administracja weterynaryjna i weterynaria sądowa PWRiL, Warszawa;
weterynarii jako biegły. Wyd. UWM, Olsztyn; Mondrzak H.,Krupa D., Marszałkowska-Krześ
Zagadnienia teorii i praktyki. C.H. Beck, Warszawa

**Form:**
Lectures: 15 hours
Tutorials: 0 hours
Other activities: 15 hours

**Assessment:**
Obligatory passing grades of laboratory course and written exam -minimum required
knowledge for passing: 60%.

**Comment:**
Seminars- 15 hrs.

**Veterinary virology**

**Type of the course:** o (o - compulsory; f - optional)

**Level of the course:** 2 (1 - first cycle; 2 - second cycle)

**Year:** 3

**Semester:** L - (Z - winter, L - summer)
ECTS: 4

Lecturer: prof.dr hab. Witold Golnik

Learning outcomes:
During the course, students will learn the biology of viruses, their classification and epidemiology. They will know about the most important groups of animal viruses, pathogenesis of virus infections and modern vaccinology problems. The practical course is devoted to the virological and serological procedures.

Competences:
After the course, students are able to conduct virological examination and simple laboratory virological tests for virus identification.

Prerequisites:
Biology, Biochemistry, Bacteriology, Immunology.

Course content:
Groups of viruses, viral diseases and prophylaxis.

Recommended literature:

Form:
Lectures: 20 hours
Tutorials: 30 hours
Other activities: 0 hours

Assessment:
Practical, test and the final written exam. Minimum grade for passing: 60%

Quality management in food
Code: VVS.2.0092f.06
Former code: 49
Type of the course: f (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 6
Semester: Z - (Z - winter, L - summer)
ECTS: 2
Lecturer: dr Lech Rak

Learning outcomes:
After passing the course, students understand quality requirements for food and implementation of quality management systems such as: GMP/GHP, HACCP, ISO 9000 in food plants.

Competences:
After passing the course, students are able to work with quality management systems implemented in food plants.

Prerequisites:
Food hygiene, food and food processing hygiene, food law.

Course content:
Terms and definitions connected with quality, Good Manufacturing and Good Hygienic Practice in food plants, HACCP system, requirements of ISO 9001 and ISO 22000 norms, auditing of quality assurance systems.

Recommended literature:

Form:
Lectures: 0 hours
Tutorials: 26 hours
Other activities: 4 hours

Assessment:
Practical preparing the documentation of HACCP system.

Comment:
There is possibility to have classes in English. Field study (in food plants)- 4 hrs.

Diseases of laboratory animals

Type of the course: f (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 6
Semester: Z - (Z - winter, L - summer)
ECTS: 2
Lecturer: dr Tomasz Piasecki

Learning outcomes:
During the course, students learn about biology, husbandry, breeding and diseases of laboratory animals. They know the aetiology, diagnostic, prophylaxis and treatment of laboratory animals diseases.

Competences:
Students are able to provide clinical examinations, diagnose and propose proper therapy and prophylaxis for specific diseases of laboratory animals. Students can take samples for laboratory examination and make anatomic pathological examinations.

Prerequisites:
Veterinary Diagnostics, Veterinary Microbiology, Veterinary Pathological Anatomy, Pharmacology

Course content:
Biology, husbandry, breeding, clinical syndromes, therapy, diseases of laboratory animals (guinea pigs, rabbits, hamsters, gerbils, mice, rats, birds). Aetiology, diagnostic, prophylaxis and treatment of infection and non-infection diseases. The most common husbandry and disease problems. Laboratory animals care personnel. Regulation for experiments on laboratory animals.

**Recommended literature:**

**Form:**
Lectures: 15 hours
Tutorials: 15 hours
Other activities: 0 hours

**Assessment:**
Final test. Minimum grade for passing: 60%.

**Ecology of game animals**

**Type of the course:** o (o - compulsory; f - optional)

**Level of the course:** 2 (1 - first cycle; 2 - second cycle)

**Year:** 4

**Semester:** Z - (Z - winter, L - summer)

**ECTS:** 1

**Lecturer:** prof. dr hab. Marek Houszka

**Learning outcomes:**
Students know bionomy and ecology of the main species of game animals in Poland. Characteristic morphological and physiological features of the game, nutrition, reproduction, transfer of information, sense organs. Principles of ecology and environmental conditions of the populations development. Game husbandry as the main agent of animals protection and populations control. On the practical laboratories in the forest student get acquainted with animals tracks and main game husbandry devices.
**Competences:**
After passing the course students can understand the reasons of the ecological balance disorders and influence of that condition on health and life of wild animals.

**Prerequisites:**
Animal anatomy, histology, physiology

**Course content:**
History an today of the hunting in Poland. Bionomy and physiology of the roe deers, european deers, fallow deers, wild boars, hares, foxes, partriges, phasants, wild ducks, geeses and birds of pray. Ethic aspects of hunting.

**Recommended literature:**

**Form:**
Lectures: 10 hours
Tutorials: 0 hours
Other activities: 5 hours

**Assessment:**
Obligatory participation in the laboratories and written exam. Minimum required knowledge for passing: at least 70%.

**Comment:**
There is possibility to have classes in English. Field study-5 hrs.

**Diseases of game animals**

**Type of the course:** o (o - compulsory; f - optional)
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
Year: 6
Semester: Z - (Z - winter, L - summer)
ECTS: 2
Lecturer: prof.dr hab. Marek Houszka

Learning outcomes:
Students understand breeds, feeding, behavior and specific features of wild animals and birds. They know the most important diseases of game animals, birds of prey, waterfowls and wild gallinaceans and interrelation between those animals and their environment.

Competences:
After the course students are able to diagnose and treat main game animals’ diseases.

Prerequisites:
Pathology, parasitology.

Course content:
Post mortem, histopathological and parasitological diagnosis of game diseases in Poland. Specific features of diseases in natural environment. Interrelations between the worlds of wild animals, farm animals and humans. The influence of ecological balance disorders on the health and life of animals.

Recommended literature:

Form:
Lectures: 15 hours
Tutorials: 15 hours
Other activities: 0 hours

Assessment:
Oral exam. Minimum required knowledge for passing: at least 70%.

Comment:
There is possibility to have this subject in English.

Animal nutrition and feed quality

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 4
Semester: Z - (Z - winter, L - summer)
ECTS: 4
Lecturer: Prof. dr hab., dr h.c. Dorota Jamroz

Learning outcomes:
The course will prepare the students for analysis of animal feeding and diagnostics of possible disturbances as well as controlling of feeds and feeding. Moreover students understand modern systems of feeds conservation, composition of commercial feed mixtures and premixes as well as disturbances/diseases triggered by feeding mistakes.

Competences:
After completing the course students are familiar with the fundamentals of monogastric animals and ruminants nutrition. Student knows the requirements for feeding and the ways of balancing diets offered to the particular species and feeding value of home-made and commercial feedstuffs. Also student are able to evaluate the feed quality and use them in modeling of different feeding systems. Student can evaluate the well-balanced diets for animals.

Prerequisites:
Biochemistry, animal physiology.

Course content:
Substantial nutrients, biochemistry of their transformation in monogastric animals and in ruminants. Metabolism and energy transformation. Feeds nutritive value. Minerals and vitamins and their role in animals’ feeding. Feed utilization. Feed quality, feed supplements, metabolic diseases, requirements of animals for nutrients, diseases caused by the feeding mistakes.

**Recommended literature:**

**Form:**
Lectures: 30 hours
Tutorials: 30 hours
Other activities: 0 hours

**Assessment:**
obligatory completion of practical training, written and verbal exam; min. 70 % of knowledge to pass.

**Dog and cat nutrition**

**Type of the course:** f (o - compulsory; f - optional)
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
**Year:** 5
**Semester:** L - (Z - winter, L - summer)
**ECTS:** 2
**Lecturer:** dr Agnieszka Kurosad

**Learning outcomes:**
A student knows the general basis of dogs’ and cats’ nutrition, kinds of commercial petfoods and the characteristics of home-made diets. A student knows a variety of feeding methods and feeding schemes for different breeds of dogs.
**Competences:**
After passing the course the students are able to establish proper diet for pet animals. They know the influence of a diet on the health status of an animal.

**Prerequisites:**
Biochemistry, Physiology, Animal Feeding, Fodder Hygiene.

**Course content:**

**Recommended literature:**

**Form:**
Lectures: 15 hours
Tutorials: 15 hours
Other activities: 0 hours

**Assessment:**
Passing grades of laboratory course, oral/written tests. Min. 60% points from tests.

**Radiation protection**

**Type of the course:** o (o - compulsory; f - optional)
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
**Year:** 3
**Semester:** L - (Z - winter, L - summer)
ECTS: 1

Lecturer: prof. dr hab. Stanisław Graczyk

Learning outcomes:
Students are introduced to the basic problems of radiobiology and radiation protection. They know the possible ways of polluting the anmilas and products of animal origin with radionuclids. They are able to indicate the possibilities of radioisotopes use in veterinary medicine. They are familiar with the role of radiation in oncogenesis in parallel with synergistic influence of environment pollution. Students have the ability to conduct the measurement of radioactive pollution using basic dosimetric equipment as well as to employ simple decontamination techniques.

