STRATEGY FOR DEVELOPMENT OF VETERINARY EDUCATION TO PREPARE VETERINARIANS FOR LABOR MARKET
Higher Education Enhancement Project Fund (HEEPF)
Project Management Unit (PMU)
STRATEGY FOR DEVELOPMENT OF VETERINARY EDUCATION TO PREPARE VETERINARIANS FOR LABOR MARKET

Preface: -
We are pleased to present this strategy as a main policy to improve the veterinary education especially those concerned with preparation of veterinarians for the labor market as a main issue and activity for enhancement of higher education.

Purpose of the strategy: -

1. Offering new advances in development of veterinary education including comprehensive description of the process and methods used in this aspect.

2. The strategy will deal with the rigorous and systemic process of quality assurance system to be a guide in any developmental processes especially those concerned with program specification, course specification, academic standards and at the same time determine the mission of the development concerned in this process.

3. Adopting plan and decision on the bases of veterinary development built on recognizing of the commitment which responds to changing needs in addition to optimizing the development to knowledge and practical skills.

4. Raise the awareness among faculty members.

5. Enhancement of the education process and change its prospective from limited time education to continuous education, from rigidity to flexibility, from recall of information to innovation, from use of knowledge to production of knowledge, from dependant learning to self independent learning and critical thinking.
Project activities

Need Analysis:

- Enhancement of the skills of the veterinary graduates is an urgent requirement and represents the core goal of the project in order qualify the recent graduates for competition at labor market both nationally and internationally.
- In order to fulfill this goal we had first to determine the size of the problem that new graduates face in at the beginning of their career, to be able to develop and establish a reliable system for the enhancement of the graduate skills via improvement of their training programs.
- The project activity started by issuing a set of questionnaires that targeted the following groups:
  - Veterinary field stockholders
  - Expert field veterinarians
  - Recent veterinary graduates
  - Final years students
- Moreover, the project management and implementation team members hold a series of meetings with final years students as well as recent graduates to discuss the proposed activities of the project and to explore their opinions on the current teaching and training programs offered by the faculty and whether they are sufficient or need improvement and enhancement.
- The overall aim of these questionnaires and student meetings was to obtain a clear vision and realistic picture about the current professional skills level of the recent graduates, to evaluate their performance and to determine the
shortage areas that need to be manipulated in the training program to be proposed by the project.

- The group of questionnaires that was directed to the stockholders and expert veterinarians aimed to evaluate the performance of the recent veterinarians and to determine the shortage areas in their professional skills as well as to explore the suggested opinions for the enhancement and qualification of the graduates.
- The second group of questionnaires was directed to the recent graduates themselves as well as the final year students to explore their opinions and get their feedback about current training programs, teaching methods, evaluation and assessment tools, availability of information sources, availability of practical training and laboratory facilities as well as getting their suggestions for the enhancement and improvement of these programs.

**Questionnaires results assessment:**

The following shows some examples of the issued questionnaires for both stockholders, expert field veterinarians as well as recent veterinary school graduates and final years students. It includ also examples of the project team meetings and discussion session with the 4th and fifth year students of the faculty.
A) Results of stockholders and expert veterinarians questionnaires about the performance of recent veterinarians:

Faculty of Veterinary Medicine
Questionnaire about performance of recent Veterinary graduate

Place of work:
Work: ………………… Address: …………………
Nature of work: ………………… Size of work: …………………
Profession: …………………

1. What is your evaluation of the recent Veterinary Graduate?

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Able to work after graduation</td>
<td>15%</td>
</tr>
<tr>
<td>Needs some training before work</td>
<td>55%</td>
</tr>
<tr>
<td>Needs extensive training before work</td>
<td>30%</td>
</tr>
</tbody>
</table>

2. Do you have the suitable facilities to enable his efficient performance?

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>23%</td>
</tr>
<tr>
<td>To some extent</td>
<td>48%</td>
</tr>
<tr>
<td>No</td>
<td>29%</td>
</tr>
</tbody>
</table>

3. What are the shortages in recent graduate performance?

<table>
<thead>
<tr>
<th>Shortage</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortage in information</td>
<td>25%</td>
</tr>
<tr>
<td>Deficiency in professional skills</td>
<td>60%</td>
</tr>
<tr>
<td>Absence of management experiences</td>
<td>15%</td>
</tr>
</tbody>
</table>

4. Do you think that Veterinary faculty is the best place for training and enhancement of these capabilities to work?

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>62%</td>
</tr>
<tr>
<td>May be</td>
<td>14%</td>
</tr>
<tr>
<td>No</td>
<td>24%</td>
</tr>
</tbody>
</table>
5. If your answer is No, the cause or causes are:
   - We have the training capabilities 10%
   - The work time is not enough for training outside the workplace 12%
   - I don't know if the faculty can perform the training 78%

6. Is there any kind of communication and cooperation between you and the faculty?
   Yes 23% To some extent 18% No 59%

   - If the answer is No, please mention the cause:
     …...Absence of awareness programs........

7. Do you like cooperate with the faculty in the enhancement of the recent graduate?
   Yes 81% To some extent 12% No 7%

   - If the answer is yes:
     The training should be in the workplace 23% The training should be in the faculty 77%

8. If the training should be in the workplace, who should be responsible for it?
   Veterinarians 48% Acquired by the practice and experience 52%

9. Are you ready to receive the students for training?
   Yes 23% To some extent 25% No 52%
10. What are your ideas about the education program of the faculty?

- Suitable and sufficient: 21%
- Needs minor changes: 33%
- Needs major changes: 46%

11. What are the most beneficial subject for work?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Medicine</td>
<td>33%</td>
</tr>
<tr>
<td>Surgery</td>
<td>17%</td>
</tr>
<tr>
<td>Poultry diseases</td>
<td>42%</td>
</tr>
<tr>
<td>Fish diseases</td>
<td>8%</td>
</tr>
</tbody>
</table>

12. Do you see certain necessities for post graduate studies for the veterinarians works in your institutions?

- Yes: 31%
- To some extent: 26%
- No: 43%

13. If the answer yes, what are the subjects to be studied?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Medicine</td>
<td>26%</td>
</tr>
<tr>
<td>Surgery</td>
<td>14%</td>
</tr>
<tr>
<td>Poultry diseases</td>
<td>53%</td>
</tr>
<tr>
<td>Fish diseases</td>
<td>7%</td>
</tr>
</tbody>
</table>

14. Do the faculty perform their responsibilities in the field of environmental affairs?

- Yes: 35%
- To some extent: 45%
- No: 20%

- If the answer is No, Place state the cause:
  - Need more site visit to animal production farms.
  - More announcements about the available services.
  - Increase the frequency of veterinary campaign
Results evacuation of questionnaires of final year students and recent veterinarians about the current training and teaching program:

Faculty of Veterinary Medicine
Final Years student's and recent veterinarians Questionnaire
2004/2005

I. Department notes
1) Is there a source (book or book note) for studying the following courses?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>81.25%</td>
<td>81.25%</td>
<td>100%</td>
<td>100%</td>
<td>81.25%</td>
</tr>
<tr>
<td>No</td>
<td>18.75%</td>
<td>18.75%</td>
<td>0</td>
<td>0</td>
<td>18.75%</td>
</tr>
</tbody>
</table>

2) Are the contents of the books similar to that given in the lectures?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>6.25%</td>
<td>12.5%</td>
<td>68.75%</td>
<td>43.75%</td>
<td>65.25%</td>
</tr>
<tr>
<td>To some Extent</td>
<td>62.5%</td>
<td>65.25%</td>
<td>12.5%</td>
<td>37.5%</td>
<td>31.25%</td>
</tr>
<tr>
<td>More</td>
<td>12.5%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>0</td>
</tr>
<tr>
<td>Less</td>
<td>18.75%</td>
<td>18.75%</td>
<td>6.25%</td>
<td>6.25%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

3) Writing pattern of the books?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy</td>
<td>31.25%</td>
<td>25%</td>
<td>31.25%</td>
<td>31.25%</td>
<td>37.5%</td>
</tr>
<tr>
<td>Reasonable</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>56.25%</td>
</tr>
<tr>
<td>Difficult</td>
<td>18.75%</td>
<td>25%</td>
<td>18.75%</td>
<td>18.75%</td>
<td>6.25%</td>
</tr>
</tbody>
</table>

4) Is there a source of the practical part?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>31.5%</td>
<td>31.5%</td>
<td>25%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>No</td>
<td>68.75%</td>
<td>68.75%</td>
<td>75%</td>
<td>75%</td>
<td>50%</td>
</tr>
</tbody>
</table>

5) University book price

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expensive</td>
<td>50%</td>
<td>37.5%</td>
<td>37.5%</td>
<td>37.5%</td>
<td>37.5%</td>
</tr>
<tr>
<td>Reasonable</td>
<td>43.75%</td>
<td>56.25%</td>
<td>56.25%</td>
<td>56.25%</td>
<td>50%</td>
</tr>
<tr>
<td>Cheap</td>
<td>6.25%</td>
<td>6.25%</td>
<td>6.25%</td>
<td>6.25%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

II. Faculty members
1) Do Faculty members come to class on time?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>93.75%</td>
<td>93.75%</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6.25%</td>
<td>6.25%</td>
</tr>
</tbody>
</table>

2) Do faculty members explain subjects of courses in logical orders?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>75%</td>
<td>87.25%</td>
<td>100%</td>
<td>87.25%</td>
<td>93.75%</td>
</tr>
<tr>
<td>No</td>
<td>25%</td>
<td>25%</td>
<td>18.75%</td>
<td>12.5%</td>
<td>6.25%</td>
</tr>
</tbody>
</table>

3) Do faculty members answer questions in class?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>87.25%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>93.75%</td>
</tr>
<tr>
<td>No</td>
<td>12.5%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6.25%</td>
</tr>
</tbody>
</table>

4) Do faculty members allow students to ask questions during or after classes?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>During</td>
<td>93.75%</td>
<td>87.25%</td>
<td>81.25%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>After</td>
<td>6.25%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

5) What do you think about the way the faculty display subjects of courses?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy</td>
<td>18.75%</td>
<td>37.5%</td>
<td>6.25%</td>
<td>43.75%</td>
<td>37.5%</td>
</tr>
<tr>
<td>Reasonable</td>
<td>62.5%</td>
<td>50%</td>
<td>75%</td>
<td>43.75%</td>
<td>56.25%</td>
</tr>
<tr>
<td>Unclear</td>
<td>18.75%</td>
<td>12.5%</td>
<td>18.75%</td>
<td>12.5%</td>
<td>6.25%</td>
</tr>
</tbody>
</table>

6) Do faculty members give suitable examples to simplify subjects?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>68.75%</td>
<td>62.5%</td>
<td>50%</td>
<td>62.5%</td>
<td>62.5%</td>
</tr>
<tr>
<td>No</td>
<td>31.25%</td>
<td>37.5%</td>
<td>50%</td>
<td>37.5%</td>
<td>37.5%</td>
</tr>
</tbody>
</table>

7) Do faculty member offer a time at the end of lectures for discussion or skip time?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>31.25%</td>
<td>43.75%</td>
<td>31.25%</td>
<td>37.5%</td>
<td>56.25%</td>
</tr>
<tr>
<td>No</td>
<td>43.75%</td>
<td>50%</td>
<td>50%</td>
<td>43.75%</td>
<td>31.25%</td>
</tr>
<tr>
<td>extra time</td>
<td>25%</td>
<td>6.25%</td>
<td>18.75%</td>
<td>18.75%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

8) Do faculty members encourage students to visit libraries?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>50%</td>
<td>56.25%</td>
<td>37.5%</td>
<td>56.25%</td>
<td>62.5%</td>
</tr>
<tr>
<td>No</td>
<td>50%</td>
<td>43.75%</td>
<td>62.5%</td>
<td>43.75%</td>
<td>37.5%</td>
</tr>
</tbody>
</table>
Higher Education Enhancement Project Fund (HEEPF)
Project Management Unit (PMU)

9) Do faculty members use multimedia in lecturing?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>81.25%</td>
<td>68.75%</td>
<td>62.5%</td>
<td>93.75%</td>
<td>87.5%</td>
</tr>
<tr>
<td>No</td>
<td>18.75%</td>
<td>31.25%</td>
<td>37.5%</td>
<td>6.25%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

10) How do Faculty members deal with students?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friendly</td>
<td>12.5%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>31.25%</td>
<td>31.25%</td>
</tr>
<tr>
<td>Reasonable</td>
<td>75%</td>
<td>81.25%</td>
<td>68.75%</td>
<td>62.5%</td>
<td>56.25%</td>
</tr>
<tr>
<td>Difficult</td>
<td>12.5%</td>
<td>6.25%</td>
<td>18.75%</td>
<td>6.25%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

11) Do faculties have office hours to solve student's problems?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>56.25%</td>
<td>50%</td>
<td>43.75%</td>
<td>56.25%</td>
<td>56.25%</td>
</tr>
<tr>
<td>No</td>
<td>43.75%</td>
<td>50%</td>
<td>56.25%</td>
<td>43.75%</td>
<td>43.75%</td>
</tr>
</tbody>
</table>

III. Demonstrators

1) Do demonstrators come to class /lab on time?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>87.5%</td>
<td>100%</td>
<td>93.75%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>No</td>
<td>12.5%</td>
<td>0%</td>
<td>6.25%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

2) How do demonstrators deal with students?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friendly</td>
<td>75%</td>
<td>62.5%</td>
<td>50%</td>
<td>68.75%</td>
<td>50%</td>
</tr>
<tr>
<td>Fair</td>
<td>18.75%</td>
<td>37.5%</td>
<td>43.75%</td>
<td>31.25%</td>
<td>50%</td>
</tr>
<tr>
<td>Hard</td>
<td>6.25%</td>
<td>0%</td>
<td>6.25%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

3) Do demonstrators help students in understanding difficult issues?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>87.5%</td>
<td>93.75%</td>
<td>75%</td>
<td>87.5%</td>
<td>87.5%</td>
</tr>
<tr>
<td>No</td>
<td>12.5%</td>
<td>6.25%</td>
<td>25%</td>
<td>12.5%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

IV. Technicians

1) Is there a technician in the lab?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>100%</td>
<td>100%</td>
<td>87.5%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>No</td>
<td>0%</td>
<td>0%</td>
<td>12.5%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