Competences:
Completion of the course permits making researches connected with investigation and prophylaxis of contamination of animal origin products. It also gives the opportunity to take part in the activities of services protecting against radiation and radiation terrorism.

Prerequisites:
Biophysics, Chemistry, Physiology, Pathophysiology.

Course content:

Recommended literature:
1. “Promieniotwórcze skażenie środowiska”, Kossakowski S. wyd. PIWet. w Puławach, 1995,

Form:
Lectures: 0 hours
Tutorials: 15 hours
Other activities: 0 hours

Assessment:
Practical and test. Minimum required knowledge for passing: 60%.

Internship - internal disease

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 4 i 5
Semester: Z - (Z - winter, L - summer)
ECTS: 3
Lecturer: prof. dr hab. Józef Nicpoń

Learning outcomes:
Students are able to take anamnesis, provide clinical examination and diagnose the animal illness. Students can make the additional laboratory tests and verify their diagnosis upon those tests. They are able to give the proper medical treatment in a proper way (per os., s.c., i.m., i.v). They can care about animals in hospital and know how to fill in the medical documentation.

Competences:
Passing the course gives the practical knowledge of methods of animals taming, anamnesis, clinical examination, taking samples for laboratory analysis and basic medical - internal procedures, providing in domestic animals. It gives the knowledge how to fill in the medical documentation in a proper way.
**Prerequisites:**
Clinical diagnostics, Animal Breeding, Physiology, Animal anatomy, Topographical anatomy, Pharmacology, Dietetics.

**Course content:**
Etiopathogenesis, clinical signs, diagnosis and treatment of internal diseases of horses, cattle, pigs, dogs and cats. Laboratory analysis of feces, blood, urine and skin. Prophylactics and medical treatment.

**Recommended literature:**

**Form:**
Lectures: 0 hours
Tutorials: 50 hours
Other activities: 0 hours

**Assessment:**
Passing grades of practical, min. 65%.

**Comment:**
This subject lasts 3 semesters.

**Policlinic**
Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 5 i 6
Semester: L - (Z - winter, L - summer)
ECTS: 3
Lecturer: dr Ryszard Mordak

Learning outcomes:
Students are able to take anamnesis, provide clinical examination, especially per rectum in horses, cows and pigs. Students can make the examination of mammary gland in domestic animals. Students can take the biological samples for additional laboratory tests. They are able to give the proper medicine in a proper way (p o.s., s.c., i.m., i.v). They know how to write the medical documentation. They get to know the administration procedure of infectious diseases.

Competences:
Passing the course gives the practical knowledge of methods of animals taming, anamnesis, clinical examination, taking samples for laboratory analysis and basic medical - internal procedures, providing in domestic animals. It gives the knowledge how to write the medical documentation in a proper way.

Prerequisites:
Clinical diagnostics, Animal Breeding, Physiology, Animal anatomy, Topographical anatomy, Pharmacology, Fodder Hygiene, Veterinary administration.

Course content:
General clinical examination in horses, cattle and pigs, especially providing per rectum and examination of mammary gland in cows. Specialistic gynecological examination in horses and cows. Gastroscopy in horses and cows. Methods of taking the biological samples from domestic animals, transport procedures and the analysis of laboratory results.

Recommended literature:

**Form:**
Lectures: 0 hours
Tutorials: 0 hours
Other activities: 40 hours

**Assessment:**
Passing grades of field study; min. 65% knowledge to pass.

**Comment:**
This subject lasts 2 semesters. Every student has 20 hrs of field classes in every semester.

**Internship - the animal reproduction**

**Type of the course:** o (o - compulsory; f - optional)
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
**Year:** 5
**Semester:** Z - (Z - winter, L - summer)
**ECTS:** 3
**Lecturer:** dr Wojciech Niżański

**Learning outcomes:**
Students are able to take anamnesis, provide gynecological examination and diagnose the animals pregnancy and the period of sexual cycle. Students are able to take semen from the males and make their analysis. Students can diagnose animals reproduction diseases and propose the adequate treatment. Students are able to estimate the animals przydatność do reprodukcji. They are prepared to gynecological surgery.

**Competences:**
Passing the course gives the practical knowledge of methods of animals taming, anamnesis, gynecological examination, taking biological samples for laboratory analysis and basic
medical – gynecological procedures, providing in domestic animals. It gives the knowledge how to write the medical documentation in a proper way.

**Prerequisites:**
Clinical diagnostics of house animal internal diseases, Animal Breeding, Physiology, Animal anatomy, Topographical anatomy, Pharmacology, Animal Nutrition.

**Course content:**
Etiopathogenesis, clinical signs, diagnosis and treatment of different diseases connected with reproduction of domestic animals.

**Recommended literature:**

**Form:**
Lectures: 0 hours
Tutorials: 50 hours
Other activities: 0 hours

**Assessment:**
Passing grades of practical, min. 65% knowledge to pass.

**Comment:**
This subject lasts 2 semesters.

**Veterinary stomatology**

**Type of the course:** f (o - compulsory; f - optional)

**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
Learning outcomes:
During the course students get theoretical and practical knowledge of veterinary stomatology.

Competences:
After passing the course the students are able to diagnose the most often stomatological diseases in dogs, cats and horses. They obtain the knowledge of the therapy in stomatological problems and manual experience.

Prerequisites:
Histology, Anatomy, Pathology, Animal Feeding, Fodder Hygiene, Dietetics, Microbiology, Pharmacology, Toxicology, Internal Disease, Infectious Disease

Course content:
Ability in preparation the stomatiological documentation, knowledge of stomatological equipment and instruments. Stomatological therapy and prophylaxis of diseases in oral cavity. Knowledge of stomatological problems of the growth, maturation period and geriatry. The influence of pathology in oral cavity on systemic health of the organism. The stomatological diseases of dogs, cats and horses.

Recommended literature:

Form:
Lectures: 20 hours
Tutorials: 10 hours
Other activities: 0 hours

**Assessment:**
Passing grades of laboratory course, oral/written tests (min. 60% points from tests)

**Internship - epizootiology**

*Type of the course:* o (o - compulsory; f - optional)
*Level of the course:* 2 (1 - first cycle; 2 - second cycle)
*Year:* 5 i 6
*Semester:* L - (Z - winter, L - summer)
*ECTS:* 3
*Lecturer:* dr Krzysztof Rypula

**Learning outcomes:**
Students know the list of available and registered vaccines in Poland for diagnostic and therapeutic purposes of animal infectious diseases, storage and usage conditions, drug code, route of administration of drugs and immunity activity period.

**Competences:**
Students know the list of available and registered vaccines in Poland for diagnostic and therapeutic purposes of animal infectious diseases, storage and usage conditions, drug code, route of administration of drugs and immunity activity period. Vaccination of domestic, stock and wild animals. Students know eradication of infectious diseases, management of suspected and diseased animals.

**Prerequisites:**
Microbiology, Immunology, Farmacology, Clinical Diagnostics, Veterinary Epizootiology.

**Course content:**
Veterinary pharmaceutical products – the list of available and registered in Poland for diagnostic and therapeutic purposes of animal infectious diseases. Storage and usage
conditions. Drug code. Route of administration of drugs. Immunity activity period. Practical approach of official veterinary service procedures in the diseased area, routine administrative activity and competence in diseased area.

**Recommended literature:**
Vademecum lekarza weterynarii.

**Form:**
Lectures: 0 hours
Tutorials: 50 hours
Other activities: 0 hours

**Assessment:**
Passing grade of practice and clinical work; min. 65% knowledge for passing.

**Comment:**
This subject lasts 2 semesters.

**Pigs diseases**

**Type of the course:** f (o - compulsory; f - optional)
**Level of the course:** 2 (1 - first cycle; 2 - second cycle)
**Year:** 6
**Semester:** Z - (Z - winter, L - summer)
**ECTS:** 2
**Lecturer:** dr Krzysztof Rypula

**Learning outcomes:**
Practical abilities of veterinary management in big pig farm. Having passed the course student will be able to examine and estimate health status of the pigs during fatten process with the emphasis on potential risk of infectious diseases occurrence.

**Competences:**
Student will be able to analyze and determine the risk of disease factors during on-going fatten process. During the course student get practical experience on examining ant selecting pigs to diagnostic veterinary procedure, to sample material to laboratory tests, secure and send that material to the lab.

**Prerequisites:**
Bacteriology, virology, pharmacology, internal medicine, surgery.

**Course content:**
Student will exercise with analyzing methods of animal health status in the appropriate age group of pigs, sampling procedure and sending to proper laboratory. Student get experience with specific veterinary work on pig farm.

**Recommended literature:**
Rolle/Mayr A.: Medizinische Mikrobiologie Infektions- und Seuchemedizin. 4 Ed. Ferdinand Enke Verlag Stuttgart, 1993

**Form:**
Lectures: 20 hours
Tutorials: 0 hours
Other activities: 10 hours

**Assessment:**
Oral exam; minimum knowledge required for passing: 60%.

**Comment:**
Field study- 10 hrs.
Physiology of animals' nutrition

Type of the course: f (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 3
Semester: Z - (Z - winter, L - summer)
ECTS: 2
Lecturer: prof. dr hab. Wojciech Zawadzki

Learning outcomes:
A student knows the general rules of dogs’ and cats’, horses', pigs, and poultry nutrition, basic nutrition components demands. A student knows the rules of feeding animals in different periods of their life.