2) What do you think about technician's cooperation with students?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
</table>
Higher Education Enhancement Project Fund (HEEPF)
Project Management Unit (PMU)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>81.25%</th>
<th>87.5%</th>
<th>81.25%</th>
<th>87.5%</th>
<th>87.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>18.75%</td>
<td>12.5%</td>
<td>18.75%</td>
<td>12.5%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

V. Workers
1) Is there a worker in the lab?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

2) What do you think about technician's cooperation with students?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>93.75%</td>
<td>93.75%</td>
<td>87.5%</td>
<td>93.75%</td>
<td>93.75%</td>
</tr>
<tr>
<td>No</td>
<td>6.25%</td>
<td>6.25%</td>
<td>12.5%</td>
<td>6.25%</td>
<td>6.25%</td>
</tr>
</tbody>
</table>

VI. Laboratories
1) Are facilities, equipments and chemicals sufficient for practical part performance?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sufficient</td>
<td>25%</td>
<td>37.5%</td>
<td>31.25%</td>
<td>37.5%</td>
<td>31.25%</td>
</tr>
<tr>
<td>Insufficient</td>
<td>75%</td>
<td>62.5%</td>
<td>62.5%</td>
<td>62.5%</td>
<td>62.5%</td>
</tr>
<tr>
<td>Not found</td>
<td>0</td>
<td>0</td>
<td>6.25%</td>
<td>0</td>
<td>6.25%</td>
</tr>
</tbody>
</table>

2) Are there multimedia for demonstration?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Found</td>
<td>68.75%</td>
<td>68.75%</td>
<td>68.75%</td>
<td>75%</td>
<td>68.75%</td>
</tr>
<tr>
<td>Not found</td>
<td>31.25%</td>
<td>31.25%</td>
<td>31.25%</td>
<td>25%</td>
<td>31.25%</td>
</tr>
</tbody>
</table>

VII. Academic hours
1) Do class hours enough for the contents of the subjects?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sufficient</td>
<td>75%</td>
<td>37.5%</td>
<td>12.5%</td>
<td>50%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Less</td>
<td>18.25%</td>
<td>50%</td>
<td>25%</td>
<td>37.5%</td>
<td>31.25%</td>
</tr>
<tr>
<td>More</td>
<td>6.25%</td>
<td>12.5%</td>
<td>62.5%</td>
<td>12.5%</td>
<td>56.5%</td>
</tr>
</tbody>
</table>

2) Do practical hours enough for the contents of the subjects?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sufficient</td>
<td>43.75%</td>
<td>56.25%</td>
<td>31.25%</td>
<td>37.5%</td>
<td>50%</td>
</tr>
<tr>
<td>Less</td>
<td>68.75%</td>
<td>31.25%</td>
<td>50%</td>
<td>50%</td>
<td>43.75%</td>
</tr>
<tr>
<td>More</td>
<td>12.5%</td>
<td>12.5%</td>
<td>18.75%</td>
<td>25%</td>
<td>6.25%</td>
</tr>
</tbody>
</table>

VIII. Library
1) What do you think about the availability of the hand books?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal</th>
<th>Infectious</th>
<th>Animal</th>
<th>Surgery</th>
<th>Poultry</th>
</tr>
</thead>
</table>
Higher Education Enhancement Project Fund (HEEPF)  
Project Management Unit (PMU)

<table>
<thead>
<tr>
<th>Medicine</th>
<th>diseases</th>
<th>Hygiene</th>
<th>diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sufficient</td>
<td>68.75%</td>
<td>62.5%</td>
<td>62.5%</td>
</tr>
<tr>
<td>Not sufficient</td>
<td>31.25%</td>
<td>37.5%</td>
<td>31.25%</td>
</tr>
<tr>
<td>Not found</td>
<td>0</td>
<td>0</td>
<td>6.25%</td>
</tr>
</tbody>
</table>

2) Is there a note for the questions of the previous exams?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Found</td>
<td>31.25%</td>
<td>31.25%</td>
<td>31.25%</td>
<td>31.25%</td>
<td>31.25%</td>
</tr>
<tr>
<td>Not found</td>
<td>68.75%</td>
<td>68.75%</td>
<td>68.75%</td>
<td>68.75%</td>
<td>68.75%</td>
</tr>
</tbody>
</table>

3) What do you think about the availability of multimedia and computers in the library?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Found</td>
<td>25%</td>
<td>25%</td>
<td>31.5%</td>
<td>31.5%</td>
<td>31.5%</td>
</tr>
<tr>
<td>Not found</td>
<td>75%</td>
<td>75%</td>
<td>68.75%</td>
<td>68.75%</td>
<td>68.75%</td>
</tr>
</tbody>
</table>

IX. Exams

1) Do you prefer mid-term exam?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly</td>
<td>25%</td>
<td>25%</td>
<td>18.75%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Once</td>
<td>75%</td>
<td>75%</td>
<td>88.25%</td>
<td>75%</td>
<td>75%</td>
</tr>
</tbody>
</table>

2) What do you think about the evaluation system in mid-term exams?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>62.5%</td>
<td>88.25%</td>
<td>88.25%</td>
<td>88.25%</td>
<td>75%</td>
</tr>
<tr>
<td>Multiple</td>
<td>31.25%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>18.75%</td>
</tr>
<tr>
<td>Oral</td>
<td>6.25%</td>
<td>6.25%</td>
<td>0</td>
<td>6.25%</td>
<td>6.25%</td>
</tr>
<tr>
<td>On activity</td>
<td>0</td>
<td>0</td>
<td>6.25%</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

3) What is the way you prefer in doing practical exams?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory</td>
<td>50%</td>
<td>50%</td>
<td>43.75%</td>
<td>56.25%</td>
<td>50%</td>
</tr>
<tr>
<td>Lab and oral</td>
<td>25%</td>
<td>31.25%</td>
<td>25%</td>
<td>25%</td>
<td>18.75%</td>
</tr>
<tr>
<td>Sheet</td>
<td>25%</td>
<td>18.75%</td>
<td>31.25%</td>
<td>18.75%</td>
<td>31.25%</td>
</tr>
</tbody>
</table>

4) In your opinion, what is the suitable time preceding the final exam?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>One day</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Two days</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Three days</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
5) What do you think about the final year exam questions?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>From subjects contents</td>
<td>31.25%</td>
<td>43.75%</td>
<td>43.75%</td>
<td>43.75%</td>
<td>43.75%</td>
</tr>
<tr>
<td>Outside subjects contents</td>
<td>12.5%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Both</td>
<td>56.25%</td>
<td>56.25%</td>
<td>56.25%</td>
<td>56.25%</td>
<td>56.25%</td>
</tr>
</tbody>
</table>

6) What is your opinion in final year exam questions?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>12.5%</td>
<td>37.5%</td>
<td>43.75%</td>
<td>50%</td>
<td>37.5%</td>
</tr>
<tr>
<td>Indirect</td>
<td>25%</td>
<td>6.25%</td>
<td>6.25%</td>
<td>6.25%</td>
<td>6.25%</td>
</tr>
<tr>
<td>Both</td>
<td>62.5%</td>
<td>56.25%</td>
<td>50%</td>
<td>43.75%</td>
<td>56.25%</td>
</tr>
</tbody>
</table>