Competences:
After finishing the course a student knows the general rules of dogs’ and cats’, horses', pigs, and poultry nutrition, basic nutrient components demands. A student knows the rules of feeding animals in different periods of their life.

Prerequisites:
Animal Anatomy, Biochemistry, Physiology.

Course content:
Basic information about phisiology of nutrition, digestion, basic nutrient components. Dogs' and cats' nutrition, wrong diet, basic rules of domestic animals nutrition.

Recommended literature:
Form:
Lectures: 24 hours
Tutorials: 6 hours
Other activities: 0 hours

Assessment:
Passing grades of practical course, oral/written exam (min. 65% to pass).

Internship - parasitology

Type of the course: o (o - compulsory; f - optional)
Level of the course: 2 (1 - first cycle; 2 - second cycle)
Year: 4
Semester: Z - (Z - winter, L - summer)
ECTS: 1
Lecturer: dr Andrzej Połozowski

Learning outcomes:
Students know basic diagnostic methods of examinations of blood, faeces, urine, skin scrapings and hairs of animals for detection of parasites.

Competences:
At the end of this course the students are able to execute all of learnt methods and identify parasitie infection.

Prerequisites:
Biology, parasitology.

Course content:
On clinical parasitology course students observe ticks in natural environment and assemble them for further researches (for research of species and development stage). They learn and
execute basic diagnostic methods of examinations of blood, faeces, urine, skin scrapings and hairs of animals for parasites.

**Recommended literature:**

**Form:**
Lectures: 0 hours
Tutorials: 15 hours
Other activities: 0 hours

**Assessment:**
Passing grades of laboratory course and practical exam; minimum knowledge required for passing: 75%.

**2. Curriculum hours**
Table IV.2.1: General table of curriculum hours taken by all students

<table>
<thead>
<tr>
<th>Year</th>
<th>Lectures</th>
<th>Seminars Laboratory and desk based work</th>
<th>Seminars Non-clinical Clinical work</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First</td>
<td>210</td>
<td>375</td>
<td></td>
<td>585</td>
</tr>
<tr>
<td>Second</td>
<td>180</td>
<td>465</td>
<td></td>
<td>645</td>
</tr>
<tr>
<td>Third</td>
<td>315</td>
<td>510</td>
<td></td>
<td>825</td>
</tr>
<tr>
<td>Fourth</td>
<td>319,5</td>
<td>505,5</td>
<td></td>
<td>825</td>
</tr>
<tr>
<td>Fifth</td>
<td>435</td>
<td>622,5</td>
<td></td>
<td>1057,5</td>
</tr>
<tr>
<td>Sixth</td>
<td>210</td>
<td>240</td>
<td></td>
<td>450</td>
</tr>
<tr>
<td>Total</td>
<td>1669,5</td>
<td>2718</td>
<td></td>
<td>4387,5</td>
</tr>
</tbody>
</table>
### Table IV.2.2: Curriculum hours in EU-listed subjects taken by each student

<table>
<thead>
<tr>
<th>Subject</th>
<th>Theoretical training</th>
<th>Supervised practical training</th>
<th>Clinical work</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lectures</td>
<td>Seminars</td>
<td>Laboratory</td>
<td>Non-Laboratory</td>
<td></td>
</tr>
<tr>
<td>1. Basic Subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Physics</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>b) Chemistry</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>c) Animal biology</td>
<td>15</td>
<td>15</td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>d) Plant biology</td>
<td>15</td>
<td>15</td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>e) Biomathematics</td>
<td></td>
<td></td>
<td>60</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td><strong>1-Total number of hours</strong></td>
<td>60</td>
<td>150</td>
<td></td>
<td></td>
<td>210</td>
</tr>
<tr>
<td>2. Basic Science</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Anatomy</td>
<td>90</td>
<td>180</td>
<td></td>
<td></td>
<td>270</td>
</tr>
<tr>
<td>b) Histology and embryology</td>
<td>45</td>
<td>60</td>
<td></td>
<td></td>
<td>105</td>
</tr>
<tr>
<td>c) Biochemistry</td>
<td>75</td>
<td>75</td>
<td></td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>d) Physiology</td>
<td>60</td>
<td>90</td>
<td></td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>e) Cell biology</td>
<td>15</td>
<td>15</td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>f) Genetics</td>
<td>22</td>
<td>23</td>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>g) Pharmacology</td>
<td>45</td>
<td>75</td>
<td></td>
<td></td>
<td>120</td>
</tr>
<tr>
<td>h) Toxycology and Environm. Protection</td>
<td>30</td>
<td>45</td>
<td></td>
<td></td>
<td>75</td>
</tr>
<tr>
<td>i) Microbiology</td>
<td>60</td>
<td>90</td>
<td></td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>j) Immunology</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>k) Pathophysiology</td>
<td>60</td>
<td>45</td>
<td></td>
<td></td>
<td>105</td>
</tr>
<tr>
<td>l) Veterinary History and Deontology</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td><strong>2-Total number of hours</strong></td>
<td>517</td>
<td>15</td>
<td>728</td>
<td></td>
<td>1260</td>
</tr>
<tr>
<td>3. Clinical Sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Clinical Diagnostics</td>
<td>45</td>
<td></td>
<td>60</td>
<td></td>
<td>105</td>
</tr>
<tr>
<td>b) Clinical Analytic</td>
<td></td>
<td></td>
<td>30</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>c) General Pathology</td>
<td>75</td>
<td></td>
<td>120</td>
<td></td>
<td>195</td>
</tr>
<tr>
<td>d) Parasitology</td>
<td>60</td>
<td></td>
<td>45</td>
<td></td>
<td>105</td>
</tr>
<tr>
<td>e) Dietetics</td>
<td></td>
<td></td>
<td>30</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>f) Internal Diseases of Domestic Animals</td>
<td>90</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>150</td>
</tr>
<tr>
<td>g) Surgery and Anaesthesiology</td>
<td>60</td>
<td>30</td>
<td></td>
<td>75</td>
<td>165</td>
</tr>
<tr>
<td>h) Radiology</td>
<td>15</td>
<td></td>
<td>30</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>i) Orthopaedics</td>
<td>15</td>
<td></td>
<td>30</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>j) Dog and Cat Diseases</td>
<td>15</td>
<td></td>
<td>30</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>k) Poultry Diseases</td>
<td>45</td>
<td></td>
<td>18</td>
<td></td>
<td>70</td>
</tr>
<tr>
<td>l) Gynecology and Obstetrics</td>
<td>90</td>
<td>60</td>
<td></td>
<td>30</td>
<td>180</td>
</tr>
<tr>
<td>m) Andrology and Artificial Insemination</td>
<td>20</td>
<td></td>
<td>15</td>
<td>25</td>
<td>60</td>
</tr>
<tr>
<td>n) Epizootiology and Infectious Disease</td>
<td>90</td>
<td>60</td>
<td></td>
<td>30</td>
<td>180</td>
</tr>
<tr>
<td>o) Beneficial Insects Diseases</td>
<td>10</td>
<td></td>
<td>20</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Subject</td>
<td>Theoretical training</td>
<td>Supervised practical training</td>
<td>Other</td>
<td>Hours to be taken by each student per subject group</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>----------------------</td>
<td>--------------------------------</td>
<td>-------</td>
<td>---------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminars</td>
<td>Laboratory and desk based work</td>
<td>Non-clinical animal work</td>
<td>Clinical work</td>
<td></td>
</tr>
<tr>
<td>Basic subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Physiology of nutrition</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Specific information on the practical training in food hygiene/public health

3.1 Describe arrangements for teaching in a slaughterhouse and/or in premises for the production, processing of food of animal origin

Every time before the beginning of the semester in which takes part the visits in food plants teachers from the Department ask for permission and make an appointment with owners of plants. In additional Head of Department asks local veterinary authority for permission of visiting in chosen meat plants.

Meat plants are not interested in making any special agreement with Department or Faculty because they find students disturbing them. They don’t have neither time nor special rooms for students.

3.2 Indicate the distance to slaughterhouses where students undergo training and the species covered. Outline the structure and the frequency of these visits.
Food processing plants are located 50-100 km from Faculty. These are pork, beef and poultry cutting, deboning and processing plants.

Slaughterhouses (pigs and cattle) and dairy plants are located 150 km from Wrocław.

Training of food technology takes place in meat plants in summer semester (year 5th). Students visit them from 10 a.m till 3 p.m. Every time 2 groups of students come (every group consists of 20 people). During visiting processing department students are divided into smaller groups. Students are accompanied by 2 teachers. Every group of students come to meat plants twice, every time to another plant (1 - meat processing plant, 2 - poultry processing plant).

Training of meat and slaughtered animals hygiene and milk and dairy products hygiene are limited to 2 longer visits to plants. During summer semester (4 year) students leave for 3 days out of Wrocław to the place where there are some slaughterhouses (cattle and pig) and dairy plant close to each other. Students are divided into group of about 20 people and are supervised by teachers and veterinary inspectors. They are taught about animal welfare, ante- and post mortem examination, documentation, laboratory examination of meat, quality management systems, Good Manufacturing and Hygiene Practice, organization of meat plants. The second visit takes place at the beginning of 9 semester (5 year). This is only one day visit in slaughter house, where students pass exam of practical skills of post-mortem examination of carcasses.

The journeys are not financed by the Faculty. Students have to paid for such journeys themselves.

**Comments:**

Practical training of food hygiene should be led in smaller student group (maximum 10 people).

It is necessary to establish some kind of cooperation between Faculty and food plants and slaughterhouses.

**Suggestions:**

The Faculty should give extra money for students or for Department for organising the travel to food plants. Students complain that they must themselves pay for such trips.

Another organisation of laboratory classes of food microbiology and food chemistry is required. Such classes should be led in blocks (2-3 days: 1 day for preparing samples and inoculation, 2-3 days for further examinations). In such classes should take part only small group of students (maximum 10 people) and such group should be supervised by 1 teacher.

4. Ratios
4.1. General indicators types of training

Denominator

<table>
<thead>
<tr>
<th>Theoretical training</th>
<th>1</th>
<th>0,71</th>
<th>1,41</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervised practical training</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clinical work</th>
<th>1</th>
<th>0,13</th>
<th>7,7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory and desk based</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2 Special indicators of training in food hygiene/public health

<table>
<thead>
<tr>
<th>Total no. curric-hours Food Hyg.</th>
<th>1</th>
<th>0,07</th>
<th>14,3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no. hours vet. Curric.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total no. curric-hours Food Hyg.</th>
<th>1</th>
<th>2,16</th>
<th>0,46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours obligatory extramural work.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In vet. Inspection</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Further information

The new curriculum has been implemented since 2007.

CURRICULUM OF VETERINARY STUDY
(academic year 2008/09)

1st YEAR
1st (winter) semester

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures</th>
<th>Practical labs seminars</th>
<th>Assessment exam/grade</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>obligatory courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anatomy of Animals</td>
<td>30</td>
<td>75</td>
<td>grade</td>
<td>8</td>
</tr>
<tr>
<td>Histology and Embriology</td>
<td>15</td>
<td>30</td>
<td>grade</td>
<td>4</td>
</tr>
<tr>
<td>Cell Biology</td>
<td>15</td>
<td>15</td>
<td>exam</td>
<td>2</td>
</tr>
<tr>
<td>Biophysics</td>
<td>15</td>
<td>15</td>
<td>exam</td>
<td>2</td>
</tr>
<tr>
<td>Chemistry</td>
<td>15</td>
<td>30</td>
<td>exam</td>
<td>3</td>
</tr>
<tr>
<td>IT Technology</td>
<td></td>
<td>30</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Social Science</td>
<td>20</td>
<td>10</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Subject</td>
<td>Lectures</td>
<td>Practical labs seminars</td>
<td>Assessment exam/grade</td>
<td>ECTS</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------</td>
<td>------------------------</td>
<td>-----------------------</td>
<td>------</td>
</tr>
<tr>
<td><strong>obligatory courses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anatomy of Animals</td>
<td>30</td>
<td>60</td>
<td>exam</td>
<td>8</td>
</tr>
<tr>
<td>Histology and Embriology</td>
<td>30</td>
<td>30</td>
<td>exam</td>
<td>4</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>45</td>
<td>45</td>
<td>grade</td>
<td>6</td>
</tr>
<tr>
<td>General Genetics</td>
<td>15</td>
<td>15</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Biology</td>
<td>15</td>
<td>30</td>
<td>grade</td>
<td>3</td>
</tr>
<tr>
<td>Environmental Protection</td>
<td>10</td>
<td>20</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Biostatics and Methods of Data Collection.</td>
<td></td>
<td>30</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Veterinary History and Deontology.</td>
<td>15</td>
<td></td>
<td>grade</td>
<td>1</td>
</tr>
<tr>
<td>Agronomy</td>
<td>15</td>
<td></td>
<td>grade</td>
<td>1</td>
</tr>
<tr>
<td>Social Science</td>
<td>20</td>
<td>10</td>
<td>grade</td>
<td>1</td>
</tr>
<tr>
<td>Foreign Language <em>(Polish Language)</em></td>
<td></td>
<td>45</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Physical Education/Sports</td>
<td></td>
<td>20</td>
<td>grade</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>195</td>
<td>305</td>
<td></td>
<td>33</td>
</tr>
</tbody>
</table>

2nd YEAR

3rd (winter) semester

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures</th>
<th>Practical labs seminars</th>
<th>Assessment exam/grade</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>obligatory courses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biochemistry</td>
<td>30</td>
<td>30</td>
<td>exam</td>
<td>7</td>
</tr>
<tr>
<td>Subject</td>
<td>Lectures</td>
<td>Practical labs seminars</td>
<td>Assessment exam/grade</td>
<td>ECTS</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>----------</td>
<td>-------------------------</td>
<td>-----------------------</td>
<td>------</td>
</tr>
<tr>
<td>Animal Physiology</td>
<td>30</td>
<td>45</td>
<td>exam</td>
<td>6</td>
</tr>
<tr>
<td>Animal Breeding</td>
<td>15</td>
<td>30</td>
<td>exam</td>
<td>3</td>
</tr>
<tr>
<td>Technologies in Animal Production</td>
<td>15</td>
<td>15</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Ethology and Animal Welfare</td>
<td>15</td>
<td>15</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Veterinary Economics</td>
<td>15</td>
<td></td>
<td>grade</td>
<td>1</td>
</tr>
<tr>
<td>Veterinary Microbiology</td>
<td>30</td>
<td>45</td>
<td>grade</td>
<td>5</td>
</tr>
<tr>
<td>Foreign Language <em>(Polish Language)</em></td>
<td>30</td>
<td></td>
<td>grade</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education/Sports</td>
<td>20</td>
<td></td>
<td>grade</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>135</strong></td>
<td><strong>245</strong></td>
<td></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

**2nd YEAR**

**4th (summer) semester**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures</th>
<th>Practical labs seminars</th>
<th>Assessment exam/grade</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>obligatory courses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal Physiology</td>
<td>30</td>
<td>45</td>
<td>exam</td>
<td>6</td>
</tr>
<tr>
<td>Veterinary Microbiology</td>
<td>30</td>
<td>30</td>
<td>exam</td>
<td>6</td>
</tr>
<tr>
<td>Animal Nutrition and Food Quality</td>
<td>30</td>
<td>45</td>
<td>exam</td>
<td>6</td>
</tr>
<tr>
<td>Veterinary Immunology</td>
<td>15</td>
<td>30</td>
<td>exam</td>
<td>4</td>
</tr>
<tr>
<td>Foreign Language <em>(Polish Language)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veterinary Epidemiology</td>
<td>30</td>
<td></td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Topographical Anatomy</td>
<td>15</td>
<td>30</td>
<td>grade</td>
<td>4</td>
</tr>
<tr>
<td>Pathophysiology</td>
<td>30</td>
<td></td>
<td>grade</td>
<td>2</td>
</tr>
</tbody>
</table>

| **Total**                                           | **150**  | **210**                 |                       | **32** |
| Summer Practical Training: Farm practice (80 hrs)    |          |                         |                       | 1     |

**3rd YEAR**

**5th (winter) semester**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures</th>
<th>Practical labs seminars</th>
<th>Assessment exam/grade</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>obligatory courses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>Lectures</td>
<td>Practical labs seminars</td>
<td>Assessment exam/grade</td>
<td>ECTS</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>----------</td>
<td>-------------------------</td>
<td>-----------------------</td>
<td>------</td>
</tr>
<tr>
<td>Pathophysiology</td>
<td>30</td>
<td>45</td>
<td>exam</td>
<td>6</td>
</tr>
<tr>
<td>Clinical and Laboratory Diagnostics</td>
<td>30</td>
<td>30</td>
<td>grade</td>
<td>3</td>
</tr>
<tr>
<td>Veterinary Pharmacology</td>
<td>30</td>
<td>30</td>
<td>grade</td>
<td>4</td>
</tr>
<tr>
<td>Veterinary Pharmacy</td>
<td></td>
<td>15</td>
<td>grade</td>
<td>1</td>
</tr>
<tr>
<td>Parasitology and Invasiology</td>
<td>30</td>
<td>30</td>
<td>grade</td>
<td>4</td>
</tr>
<tr>
<td>Pathomorphology</td>
<td>45</td>
<td>45</td>
<td>grade</td>
<td>6</td>
</tr>
<tr>
<td>Ecology and Wildlife Pathology</td>
<td></td>
<td>15</td>
<td>grade</td>
<td>1</td>
</tr>
</tbody>
</table>

165 210 25

Every student is obligated to choose such number of elective courses in semester 5 or 6 so that the total number of ECTS is 60.

elective courses (sem 5 or 6) - minimum 45 hrs = 3 ECTS
### obligatory courses

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures</th>
<th>Practical labs seminars</th>
<th>Assessment exam/grade</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterinary Pharmacology</td>
<td>15</td>
<td>45</td>
<td>exam</td>
<td>4</td>
</tr>
<tr>
<td>Pathomorphology</td>
<td>45</td>
<td>45</td>
<td>exam</td>
<td>8</td>
</tr>
<tr>
<td>Parasitology and Invasiology</td>
<td>15</td>
<td>30</td>
<td>exam</td>
<td>3</td>
</tr>
<tr>
<td>Surgery and Anaesthesiology</td>
<td>15</td>
<td>30</td>
<td>grade</td>
<td>3</td>
</tr>
<tr>
<td>Clinical and Laboratory Diagnostics</td>
<td>15</td>
<td>30</td>
<td>grade</td>
<td>4</td>
</tr>
<tr>
<td>Image Diagnostics</td>
<td>15</td>
<td>45</td>
<td>grade</td>
<td>4</td>
</tr>
<tr>
<td>Public Health Protection in a State of Disaster</td>
<td></td>
<td></td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Beneficial Insects Diseases</td>
<td>10</td>
<td>15</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Fur Animal Diseases</td>
<td>10</td>
<td>15</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>140</strong></td>
<td><strong>255</strong></td>
<td></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

### elective courses (semester 5 or 6)

Every student is obligated to choose such number of elective courses in semester 5 or 6 so that the total number of ECTS is 60.