7) What is your opinion in the oral exams, does it evaluate standards?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Internal Medicine</th>
<th>Infectious diseases</th>
<th>Animal Hygiene</th>
<th>Surgery</th>
<th>Poultry diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>31.25%</td>
<td>31.25%</td>
<td>25%</td>
<td>31.25%</td>
<td>31.25%</td>
</tr>
<tr>
<td>No</td>
<td>68.75%</td>
<td>68.75%</td>
<td>75%</td>
<td>68.75%</td>
<td>68.75%</td>
</tr>
</tbody>
</table>

X. Things and issues preferable and un-preferable in the faculty or university?

<table>
<thead>
<tr>
<th>Time schedules</th>
<th>Faculty members</th>
<th>Demonstrators</th>
<th>Subjects</th>
<th>Students activities</th>
<th>Students Hostel</th>
<th>Dining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefer</td>
<td>62.5%</td>
<td>87.25%</td>
<td>93.75%</td>
<td>31.25%</td>
<td>37.5%</td>
<td>18.75%</td>
</tr>
<tr>
<td>Not prefer</td>
<td>37.5%</td>
<td>12.5%</td>
<td>6.25%</td>
<td>68.75%</td>
<td>62.5%</td>
<td>81.25%</td>
</tr>
</tbody>
</table>

X1. The preferable place for clinical training?

<table>
<thead>
<tr>
<th>Field training</th>
<th>Teaching hospital</th>
<th>Faculty farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.75%</td>
<td>25%</td>
<td>56.25%</td>
</tr>
</tbody>
</table>

X11. The benefit of the field training program?

<table>
<thead>
<tr>
<th>Very useful</th>
<th>Useful</th>
<th>Medium</th>
<th>Not useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>56.25%</td>
<td>25%</td>
<td>18.75%</td>
<td>0</td>
</tr>
</tbody>
</table>
Faculty of Veterinary Medicine

Final Years student's and recent veterinarians Questionnaire

1. **Department notes**
   a. Books and department notes of the courses were available in all subjects.
   b. Contents of the books were similar to given what were in lectures only in poultry diseases and zoonosis, but were not similar to some extent in the rest of courses.
   c. Writing style of the book was reasonable in all subjects.
   d. Sources of the practical part were available only in poultry diseases and obstetrics, while were unavailable in the rest of courses.
   e. Department notes prices were expensive in internal medicine and meat hygiene, while they were reasonable in other courses.

2. **Faculty members**
   a. The Faculty members come to class on time in all subjects.
   b. Explanations of subject courses were in logical orders in all subjects.
   c. Answering questions in class was done in all subjects.
   d. Allowance of students to ask questions is done in all subjects.
   e. The display of the faculty to subject's courses is reasonable in all subjects.
   f. The suitable example to simplify subjects was carried out nearly by all the subjects except meat hygiene.
   g. The faculty members offer time at the end of the lectures for discussion only in obstetrics.
   h. Encouragement of students to visit libraries was done in all subjects except in animal hygiene.
   i. The use of multimedia in lecturing was done in all subjects.
   j. The Faculty members deal with students in more or less reasonable manner.
   k. The Faculty members have office hours to solve students problems in all subjects except animal hygiene and meat hygiene.

3. **Demonstrators**
   a. The demonstrators come to class or laboratories on time.
   b. The demonstrators dealt with the students friendly except in meat hygiene and animal hygiene in which they dealt fair.
   c. The demonstrators helped students in understanding difficult issues in all subjects.

4. **Technicians.**
   a. In all subjects, there were workers in the laboratories.
b. The technician's co-operations with the students were done in all subjects.

5. **Laboratories**
   a. The equipments and chemicals for practical performance were insufficient.
   b. The multimedia for demonstration was found in all subjects.

6. **Academic hours**
   a. The class hours were sufficient for the contents of subjects only in internal medicine and surgery while it was less in infectious diseases, obstetrics and meat hygiene. however, it was more in animal hygiene, poultry diseases and zoonosis.
   b. Practical hours were sufficient only in poultry diseases, obstetrics and zoonosis, while it was less in internal medicine, animal hygiene and surgery and was more in the rest of subjects.

7. **Library**
   a. Books are sufficient in the library in all subjects.
   b. The notes of questions of the previous exams are not found in all subjects.
   c. The multimedia and computers are not found in all subjects.

8. **Exams**
   a. There is one mid-term exam in all subjects.
   b. There is traditional evaluation system in mid-term exams in all subjects.
   c. Students prefer doing the practical exams in laboratories.
   d. The students agreed that the suitable time preceding the final exam must be 3 days.
   e. The final year exams questions came both from subject contents and outside the subject contents.
   f. The final year exams questions came both in a direct and an indirect manner.
   g. The oral exams didn't evaluate the student's standards in all subjects.

9. **Things and issues in the faculty or university**
   Students prefer time schedules, Faculty members and demonstrators while they didn't prefer subjects, student activity, student hostel and dinning in the student hostel.

10. **Preferable place for clinical training**
    Students prefer faculty farm training more than teaching hospital and field training.

11. **The benefit of field training program**:
    Most of students agreed that it was very useful.
C) Meetings and discussions of project team with final year students as well as recent veterinary school graduates:
Assessment of feedback and gap analysis:

The main shortage points and issues of the current teaching and training programs as appeared from the questionnaires and meetings:

The project team members hold a series of meetings to evaluate the results of the questionnaires and students meeting in order to determine the main shortage and pitfalls of the current program and to establish the strategy of development process according to the raised issues.

The overall feedback analysis results can be summarized in the following aspects:

A) Teaching methods and system of assessment:

1- The current teaching methods lack the required motivation and innovation for the students.
2- Absence of clear vision among the student about the courses objectives and aims.
3- Lack of use of recent teaching methods as discussion, case study, self learning that promote intellectual and critical thinking skills among students.
4- Lack of use of recent teaching tools that allow for better presentation of the information in more convenient way.

5- Current teaching and evaluation or assessment methods based on the measuring of the student memorization capabilities rather than their intellectual and professional skills.

6- Some courses remained for decades without modification or update.

B) Student’s training programs and professional skills during classes:

1- Student may have good theoretical and scientific background information but they lack the ability to use and implement this information under field condition.

2- Lack of practical training for many students and even for those how participate in the available practical training programs are not trained on how to use and implement these skills in the field.

3- Although the teaching hospital provides animals for the practical training of the students, the small number of the available animals cannot provide satisfactory training of all students.
4- Lack of site visits to animal production farms as well as poultry farms and fish aqua farms.

C) Student’s skills gain during current field training campaign:

1- The large number of students in each field trip does not allow all students to participate by themselves in the diagnosis and treatment process.

2- The lack of the available medication during the field training campaign does not allow for ideal treatment of animals as a training model for the students.

3- The shortage of the number of participated faculty members as compared to the number of the students has a negative impact on the training process of the students under complete faculty members’ supervision.

4- The one day visit/village does not allow student to make the required follow up of the diagnosed and treated case to ensure the validity of their work.
Building up the strategic plan for the development of veterinary education:

Based on the feedback and need analysis results, the project strategic plan for developing veterinary education in order to enhance veterinarians’ capacity and skills and get them prepared for competitive work at labor market concentrated on three main pivots:

1- Development of field training campaigns
2- Enhancement of teaching skills of faculty members and raise the awareness among them about the recent teaching methods.
3- Improvement of the training and teaching program and updating the scientific curriculum of clinical subjects involved in the project (Animal Medicine, Animal Surgery, Poultry Diseases, Fish Diseases, and Clinical Laboratory Diagnosis).