### elective courses (sem 5 or 6) - minimum 45 hrs = 3 ECTS

#### 4th YEAR

#### 7th (winter) semester

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures</th>
<th>Practical labs seminars</th>
<th>Assessment exam/grade</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>obligatory courses</td>
<td>Lectures</td>
<td>Practical labs seminars</td>
<td>Assessment exam/grade</td>
<td>ECTS</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>----------</td>
<td>-------------------------</td>
<td>-----------------------</td>
<td>------</td>
</tr>
<tr>
<td>Diseases of Farm Animals:</td>
<td>105:</td>
<td>140:</td>
<td>exam</td>
<td>17</td>
</tr>
<tr>
<td>- internal diseases</td>
<td>- 15</td>
<td>- 45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- surgery</td>
<td>- 15</td>
<td>- 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- reproduction</td>
<td>- 30</td>
<td>- 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- infectious diseases</td>
<td>- 45</td>
<td>- 30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slaughter Animals and Meat Hygiene</td>
<td>15</td>
<td>30</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Fodder Hygiene</td>
<td>15</td>
<td>15</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Hygiene and Technology of Milk and Dairy Products</td>
<td>15</td>
<td>30</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Fish Diseases</td>
<td></td>
<td>15</td>
<td>grade</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>160</strong></td>
<td><strong>230</strong></td>
<td><strong>25</strong></td>
<td></td>
</tr>
<tr>
<td>elective courses (semester 7 or 8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Every student is obligated to chose such number of elective courses in semester 7 or 8 so that the total number of ECTS is 60.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

elective courses (sem 7 or 8) - minimum 45 hrs = 3 ECTS

4th YEAR
8th (summer) semester

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures</th>
<th>Practical labs seminars</th>
<th>Assessment exam/grade</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>obligatory courses</td>
<td>Lectures</td>
<td>Practical labs</td>
<td>Assessment</td>
<td>ECTS</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------</td>
<td>---------------</td>
<td>------------</td>
<td>------</td>
</tr>
<tr>
<td>Diseases of Horses</td>
<td>65: 20</td>
<td>125: 30</td>
<td>exam</td>
<td>11</td>
</tr>
<tr>
<td>- internal diseases</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- surgery</td>
<td>15</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- reproduction</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- infectious diseases</td>
<td>15</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slaughter Animals and Meat Hygiene</td>
<td>15</td>
<td>45</td>
<td>exam</td>
<td>5</td>
</tr>
<tr>
<td>Food Sanitary Law</td>
<td>15</td>
<td>15</td>
<td>grade</td>
<td>1</td>
</tr>
<tr>
<td>Veterinary Toxicology</td>
<td>30</td>
<td>30</td>
<td>exam</td>
<td>4</td>
</tr>
<tr>
<td>Zoonoses</td>
<td></td>
<td>15</td>
<td>grade</td>
<td>1</td>
</tr>
<tr>
<td>Andrology and Artificial Insemination</td>
<td>15</td>
<td>25</td>
<td>grade</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>140</td>
<td>255</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Summer Practical Training: Animal Clinics (160 hrs)</td>
<td></td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Summer Practical Training: Slaughterhouses (80 hrs)</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>elective courses (semester 7 or 8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Every student is obligated to choose such number of elective courses in semester 7 or 8 so that the total number of ECTS is 60.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

elective courses (sem 7 or 8) - minimum 45 hrs = 3 ECTS

5th YEAR
9th (winter) semester

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures</th>
<th>Practical labs seminars</th>
<th>Assessment exam/grade</th>
<th>ECTS</th>
</tr>
</thead>
</table>
### 5th YEAR

#### 10th (summer) semester

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures</th>
<th>Practical labs seminars</th>
<th>Assessment exam/grade</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>obligatory courses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preventive Veterinary Medicine</td>
<td>30</td>
<td>45</td>
<td>exam</td>
<td>5</td>
</tr>
<tr>
<td>Hygiene and Microbiology of Food Processing</td>
<td>30</td>
<td>30</td>
<td>exam</td>
<td>4</td>
</tr>
<tr>
<td>Veterinary Administration</td>
<td>15</td>
<td>15</td>
<td>exam</td>
<td>2</td>
</tr>
<tr>
<td>Forensic Veterinary Medicine</td>
<td>15</td>
<td>15</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Poultry Diseases – Clinical Internship</td>
<td></td>
<td>30</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Diseases of Farm Animals - Clinical Internship</td>
<td></td>
<td>45</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td>Diseases of Dogs and Cats - Clinical Internship</td>
<td></td>
<td>45</td>
<td>grade</td>
<td>1</td>
</tr>
<tr>
<td>Diseases of Horses - Clinical Internship</td>
<td></td>
<td>45</td>
<td>grade</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>90</td>
<td>240</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Summer Practical Training: Animal Clinics (160 hrs)</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Summer Practical Training: Food Processing Plants (80 hrs)</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Summer Practical Training: Animal Clinics (160 hrs) 5
Summer Practical Training: Food Processing Plants (80 hrs) 2
elective courses

Every student is obligated to choose such number of elective courses in semester 9 or 10 so that the total number of ECTS is 60.

elective courses (sem 9 or 10) - minimum 60 hrs = 4 ECTS

6th YEAR
11 (winter) semester

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures</th>
<th>Practical labs seminars</th>
<th>Assessment exam/grade</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>obligatory courses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of Farm Animals - Clinical Internship</td>
<td>45</td>
<td>grade</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Diseases of Dogs and Cats - Clinical Internship</td>
<td>45</td>
<td>grade</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Diseases of Horses - Clinical Internship</td>
<td>45</td>
<td>grade</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>135</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td><strong>elective courses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. clinical subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. food hygiene subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Every student is obligated to choose such number of elective courses so that the total number of ECTS is 30.

elective courses (sem 11) - 150 hrs = 20 ECTS
SUMMER PRACTICAL TRAINING:
- farm practice (after 2nd year) – 2 weeks (80 hrs) 1ECTS
- animal clinics (after 4th year) – 4 weeks (160 hrs) 5ECTS
- slaughterhouses (after 4th year) – 2 weeks (80 hrs) 2 ECTS
- animal clinics (after 5th year) – 4 weeks (160 hrs) 5 ECTS
- food processing plants (after 5th year) – 2 weeks (80 hrs) 2 ECTS
Chapter V – TEACHING: QUALITY AND EVALUATION

1. Factual information

V.1. The teaching programme
“Commission of curriculum assessment and coordination” is working in the field of cooperation between patterns of subjects, Departments, courses and evaluation of teaching materials.

V.2. THE TEACHING ENVIRONMENT
There is no care focused on teaching skills. There is no way of accelerate promotion for good academic teachers. There are three special rewards annually given by Rector for “best teachers”. Just three for all five faculties (!).

V.3. THE EXAMINATION SYSTEM
Each year there are 2 periods for examination. Each by end of the semester and each lasts 2 weeks.
Examination are performed in written papers, multiple choice questions, oral, practical, and clinical examinations. There is a free choice of the Department of it.
There are 2 attempts for examination. If both failed there is a possibility for student to ask for the third attempt called ”commission exam”. Dean is in charge to decide in each case.

V.5. EVALUATION OF TEACHING
Procedures concerning teaching quality assessment.
National assessment procedure.
Since 2002 National Accreditation Committee (NAC) is working as a body of Ministry of Higher Education. NAC assesses level of teaching in every higher education establishment. Every discipline is assessed every fifth year. Before the visit starts every faculty is obliged to prepare self evaluation report according to standard operating procedure. Our Faculty was evaluated in 2 the year 2003. After evaluating 811 disciplines in Poland NCA rewarded 11 faculties including our faculty. Next evaluation by NCA is planned in May-June 2009.
University teaching quality evaluation.
Upon the act of Senat dated 23 of December 2004 University Teaching Quality Evaluation System was created and inforced. There are three levels of evaluation.
Level ONE.
Organizational units operating within faculties are to prepare and assesses programmes of the courses, syllabi and teaching materials.