**Development of teaching and training program of these clinical subjects will be conducted according to the following main outlines:**

a. Establishment of clear mission for each clinical subject and make it available and knowable for both faculty members and students.
b. Establishment of detailed course specification that include clear intended learning outcome and made available for students
c. Enhancement of teaching methods and tools for better understanding of the basic knowledge of each subject.
d. Enhancement of practical training methods for students in all clinical subjects each according to its nature.
Strategy of work

A) Establishment of professional academic standards:

The project established a set of professional standards that veterinary students should fulfill before their graduation. The aim from these standards is to ensure the acquisition of the students the minimum required professional skills.

**Professional Academic Standards**

**Graduated students should be able to perform the following professional skills:**

- Handle and restrain animals safely and humanely whilst ensuring personal safety and that of others in the vicinity.
- Obtain an accurate and relevant history of the individual animal or animal group and its environment.
- Perform a thorough clinical examination including non-specific examination of all major body systems.
- Collect, preserve and transport samples; perform standard practice laboratory techniques; interpret laboratory results (and results of other ancillary diagnostic aids) and integrate with clinical information.
- Assess the nutritional status of an animal and be able to advice on appropriate husbandry and feeding.
- Demonstrate a practical ability to apply knowledge of disease processes within a clinical environment.
- Assess the reproductive efficiency of an animal or group of animals and advise on reproductive management, including obstetrical problems.
- Advise on animal management, welfare, and ethics and understand the importance of animal health economics in the context of acceptable animal welfare.
• Provide emergency care to all species of animals.
• Obtain and record data for current and/or retrospective assessment and analyse animal health and production records.
• Understand the need to minimize the risks of contamination, cross infection and predisposing factors leading to the accumulation of pathogens in veterinary premises and in the field.
• Apply imaging techniques, and advise on their safe use. Interpret the results of imaging techniques in the pursuit of a diagnosis.
• Recognize the indications for medical and/or surgical intervention.
• Advise on and administer appropriate treatment for disease in individuals and group.
• Advise on preventive veterinary medicine including the promotion of optimum health and production.
• Safely perform sedation, general anesthesia and regional analgesia; assess and control pain.
• Sterilize surgical equipment, correctly apply the principles of surgical techniques, and carry out basic surgical procedures on animals.
• Demonstrate an understanding of veterinary public health issues and the procedures to follow with notifiable and zoonotic diseases.
• Recognize when euthanasia is appropriate whilst showing sensitivity to the feelings of owners and others. Humanely perform euthanasia of animals, ensuring personal safety and that of associated personnel; advise on carcass disposal.
• Perform ante-mortem inspection of animals destined for the food chain and be able to recognize conditions affecting the quality and safety of animal products;
• Perform a basic gross post-mortem examination, record findings, sample tissues and safely store and transport them.
Standards of Personal skills

- Conduct themselves in a professional manner with regard to the veterinarian's professional and legal responsibilities and understand and apply the ethical codes.
- Work effectively as a member of a multidisciplinary team in the delivery of services to clients and employers.
- Communicate effectively with the public, professional colleagues and appropriate authorities.
- Respond appropriately to the influence of economic and emotional pressures.
- Foster and maintain a good professional relationship with clients and colleagues, developing mutual trust and respecting their professional views and confidentiality.
- Demonstrate an awareness of the role of veterinarians in the community, particularly in relation to ethical principles.
- Demonstrate competence in information technology including the use of computers for word processing, data handling, and information retrieval. Produce reports in a form that is satisfactory and understandable to the intended audience.
- Recognize their own limitations; recognize when to seek assistance and understand the protocols for dealing with second opinions.
B) Development of Field Training Campaign:

The main strategy of the project for the development of the field training campaign based on:

1- Replacement of the one day visit/village with the 3 days visit/ village system to provide the chance for the trainee to perform the required follow up of the diagnosed and treated cases.

2- Increase the number of participated faculty members to ensure adequate faculty/student ration to ensure the good chance training of all participated students.

3- Use enough amounts of different types of medications and instruments to allow student to ensure satisfactory and reliable treatment of all cases.

The main activities during the field campaign can be summarized in the following points:

1. The project conducted a number of field studies about the most important problems in the veterinary field and the shortage of the veterinary services and animals and poultry production in the villages of Assiut governorate.

2. The project also conducted clinical and laboratory examination for the investigation of the different animal diseases and health problem in the field with the subsequent treatment and implementation of control programs for these problems.

3. The work of the project divided into two main parts.
Higher Education Enhancement Project Fund (HEEPF)
Project Management Unit (PMU)

a- The first part include the training of the recent graduates of the faculty of veterinary medicine as well as the last year students on the various veterinary activities under field conditions.

b- The second part encountered exchange of experiences and consultations with the veterinarians working in these villages for the purpose of improvement of their performance.

4. The project also denotes the important role played by the Bureau of Veterinary Medicine managed by Dr. M. Marzok who provided a lot of help and support for the activities of the project. The field studies conducted by the project concluded the following points:

A. In all Field of poultry production:

1. Evaluation of the mortality ratio of the poultry farms.
2. A high risk of new castle infection in poultry farms.
3. Negative impact on the broiler growth.
4. Drop of egg production than expected or targeted values.
5. Increase of treatment and disinfection costs due to uneconomic use.
6. Increase of vaccination costs due to un-required use or ineffectiveness of the used vaccine.
7. The role of feed was important because there were some diseases or disturbances that resulted from unhealthy rations and improper ration formulation designed by farmers and breeders without consultation of veterinarians.

B. In the fields of animal production and animal diseases:
1. It was clear that farmers lived continuously close to the animals in his house and farms and they were the major responsible person in animal production at villages in Egypt.

2. There were many problems that needed orientation, cure and guidance:
   a. Inbreeding and infertility problems in cattle and especially in water buffaloes.
   b. Feeding – deficiency linked problems that resulted from unawareness of farmers and breeders of correct ways of ration formulation.
   c. Egyptian villages still in a bad need for financial support and animal care especially construction of animal cure units in villages that need to it.
   d. The project appreciates that leading role of veterinarians in villages, centers and various farms in disease combating and control. The project suggests increasing incentives and rewards to veterinarians for their hard work.
   e. Internal and external parasitism still clearly affects animal production. It is recommended to control parasitic infestation to increase animal production in Egypt.
   f. Egyptian villages still in a bad need of construction of new slaughterhouses to enable veterinarians to provide people with safe meat.

5. The project appreciates the educational and training programs performed by the veterinary medical services and with the collaboration of the faculty of veterinary medicine, Assiut University for the enhancement of veterinarian's quality. This enhancement prepares them to face field problems and learn modern techniques in diagnosis and treatment of diseases and how to control them.
6. Continuous work for periodical quaternaries with arrangement with other organizations related to veterinary services for endemic diseases as well as imported diseases, not only at Assiut Governorate but in other Governorates, for the evaluations of vaccination programs.

7. It is clear that we are in need for national strategic system for diseases eradication especially with personal and private animal wealth in Egypt, which constitute 90% of animals.

**Finally we can give the following numbers:**

**First: Animal Medicine**

- 125 Surgical operations
- 3400 Internal medicine, diagnosis and health
- 10250 Treatment for eradication of ectoparasites (cattle, buffaloes and donkeys)
- 32120 Ectoparasites for sheep and goats
- 11200 Treated for internal parasites.

**Second: Poultry diseases**

1. Vaccination against ND for 52000 birds.
2. Treatment of a number of 11300 birds.

**Third:**

A number of consultations to farmers and producers in the field of animal and poultry production.
Field Training campaign activities
1- Teaching program of Animal Medicine Department

The strategic plan for development of the teaching program is based on:

1- Establishment of clear mission for the department

Department Mission:

- Preparation of well qualified veterinaries in the field of Internal Medicine, infectious disease, Fish disease and clinical laboratory diagnosis.
- Training of postgraduate students in the field of Internal Medicine, infectious disease, Fish disease and clinical laboratory diagnosis.
- Qualification of local veterinarians and development of their skills in different fields via-continuous education programs.
- Conduction of scientific research in recent Methods of diagnosis and treatment of various Animal and Fish diseases and other problems in the veterinary field.

2- Establishment of detailed course specifications

Course Specifications

A) Internal Medicine (part I)

Relevant Programme: Bachelor degree of veterinary science
Department offers the programme: -
Department offers the course: Internal veterinary medicine I

Scholar year: 2004-2005
Date of specification approval 1987

A- Basic Information

Title: Veterinary Clinical Medicine I  Code: Year/Level: 4th year.
Units/Credit hours: Lecture 4  Tutorial/Pract. 4 Total 8
B- Professional Information

1 – Aims:
To learn the 4th year students the practical methods for examination of animals, this include the following subjects:
• Pulse, temperature and respiration
• Examination of skin and lymph nodes
• Methods of Auscultation and Percussion of some organs.
• Examination of cardiovascular system.
• Examination of digestive system.
• Examination of Respiratory system.
• Examination of Urinary system.
• Various routes for therapy.
• General medical care of emergency cases

2 – Intended Learning Outcomes (ILOs)

a- Knowledge and Understanding:

a1- Refreshment and knowledge about anatomy and physiology of some important organs that concerned with the diseases studied.

a2- Brief information about biochemical reaction that occur in some diseases.

a3- Basic knowledge about general medicine and intensive care.

b- Intellectual Skills

b1- To learn how to examine an animal.

b2- To learn how to make diagnosis and differential diagnosis.

b3- To learn how to deal with the patients as well as emergency cases.

c- Professional Skills

c1- To learn how the student use the various instrument that aid in diagnosis.

c2- To learn the student the various techniques and methods in various animal species therapy such as oral, intravenous, intramuscular, intratracheal and intracardial. The oral methods for treatment is also important.

c3- Catheterization in urinary problem is also indicated. We cannot ignore the use of rectal enema in solving many digestive troubles.

d- General Skills

d1- The ability of student to write a full scientific report.

d2- The ability of student to work in a team.

d3- Following up of cases using printable sheets.

d4- Notification for the danger infectious diseases.

3- Content

<table>
<thead>
<tr>
<th>Topics taught</th>
<th>No. of hours</th>
<th>Practical topics</th>
<th>No. of hours</th>
</tr>
</thead>
</table>

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<table>
<thead>
<tr>
<th>General systemic states</th>
<th>4</th>
<th>Introduction and general methods of examination</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>Diseases of Digestive system</td>
<td>28</td>
<td>Pulse, temperature and respiration</td>
<td>6</td>
</tr>
<tr>
<td>Diseases of Respiratory system</td>
<td>8</td>
<td>Examination of lymph node and skin</td>
<td>4</td>
</tr>
<tr>
<td>Diseases of Urinary system</td>
<td>8</td>
<td>Examination of Cardiovascular system</td>
<td>4</td>
</tr>
<tr>
<td>Diseases of skin</td>
<td>8</td>
<td>Examination of Respiratory system</td>
<td>8</td>
</tr>
<tr>
<td>Medical care of emergency</td>
<td>4</td>
<td>Examination of Digestive system</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Examination of Urinary system and catheterization</td>
<td>8</td>
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<tr>
<td></td>
<td></td>
<td>Injection and therapy</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clinical Chart</td>
<td>7</td>
</tr>
</tbody>
</table>

4 – Teaching and Learning Methods

4.1- Lecturing.
4.2- Practical sections.
4.3- Fields conveys.
4.4- Discussion groups.
4.5- Small group learning for enhancement of self-learning skills

5 – Teaching and Learning methods for Disabilities students

5.1- Office hours.
5.2- Home work following up.
5.3- Advice for library
5.4- Advice for the team work.

6- Teaching and Learning Methods for Distinguished students

6.1- Review articles is a must.
6.2- Practical application by himself under observation.
6.3- The advice for book at library.

7- Student Assessment

7.1- Tools
Midterm exam to measure a3&b1 and b2
Practical exam to measure a3&b1&b2&c1&c2 and c3
Oral exam to measure a3&b1 and b2
Written exam to measure a3&b1&b2&d3 and d3
Self-learning assignment to measure b.2, b.3, C.1, C.2
Evaluation of small group learning to measure a3, b1, b2, c2

7.2- Time Schedule
Midterm exam week 8
Practical exam week 14
Final written exam week 16
Final oral exam week 16
Self-learning assignment …During class work.
Evaluation of small group learning ……During class work.
7.3- Grading System
   Mid-Term Exam and assignments.  20%
   Practical Exam                  10%
   Final Term Exam                 50%
   Oral Exam                      20%

8- List of References
8.1- Course Notes
   • Notes on internal Veterinary Medicine (First Part).
   • Notes on Veterinary Clinical Medicine (Practical part)

8.2- Required Books (Text Books)
   • Veterinary Clinical diagnosis by Kelly.
   • Merck Veterinary Medicine Manual.
   • Radostitis et al., Veterinary Medicine.
   • Colse, Veterinary Clinical Pathology.

8.3- Recommended Books
   • Practical Veterinary medicine by Rosenberger et al., (Germany).
   • Internal veterinary Medicine by Rosenberger et al.

8.4- Periodicals, Web Sites, … etc

9- Facilities Required for Teaching and Learning
   • Teaching aids (Data show).
   • Computers.
   • X ray machine.
   • Well equipped laboratory with chemicals.
   • Glasses and various measuring apparatuses as plasma emission,
   • Spectrophotometer, Ultrasonography, Endoscopes for respiratory and digestive system examination.

Course Coordinator (Course Professor):
Prof. Dr. AbdelSalam, M. N.

Head of Department:
Prof. Dr. Liala S. Ahmed

Date: 1/03/2006
A- Internal Medicine (part II)

Course Specifications

**Relevant Programme:** Bachelor degree of veterinary science

**Department offers the programme:** -

**Department offers the course:** Internal veterinary medicine II

**Scholar year:** 2004-2005

**Date of specification approval** 1987

C- Basic Information

**Title:** Internal veterinary medicine II  **Code:** -  **Year/Level:** 5th year.

**Units/Credit hours:**

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Tutorial/Pract.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

D- Professional Information

1 – Aims:

1- To learn the 5th year students the diseases of cardiovascular system, blood transformation, Nutritional deficiency (Minerals, trace elements and vitamins), Metabolic diseases and diseases of nervous system.

2- Practical work

3- Field convoys.