Level TWO - faculties

It is a faculty’s tasks to evaluate teaching process according to courses programmes and standards. Faculties are responsible for organization and proper performance of courses and subjects. Students are also asked for their opinion about quality of teaching, access to equipment and used teaching methods and materials. Every subject is to be evaluated that way. Each year graduates are asked to evaluate all study programme. Answers can have personal remarks. Students and graduated do it in electronic way and by writing specially prepared questionnaire. Every year classes are to be visited by special group consisted of 3 person with teaching experience. Protocols are made and showed to the Dean in confidential way.

Level THREE – University

According to Rector ordinance dated 31 of March 2006 Commission of Teaching Quality Evaluation was created. The aim of that commission is to evaluate classes, didactic basis, document control, analyzing the quality of teaching, assessing ECTS coordination. Every year commission gives an report to Vice-Rector who announces the documents to the Senat.

V.5. STUDENT WELFARE

Accommodation for students is well organized. There are University’s student houses. Faculty does not have its own student houses. Students can attend extra activity like sports (University Sport Centre with swimming pool and many sections of sport, i.e. karate, basketball, volleyball, tennis, dancing team “Jedliniok”, fitness, horse riding, etc.)

2. Comments

University Teaching Quality Evaluation System is a new procedure and, if properly used, can verify academic teachers which for sure will influence with positive way on teaching quality. Weak point of all evaluation procedure is almost invisible influence on persons who seem to be not good teachers. Some positions like professors are “untouchables”. Another weakness is that salaries does not depend even a little bit on evaluation result. Working at the University is a lifetime position. No matter about evaluation remarks.

3. Suggestions
Contracts for academic staff might be a good solution. Evaluation of academic staff in Poland in public higher education system is generally based on scientific point of view. Teaching – in evaluation process - is not recognized as strategic area for academic staff. It is sad true.
Chapter VI – FACILITIES AND EQUIPMENT

1. Factual information

There are four clinics operating in our Faculty
- Surgery
- Obstetrics
- Internal Disease
- Infectious Diseases

Table VI.2
Places Available for clinics and hospitalization
- for cattle 14
- for horses 20
- for small ruminants 5
- for pigs 10
- for dogs 18
- for cats 15
- for hares 18 cages
- for pigeons 4 big cages

Number of animals that can be accommodated is isolation facilities
- small animals 16
- farm animals 6

Premises for lecturing
Faculty just uses the lecture halls located in different buildings that are under University control.

Table VI.3
Premises for group work

<table>
<thead>
<tr>
<th>Room</th>
<th>No.1</th>
<th>No.2</th>
<th>No.3</th>
<th>No.4</th>
<th>No.5</th>
<th>No.6</th>
<th>No.7</th>
<th>No.8</th>
<th>No.9</th>
<th>No.10</th>
<th>No.11</th>
<th>No.12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Places</td>
<td>20</td>
<td>30</td>
<td>24</td>
<td>18</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>32</td>
<td>22</td>
<td>17</td>
<td>20</td>
<td>30</td>
</tr>
</tbody>
</table>
Table VI.4
Premisses for practical work

<table>
<thead>
<tr>
<th>Room No.</th>
<th>No. 1</th>
<th>No. 2</th>
<th>No. 3</th>
<th>No. 4</th>
<th>No. 5</th>
<th>No. 6</th>
<th>No. 7</th>
<th>No. 8</th>
<th>No. 9</th>
<th>No.10</th>
<th>No.11</th>
<th>No.12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Places</td>
<td>32</td>
<td>18</td>
<td>20</td>
<td>20</td>
<td>40</td>
<td>24</td>
<td>20</td>
<td>24</td>
<td>18</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

2. Slaughterhouse facilities

2.1. These are slaughterhouses which have slaughter of cattle and pigs. They are for EU market approved. The distance from Wrocław to these plants is about 150 km.

3. Foodstuff processing unit

3.1. Meat processing plants are located 50 to 100 km. from Faculty. These are meat processing plants of different types and sizes. They are for EU market approved, they have HACCP system implemented. Students are able to visit cutting, deboning, production of sausages, hams, cans and poultry slaughtering and processing.

4. Waste management

Agreement with special company 20t/year
Chapter VII – ANIMALS AND TEACHING MATERIAL OF ANIMAL ORIGIN

1. Factual information

Faculty provides service in the area of isolation and observation of homeless and wild animals suspected for potential rabies disease. Poland is not free from rabies. Animals are brought to the Department of Epizootiology and Veterinary Administration with Clinic in order to stay in isolation. This service is provided with cooperation with Wrocław Veterinary Inspection Office.

Number of cases annually:
2008 – 94
2007 – 132
2006 – 112
2005 - 109

1.1. Anatomy

The materials that are used in practical anatomical training come from farmers, from the slaughterhouse and veterinary clinic. The materials are stored in the cold for large and small animals.

Table VII.1 Material used in practical anatomical training

<table>
<thead>
<tr>
<th>animals</th>
<th>Dog</th>
<th>Ruminant</th>
<th>Equine</th>
<th>other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year</td>
<td>Year</td>
<td>Year</td>
<td>Year</td>
</tr>
<tr>
<td>Dog</td>
<td>60</td>
<td>80</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Ruminant</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Equine</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>other</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

1.2. Pathology

Table VII.2. Number of sections made in the last 3 years

<table>
<thead>
<tr>
<th>SPECIES</th>
<th>NUMBER OF necropsies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animals for slaughter</td>
<td>2007</td>
</tr>
<tr>
<td>cattle</td>
<td>2</td>
</tr>
<tr>
<td>small ruminants</td>
<td>2</td>
</tr>
<tr>
<td>pigs</td>
<td>7</td>
</tr>
<tr>
<td>Rother farm animals</td>
<td></td>
</tr>
<tr>
<td>Equine</td>
<td>1</td>
</tr>
<tr>
<td>Poultry</td>
<td>2900</td>
</tr>
<tr>
<td>Accompanying animals /</td>
<td>turtle - 1</td>
</tr>
<tr>
<td>Species</td>
<td>2006</td>
</tr>
<tr>
<td>-------------------------</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td><strong>a</strong></td>
</tr>
<tr>
<td>Bovine</td>
<td>100</td>
</tr>
<tr>
<td>Ovine, caprine</td>
<td>5</td>
</tr>
<tr>
<td>Porcine</td>
<td>0</td>
</tr>
<tr>
<td>Poultry, pet birds</td>
<td>185</td>
</tr>
<tr>
<td>Rabbit, pet rodents</td>
<td>651</td>
</tr>
<tr>
<td>Equine</td>
<td>138</td>
</tr>
<tr>
<td>Canine</td>
<td>8716</td>
</tr>
<tr>
<td>Feline</td>
<td>7271</td>
</tr>
<tr>
<td>Reptiles &amp; amphibians</td>
<td>175</td>
</tr>
</tbody>
</table>
### Ratios

**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**

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Denominator</th>
<th>Formula</th>
<th>Numerator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R 11:</td>
<td>No. of students graduating annually</td>
<td>1</td>
<td>No. of food-producing animals seen at the faculty</td>
<td>2.0 : 0.5</td>
</tr>
<tr>
<td>R 12:</td>
<td>No. of students graduating annually</td>
<td>1</td>
<td>No. of individual food-animal consultations outside the faculty</td>
<td>0.48 : 2.1</td>
</tr>
<tr>
<td>R 13:</td>
<td>No. of students graduating annually</td>
<td>1</td>
<td>No. of herd health</td>
<td>0.91 : 1.1</td>
</tr>
<tr>
<td>R 14:</td>
<td>No. of students graduating annually</td>
<td>1</td>
<td>No. of equine cases</td>
<td>0.5 : 2.0</td>
</tr>
<tr>
<td>R 15:</td>
<td>No. of students graduating annually</td>
<td>1</td>
<td>No. of poultry/rabbit cases</td>
<td>0.38 : 2.63</td>
</tr>
<tr>
<td>Equation</td>
<td>Description</td>
<td>Value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R 16: [ \frac{\text{No. of companion animals seen at Faculty}}{\text{No. of students Graduating annually}} = \frac{0.01}{1} : 100 ]</td>
<td>No. of companion animals seen at Faculty</td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R 17: [ \frac{\text{Poultry/rabbits seen}}{\text{No. of students Graduating annually}} = \frac{3.7}{1} : 0.27 ]</td>
<td>Poultry/rabbits seen</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table VI.6: **Animals available for necropsy**

<table>
<thead>
<tr>
<th>Equation</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R 18: [ \frac{\text{No. necropsies food prod. Animals+equines}}{\text{No. of students Graduating annually}} = \frac{11}{1} : 0.09 ]</td>
<td>No. necropsies food prod. Animals+equines</td>
<td>11</td>
</tr>
<tr>
<td>R 19: [ \frac{\text{No. poultry/rabbits}}{\text{No. of students Graduating annually}} = \frac{0.06}{1} : 16.7 ]</td>
<td>No. poultry/rabbits</td>
<td>0.06</td>
</tr>
<tr>
<td>R 20: [ \frac{\text{No. necropsies companion anim.}}{\text{No. of students Graduating annually}} = \frac{0.88}{1} : 1.14 ]</td>
<td>No. necropsies companion anim.</td>
<td>0.88</td>
</tr>
</tbody>
</table>
Chapter VIII – LIBRARY and LEARNING RESOURCES

1. Factual information

Library is common for all faculties of our University. It is also available for public and students from other universities. Some departments have their own small libraries (2000-4000 books and journals specific for disciplines). Now library works on digitalization of academic books.