2 – Intended Learning Outcomes (ILOs)

b- Knowledge and Understanding:

a1- Basic knowledge about physiology of some important organs that concerned with the diseases studied.

a2- Brief information about biochemistry and chemistry reactions related to some cardiac and metabolic diseases.

a3- Basic knowledge on diagnosis and treatment of diseased cases.

b- Intellectual Skills

b1- To learn how to deal with the diseased animal (Examination and interpretation of recorded observations)

b2- To learn how to make the differential diagnosis.

b3- To learn how to deal with the diseased cases as well as emergency cases.

e- Professional Skills

c1-To learn how to use the various diagnostic aids such as x-rays, ultrasonic and endoscopy.
c2- To learn the various techniques of therapy such as oral, intravenous, intramuscular, intratracheal and intracardial.
c3- To learn how to follow up the diseased case till recovery.

**f- General Skills**
d1- To learn how to write a complete scientific report.
d2- To learn how to work with the team
d3- To learn the important of notification of the danger infectious diseases.

### 3- Content

<table>
<thead>
<tr>
<th>LECTURE TOPICS</th>
<th>PRACTICAL TOPICS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Cardiovascular system</strong></td>
<td>1-Clinical chart &amp; treatment of cases</td>
</tr>
<tr>
<td>2-Metabolic disorders</td>
<td></td>
</tr>
<tr>
<td>3-Minerals</td>
<td></td>
</tr>
<tr>
<td>4-Vitamins</td>
<td></td>
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<tr>
<td>5-C.N.S.</td>
<td></td>
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<tr>
<td>6-Blood transfusion &amp; drug interaction</td>
<td></td>
</tr>
</tbody>
</table>

### 4 – Teaching and Learning Methods
4.1- Lecturing.
4.2- Practical sections.
4.3- Fields conveys.
4.4- Discussion group.
4.5- Case study
4.5- Self-learning assignment

### 5 – Teaching and Learning methods for Disables students
5.1- Office hours.
5.2- Home work following up.
5.3- Advice for library
5.4- The attachment for the team work.

### 6- Teaching and Learning Methods for Distinguished students
6.1- Review articles on some subjects.
6.2- The advice for library.
6.3- practical application by themselves under supervision.

### 7- Student Assessment
7.1- Tools
Midterm exam  to measure a3&b1&b2 and b3
Practical exam to measure a3&b1&b2&b3 and c1
Oral exam     to measure a3&b1&b2&b3 and c3
Written exam  to measure a3&b1&b2&b3 and c3
Case study evaluation **to measure** a3&b1&b2&b3 and c1
Self learning evaluation **to measure** a2&b2&b3 and c2

7.2- Time Schedule
- Midterm exam **week** 8
- Practical exam **week** 14
- Final written exam **week** 16
- Final oral exam **week** 16

Case study evaluation **During class work**
Self learning evaluation **During class work**

7.3- Grading System

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Mid-Term Exam and assignments</td>
<td>20%</td>
</tr>
<tr>
<td>Practical Exam</td>
<td>10%</td>
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<tr>
<td>Final Term Exam</td>
<td>50%</td>
</tr>
<tr>
<td>Oral Exam.</td>
<td>20%</td>
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</tbody>
</table>

8- List of References

8.1- Course Notes
- Notes on internal veterinary medicine (PartII)

8.2- Required Books (Text Books)
- Merck Veterinary Medicine Manual
- Radostitis et al., Veterinary Medicine.
- Colse, Veterinary Clinical Pathology.
- Cornelius and kaneko, Biochemistry of domestic animals.

8.3- Recommended Books
- Practical Veterinary medicine by Rosenberger et al., (Germany).
- Internal veterinary Medicine by Rosenberger et al.
- Vitamin C in Health and Diseases by Basu and schorah.
- Animal Nutrition and Feeding by Gillespi.

8.4- Periodicals, Web Sites, … etc

9- Facilities Required for Teaching and Learning
- Teaching aids (Data show).
- Computers.
- X ray machine.
- Well equipped laboratory with chemicals.
- Glasses and various measuring apparatuses as plasma emission,
- Spectrophometer, Ultrasonography, Endoscopes for respiratory and digestive system examination.

**Course Coordinator( Course Professor):**
Prof. Dr. El Sebaie, A.

**Head of Department:**
Prof. Dr. Liala S. Ahmed
Date: 1/03/2006
B- Clinical Laboratory Diagnosis

Course Specifications

Relevant Programme: Bachelor degree of Veterinary Science.
Department offers the programme:
Department offers the course: Animal Medicine.

Scholar year: 2004/2005
Date of specification approval: 1987

E- Basic Information

Title: Clinical Laboratory Diagnosis. Code: 4, 2, 5 Year/Level: 4th

Units/Credit hours: Lecture 2 Tutorial/Prac. 4 Total 6

F- Professional Information

1 – Aims

After Completion of this course, students are expected to be:

1. Trained to generate reliable laboratory results using the available laboratory equipments and instruments.
2. Trained to correctly interpret the obtained laboratory results using scientific concepts and knowledge.
3. Able to use laboratory results to help establish diagnosis, track the course of the disease and predict disease prognosis.

2 – Intended Learning Outcomes (ILOs)

c- Knowledge and Understanding:

a1- Basic knowledge of the scientific background of different animal diseases and their effect on health parameters.

a2- Basic knowledge of the normal values of different laboratory parameters.

a3- Knowledge of different types of animal samples and specimen, methods of collection, preservation and selection of appropriate specimen.

a. 4 – Knowledge of various laboratory procedures used with various types of animal specimens.
d- Intellectual Skills

b1- To deal with different types of field case study that involve multiple parameters with the ability to make reliable interpretation of the obtained results to reach accurate and efficient diagnosis.

b2- To deal with complex cases that involve more than one efficient or health problem in term of correct choice of relevant specimens and the ability to analyze the obtained results in a manner that dissolve the case and reach the appropriate diagnosis.

e- Professional Skills

c1- Selection of appropriate types of samples and specimens that correctly represent the given animal disease of affection.

c2- Implementation of relevant laboratory tests whereas the obtained results helping the diagnosis of the given disease.

c3- Reliable interpretation of the obtained results and its employment in the diagnosis of the given animal disease or affection, assessment of treatment and prediction of the disease prognosis.

f- General Skills

D1- Reporting of results using printable sheets.
D2- Ability to write a full scientific reports of case study..
D3- Ability to working group and team work through implementation of small group teaching for solving of given problems.
D4- Ability to use computer and internet to extract information and knowledge.