Library has its own head who has an advisory voice in the Senate of University. Library has also Library Committee. Committee comprises following members: Head, Vice-Head, and one representatives from every Faculty of our University. Meetings of the Committee are organizes 3-4 times a year (or in there is a need) in order to discuss all library matters of relevance of University like, new subscriptions to periodicals, budget and personnel, allocation of founds and scientific information data

Annual budget for library:

<table>
<thead>
<tr>
<th></th>
<th>PLN</th>
<th>EURO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>1 900 000,00</td>
<td>475 000,00</td>
</tr>
<tr>
<td>2007</td>
<td>1 800 000,00</td>
<td>425 570,00</td>
</tr>
<tr>
<td>2006</td>
<td>1 764 000,00</td>
<td>464 210,00</td>
</tr>
<tr>
<td>2005</td>
<td>1 732 000,00</td>
<td>494 850,00</td>
</tr>
</tbody>
</table>

Budget is devoted to buying books, journals and data bank servicing, preservation of volumes, computer equipment with software, operating costs, office equipment and repairing.

Number of full time employee: 33
Full time equivalents of part time employees: 0,5
Number of journals received each year: 99 (printed edition), 7723 (electronic edition)
Number of students reading places:
- main reading room: 42
- Informational Journal reading room: 3
- journals reading room: 8
Operating hours:

Lending library room

<table>
<thead>
<tr>
<th></th>
<th>Monday-Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>academic year</td>
<td>8 A.M – 6 P.M.</td>
<td>10 A.M. – 5 P.M.</td>
</tr>
<tr>
<td>vacation</td>
<td>8 A.M. – 3 P.M.</td>
<td>-----------</td>
</tr>
</tbody>
</table>

Reading room

<table>
<thead>
<tr>
<th></th>
<th>Monday-Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>academic year</td>
<td>8 A.M – 6 P.M.</td>
<td>10 A.M. – 5 P.M.</td>
</tr>
<tr>
<td>vacation</td>
<td>8 A.M. – 3 P.M.</td>
<td>-----------</td>
</tr>
</tbody>
</table>

Computer Data Bank: available Monday- Friday from 8. A.M to 3 P.M.
On Sundays library is closed. Also in August library is closed.

Number of loans per student in academic year: 44 817
On-line service available (loans).

Computerised document search system: ALEPH and 15 others (www.up.wroc.pl)
Audio-visual service is common for all 5 faculties. There are 4 people full-time working in this section. They produce didactic films for specific use (DVD, CD, VHS, SVHS, and other formats). Area of audio-visual service units about 75 square meters.
Audio-visual service is available for users in Client Service Centre (32 VHS).

2. Comments
The opening hour, places in reading room and number of journal are sufficient for academic purposes. However number of item per title is sometimes insufficient.
Too many people working in that unit.

3. Suggestions
To pay much more attention to develop service and effectiveness of operating hour.
Chapter IX – ADMISSION AND ENROLMENT

1. Factual information

Table IX.1.1. Undergraduate student composition

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Total number of undergraduate students</td>
<td>1229</td>
</tr>
<tr>
<td>b</td>
<td>Male students</td>
<td>310</td>
</tr>
<tr>
<td>c</td>
<td>Female students</td>
<td>919</td>
</tr>
<tr>
<td>d</td>
<td>Nationals</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Foreign students</td>
<td>8</td>
</tr>
<tr>
<td>f</td>
<td>- from EU countries</td>
<td>7</td>
</tr>
<tr>
<td>g</td>
<td>- from non-EU countries</td>
<td>1</td>
</tr>
<tr>
<td>f</td>
<td>1st year students</td>
<td>197</td>
</tr>
<tr>
<td>g</td>
<td>2nd year students</td>
<td>207</td>
</tr>
<tr>
<td>h</td>
<td>3rd year students</td>
<td>250</td>
</tr>
<tr>
<td>i</td>
<td>4th year students</td>
<td>221</td>
</tr>
<tr>
<td>j</td>
<td>5th year students</td>
<td>220</td>
</tr>
<tr>
<td>k</td>
<td>6th year students</td>
<td>144</td>
</tr>
<tr>
<td>l</td>
<td>Students not in any specific year</td>
<td>none</td>
</tr>
</tbody>
</table>

IX.2. Student admission

One year before academic year starts Senat of our University makes up a decision about numbers of places in every study disciplines and rules of enrollment.

Candidates for veterinary study must pass finish high school examination called “matura” from subjects:

- biology – minimum 50% of overstandard high school maximum point level
- chemistry - minimum 50% of overstandard high school maximum point level

Candidates who pass “matura” examination according to old rules (before 2005) has to write an entrance test with biology and chemistry.

After the exams the ranking list is made. Candidates who did not achieved enough results to enter non-paid truck study can apply for paid truck study. There is no differences between this two ways of study. Paid trucks end after 6th semester and than student is automatically
transferred to non-paid truck. Decision about starting with paid study was made after big discussion within the Faculty. In that time (year 2003/2004) and was accepted by Senat of Wroclaw University of Environmental and Life Sciences. There was a danger of financial collapse of the faculty what might affect teaching process and research areas. That situation was a result of unbalanced ministerial financing system that do not reflect the cost of student education in a proper way. According to Polish government policy costs of higher education are covered in 70% by Ministry of Education and 30% University has to obtain from other sources.

Table IX.2. Intake of veterinary students.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number applying for admission</th>
<th>Standard intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>1170</td>
<td>186</td>
</tr>
<tr>
<td>2007</td>
<td>1210</td>
<td>209</td>
</tr>
<tr>
<td>2006</td>
<td>1358</td>
<td>221</td>
</tr>
<tr>
<td>2005</td>
<td>1270</td>
<td>207</td>
</tr>
<tr>
<td>2004</td>
<td>*</td>
<td>260</td>
</tr>
<tr>
<td>2003</td>
<td>*</td>
<td>174</td>
</tr>
<tr>
<td>2002</td>
<td>*</td>
<td>181</td>
</tr>
<tr>
<td>2001</td>
<td>*</td>
<td>169</td>
</tr>
<tr>
<td>2000</td>
<td>*</td>
<td>173</td>
</tr>
<tr>
<td>1999</td>
<td>*</td>
<td>175</td>
</tr>
</tbody>
</table>

* number of candidates for one place differs in each year (between 5-11 person per place).

Table IX.3.1 Student flow

<table>
<thead>
<tr>
<th>b</th>
<th>First year</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>c</td>
<td>Second year</td>
<td>-</td>
</tr>
<tr>
<td>d</td>
<td>Third year</td>
<td>3</td>
</tr>
<tr>
<td>e</td>
<td>Fourth year</td>
<td>19</td>
</tr>
<tr>
<td>f</td>
<td>Fifth year</td>
<td>221</td>
</tr>
<tr>
<td>g</td>
<td>How many have graduated</td>
<td>-</td>
</tr>
<tr>
<td>h</td>
<td>How many have dropped out or been asked to leave</td>
<td>7</td>
</tr>
<tr>
<td>i</td>
<td>How many are not in any identifiable year</td>
<td>-</td>
</tr>
</tbody>
</table>
Table IX.3.2. Number of students graduating annually (from undergraduate training over the past five years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number graduating</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>163</td>
</tr>
<tr>
<td>2007</td>
<td>165</td>
</tr>
<tr>
<td>2006</td>
<td>137</td>
</tr>
<tr>
<td>2005</td>
<td>158</td>
</tr>
<tr>
<td>2004</td>
<td>146</td>
</tr>
</tbody>
</table>

Table IX.3.3 Average duration of studies

<table>
<thead>
<tr>
<th>Duration of attendance</th>
<th>number</th>
</tr>
</thead>
<tbody>
<tr>
<td>k 4 years</td>
<td>-</td>
</tr>
<tr>
<td>l 5 years</td>
<td>139</td>
</tr>
<tr>
<td>m 6 years</td>
<td>15</td>
</tr>
<tr>
<td>n 7 years</td>
<td>7</td>
</tr>
<tr>
<td>o 8 years</td>
<td>2</td>
</tr>
<tr>
<td>p 9 years</td>
<td>-</td>
</tr>
<tr>
<td>q 10-13 years</td>
<td>-</td>
</tr>
<tr>
<td>r More than 13 years</td>
<td>-</td>
</tr>
</tbody>
</table>

Student is allowed to progress to the next year after passing all exams and practical training including extramural part of studies. However sometimes student who does not pass the subject that is not recognized by Dean as a “critical” for curriculum can be allowed to progress to the next year under condition of repeating that subject during the academic year. Fortunately we do not have the situation to ask the student to leave.

2. Comments

Number of students starting the first year is to high from teaching point of view. In the other hand Polish high education financing system is constructed according to simple but illogic rule: more student you enrolled more money you get”.

142
Number of enrolled student impact on the number of students in groups (practical training, supervised work, clinical work). Number of academic staff working in our faculty is more less stable for 15 years. But number of students systematically increases.

Present staff have about 30%-50% more work to in comparison to the previous years.

It must reflect on the teaching quality according to the rule “quality or quantity” – you can’t have both. On our faculty there are subject that student call “critical” – anatomy, histology, biochemistry, pathological anatomy. This subjects are difficult for itself and sometimes make students repeat the year of study. In that case student repeats only that subject that failed.

Number of students graduating each year is too high for country like Poland. We have four Faculties of Veterinary Medicine in Poland – average number of new graduates per year is about 700. Polish Chamber of Veterinary Surgeons some years ago performed studies about market for veterinary profession that shows that about 350-400 new graduates per year is enough for country (including inside EU vet migration).

Percentage of students that graduate each year does not show any critical situation.

Procedures of creating a ranking list is clear and easy for candidates and is a proper way to enroll best prepared person to Faculty of Veterinary Medicine.

3. Suggestion

Number of student enrolled for first year should be decreased to ensure good quality standard education. Improving ministerial financing system of higher education. Faculty should cooperate more closely with the industry and make service more available (scientific and common veterinary service).
Chapter X – ACADEMIC AND SUPPORT STAFF

1. Factual information

Table X.1. Personnel in the establishment

<table>
<thead>
<tr>
<th>Total number of academic staff:</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full professors</td>
<td>22</td>
</tr>
<tr>
<td>Associate professor</td>
<td>2</td>
</tr>
<tr>
<td>Assistant professor habilitation</td>
<td>9</td>
</tr>
<tr>
<td>Assistant professor</td>
<td>56</td>
</tr>
<tr>
<td>Senior research assistant</td>
<td>5</td>
</tr>
<tr>
<td>Research assistant</td>
<td>6</td>
</tr>
<tr>
<td>Technician and animal care takers</td>
<td>69</td>
</tr>
</tbody>
</table>

Only 5 person from academic staff are not veterinary surgeons.

Table X.1 Personnel in the establishment provided for veterinary training

<table>
<thead>
<tr>
<th>BUDGETED POSTS (FTE)</th>
<th>VS</th>
<th>NVS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ACADEMIC STAFF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching staff (total FTE)</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>Total FTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. SUPPORT STAFF</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Responsible for the care and treatment of animals</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Responsible for the preparation of practical and clinical teaching</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Responsible for administration</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Engaged in research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others-lab workers</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>3. TOTAL STAFF</td>
<td>169</td>
<td></td>
</tr>
</tbody>
</table>

Academic staff works on full-time, there are rare situation to employ part-time academic staff.

One full professor and one assistant professor with habilitation work also full-time in Polish Academy of Science.

Table X.2. Allocation of personnel to the various departments
1. Department of Animal Anatomy and Histology
2. Department of Biochemistry, Pharmacology and Toxicology
3. Department of Physiology
4. Department of Pathological Anatomy, Physiopathology, Microbiology and Forensic Veterinary Medicine
5. Department of Food Hygiene and Consumer Health Care
6. Department of Epizootiology and Veterinary Administration with Epizootiology Clinic
7. Department of Internal and Parasitic Diseases with Clinic of Horses, Dogs and Cats
8. Department and Clinic Obstetric, Ruminant Diseases and Animal Health Care
9. Department and Clinic of Surgery

Tab. X.3 Ratios students/staff

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. No. total academic FTE in vet. training
   \[ \frac{\text{No. undergraduate vet. students}}{\text{No. of total FTE at Faculty}} = \frac{1}{1} : \frac{12.3}{0.081} \]

2. No. undergraduate Students at faculty.
   \[ \frac{\text{Denominator}}{\text{Denominator}} = \frac{1}{1} : \frac{7.25}{0.138} \]
No. total VS FTE in vet. training

R 3: \( \frac{\text{No. undergraduate Veterinary students.}}{0.08} = \frac{1}{12.5} \)

No. total VS FTE in vet. training

R 4: \( \frac{\text{No. students graduating annually.}}{0.62} = \frac{1}{1.61} \)

No. total FTE academic staff in vet. training

R 5: \( \frac{\text{No. total FTE support staff In Veterinary training.}}{1.45} = \frac{1}{0.7} \)
Chapter XI – CONTINUING EDUCATION

1. Factual information
Poland has no regulations in that matters so there is no obligation for doctors of veterinary medicine to continue education (?!).
Faculty organizes many conferences, congresses and practical training or workshops. This activity depends on the organizer and the person in charge.

DISTANCE LEARNING
Faculty does not provide such a system. We are standing on the position that unique characteristic of the medicine profession is not to be turn to distance-learning. There are no areas in the practical way of teaching that could be taught via internet.

2. Comments
It is a sad information but according to Polish assessment system of scientists (who are the academic teachers!) it does not take under consideration teaching activity. So that is another reason why this very important for the profession activity is not being strongly developed.
In the other hand there is a need from practitioners to develop professional knowledge and get new experiences. There is a visible abyss between scientific work on the Faculty and demands of veterinary profession on the free market service.

3. Suggestion
Two main changes:
- regulation on national level about continuing education,
- assessment system focused not only on “scientific work”.
1. Factual information

VETERINARY SPECIALIZATION

It is possible to get a title of “specialist” after post-diploma study held at the Faculty. In Poland there is 17 disciplines that doctors of veterinary medicine can apply for such a title:

1. Diseases of dogs and cats
2. Surgery
3. Animal reproduction
4. Diseases of ruminants
5. Diseases of swine
6. Diseases of horses
7. Diseases of bees
8. Diseases of fish
9. Diseases of fur animals
10. Diseases of wild living animals
11. Veterinary radiology
12. Laboratory animals pathology
13. Epizootiology and veterinary administration
14. Laboratory diagnostics
15. Veterinary prophylaxis and feed hygiene
16. Poultry and pet birds diseases
17. Slaughter animals and food of animal origin hygiene.

On our faculty specializations number 1, 2, 3, 13, 14, 15, 16, 17 are held. Group must have at least 25 person to start the study. Specialization study lasts from 4 to 6 semesters – depending on the discipline. Having finished the course doctor of veterinary medicine is able to pass the final exam in front of the national examination committee in Pulawy (Polish Research Veterinary Institute). Specialization study are paid by participants about 400-500 EURO per semester. Faculty is only the place of realization of the study programme. Programmes are constructed by Polish Research Veterinary Institute located in Pulawy.

DOCTORAL STUDIES

Since 1995 on our Faculty there are doctoral studies. Students have to conduct scientific research and finish the study with doctoral dissertation. Doctoral dissertation is sent to two
professors. Two positive opinions allow students to pass exams: discipline, foreign language and philosophy. If there are positive remarks students defend their doctoral thesis. Events are open for anybody and the Faculty has to inform public about time and place dissertation. After positive finish of the event Faculty Council gives the degree of “doctor of veterinary medicine – philosophy doctor” in a secret ballot. Student of doctoral studies has to teach undergraduate students on the faculty 90 hour per academic year beginning from second year. Candidates for doctoral studies has to finish regular study on disciplines like veterinary medicine, pharmacy, biology or biotechnology. Student are given doctoral stipendium every month. They can apply for grants from National Research Committee.

Enrolment procedures.

Enrolment is based on the point-oriented system and interview with the candidate.

Points:
- education (disciplines) 0-10
- average study grade 2-10
- final diploma grade 5-10
- foreign language skill 2-10
- research activity 0-10
- abroad experiences 0-10

After counting all factors ranking list is created. Minimum points to be accepted is 41.

Number of places changes annually and is created by Faculty Council (i.e. 2007/8 – 17, 2008/9 – 16).

Number of doctoral students in academic year 2008/2009 – 43.

<table>
<thead>
<tr>
<th>Year of doctoral studies</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>first</td>
<td>8</td>
</tr>
<tr>
<td>second</td>
<td>4</td>
</tr>
<tr>
<td>third</td>
<td>17</td>
</tr>
<tr>
<td>fourth</td>
<td>14</td>
</tr>
</tbody>
</table>

In every department there are doctoral students so they work in the field of department research activity.

**2. Comments**
Doctoral students are best of the students with excellent theoretical and practical knowledge. They take part in research projects and grants and publish their results in good scientific journals. Having finished doctoral study they start own practice or are employed on the Faculty or other institutions and companies.
Chapter XIII – RESEARCH

1. Factual information
On our faculty students are active student’s research units in active in 14 sections:

1. Anatomy
2. Prophylaxis and immunology
3. Exotic pets
4. Cardiology
5. Gastroenterology
6. Dermatology
7. Oncology
8. Neurology
9. Animal breeding
10. Surgery
11. Microbiology
12. Physiology
13. Biochemistry
14. Equine diseases

40 students are involved in such a activity.

2. Comments
There are no special funds for these activity. Students take part in statutory research with academic staff or work with non-cost parts of research.

3. Suggestion
Special grants should be established for student’s research units.