3- Contents

<table>
<thead>
<tr>
<th>Theoretical</th>
<th>Hours</th>
<th>Practical</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling</td>
<td>2</td>
<td>Sampling instruments</td>
<td>4</td>
</tr>
<tr>
<td>Hematology I (Red blood cells)</td>
<td>2</td>
<td>Blood cells count</td>
<td>4</td>
</tr>
<tr>
<td>Hematology II (White blood cells) &amp; Hemostasis</td>
<td>2</td>
<td>Hemoglobin, PCV, ESR</td>
<td>4</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>2</td>
<td>Differential Leucocytic count</td>
<td>4</td>
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<tr>
<td>Liver function test</td>
<td>2</td>
<td>Urinalysis</td>
<td>4</td>
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<tr>
<td>Kidney function test</td>
<td>2</td>
<td>Parasitological examination</td>
<td>4</td>
</tr>
<tr>
<td>Water and electrolyte</td>
<td>2</td>
<td>Ruminal fluid examination</td>
<td>4</td>
</tr>
<tr>
<td>Acid base balance</td>
<td>2</td>
<td>Pancreatic function test</td>
<td>4</td>
</tr>
<tr>
<td>Cytology</td>
<td>2</td>
<td>Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>Bacteriology</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4 – Teaching and Learning Methods
4.1- Lecturing.
4.2- Discussion sessions.
4.3- Case study to teach students how to analyze information and reach a decision.
4.4- Practical sessions to gain practical skills.
4.5- Small group learning to gain self learning skills

5 – Teaching and Learning methods for Disable students
5.1- Office hours.
5.2- …………………
5.3- …………………

6- Teaching and Learning Methods for Distinguished students
6.1- Assignment of writing review paper to gain skills of self learning and presentation.
6.2- Research assignment.
6.3-…………

7- Student Assessment
7.1- Tools
Written exam (assay. to measure a.1, a.2, a.3, a.4, C.1, C.2, C.3
Practical exam……….. to measure …… C.1, C.2, C.3……
Oral exam……………. to measure ……B.1, B.2, C.1, C.3……
Multiple choice exam…to measure …… B.1, B.2, d.3………
Case study evaluation …. To measure …… B.1, B.2, C.2, C.3

7.2- Time Schedule
Mid term (multiple choice)….week…8………
Final term ………………….. week…16………
Practical exam ……………. week…14………
Oral exam …………………. week…16………
Multiple choice exam …. Quizzes during the practical lessons
Case study evaluation …… assignments during practical lessons

7.3- Grading System
Mid-term Exam and assignments 20 %
Final Term Exam. 30 %
Oral Exam 20 %
Practical Exam 30 %

8- List of References
8.1- Course Notes
………………Department course notes………………
8.2- Required Books (Text Books)
8.3- Recommended Books
1- Veterinary Clinical Pathology, Embert H. Coles, Saunders Company, Philadelphia and London.
2- Veterinary Laboratory Medicine, Clinical Pathology, Duncan & Prasses.
3- Veterinary Clinical Pathology, William Medway, The Williams & Wilkins Co, Baltimore.
8.4- Periodicals, Web Sites, … etc

9- Facilities Required for Teaching and Learning
- Appropriate teaching accommodation (teaching rooms and laboratories)
- Teaching aids (data show)

Course Coordinator (Course Professor): Prof. Dr. Abdelall, Th..
Head of Department: Prof. Dr. Liala S. Ahmed
Date: 1/3/2006
C- Infectious Diseases (Part I)

Course Specifications

**Relevant Programme:** Bachelor Degree of Veterinary Science  
**Department offers the programme:** -  
**Department offers the course:**

**Scholar year:** 2004/05  
**Date of specification approval:** 1987

G- Basic Information

**Title:** Infectious diseases 1st part. **Code:**  
**Year/Level:** 4th year  
**Units/Credit hours:** Lecture 2 Tutorial/Pract.  
**Total**

H- Professional Information

1 – Aims:

**After completion of this course, students:**

1- Describe and identify sheep viral, bacterial and parasitic diseases  
2- Acquiring broad knowledge about equine viral, bacterial and parasitic diseases  
3- To know types of parasitic diseases.  
4- The students will be able to determine newly born animal diseases  
5- know protozoal diseases.

2– Intended Learning Outcomes (ILOs)

**g- Knowledge and Understanding:**

a1- Basic knowledge about terminology in infectious diseases.  
a2- Basic knowledge about epidemiology.  
a3- Basic knowledge about diagnosis of infectious diseases.  
a4- Basic knowledge about clinical microbiology and parasitology  
a5- Basic knowledge about serology, allergic tests (Mallien), immunity and vaccination.  
a6- Basic knowledge about blood smear examination.

**h- Intellectual Skills**

b1- To deal with infectious diseases in different animals.
Higher Education Enhancement Project Fund (HEEPF)
Project Management Unit (PMU)

b2- To choose different stains for diagnosis of infectious diseases.
b3- To know how to deal with allergic tests (Mallien), immunity and vaccination.
b4- Dealing with clinical cases in different animals.

i- Professional Skills
   c1- Ability to diagnose, treat and control infectious diseases.
c2- Ability to deal with blood and fecal samples in cases of infectious diseases.
c3- Ability to evaluate results of allergic tests
c4- Ability to evaluate immunity and vaccination program.
c5- Ability to understand epidemiology of infectious diseases.

j- General Skills
   d1- Ability to write reports and essay on the different scientific items in the field of infectious diseases.
d2- Reporting of the facts using printable sheets in the field of infectious diseases.
d3- Ability to write a full scientific reports in the field of infectious diseases.
d4- Ability to working in groups and team.
d5- Ability to use computer and internet to extract information and knowledge.

3- Contents
Contact hours: Theoretical part: 60 and Practical part: 60

<table>
<thead>
<tr>
<th>LECTURE TOPICS</th>
<th>PRACTICAL TOPICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Sheep viral diseases</td>
<td>1-Terminology</td>
</tr>
<tr>
<td>2-Clostridial diseases</td>
<td>2-Episeminology</td>
</tr>
<tr>
<td>3-Sheep bacterial diseases</td>
<td>3-Diagnosis of infectious diseases</td>
</tr>
<tr>
<td>4-Equine bacterial diseases</td>
<td>4-Clinical parasitology</td>
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<tr>
<td>5-Equine viral diseases</td>
<td>5-Blood smear examination</td>
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<td>6-Newly born animal diseases</td>
<td>6-Clinical microbiology and Serology</td>
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<td>7-Parasitic diseases</td>
<td>8-Allergic tests (Mallein)</td>
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<tr>
<td>8-Protozoal diseases</td>
<td>9-Immunity &amp; vaccines</td>
</tr>
<tr>
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<td>10-Scientific photograph</td>
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</table>

4 – Teaching and Learning Methods
4.1- Lecturing
4.2- Discussion sessions
4.3- Practical sessions to gain practical skills
4.4- Field trips to visit animal and poultry farms.
4.5- Case study assignments
4.6- Self-learning assignments

5 – Teaching and Learning methods for Disabled students
5.1- Office hours

6- Teaching and Learning Methods for Distinguished students
6.1- Assessment of writing review paper to gain skills of self learning and presentation
6.2- Research assignment

7- Student Assessment
7.1- Tools
Written exam (assay) to measure a1-c6
Practical exam to measure c1 – c5
Multiple choice exam to measure b1 - b4, c1 – c5 and d1- d5
Case study assignments to measure b2,b3, c1 – c4 and d2- d5
Self-learning assignments to measure b1 - b4, c1, c3, c4 and d2, d3, d

7.2- Time Schedule
Mid term (multiple choice questions) …. Week 8
Final exam ………………………………. Week 16
Practical exam …………………………. Week 14
Oral exam ………………………………. Week 16
Case study assignments ….. during regular class work
Self-learning assignments ……. during regular class work hours

7.3- Grading System

<table>
<thead>
<tr>
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<th>Percentage</th>
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<tbody>
<tr>
<td>Mid-Term Exam and assignments</td>
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<tr>
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<tr>
<td>Oral Exam</td>
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</table>

8- List of References
8.1- Course Notes
Department course notes (lectures and practical)

8.2- Required Books (Text Books)
None

8.3- Recommended Books
8.3.1-
8.3.2-
8.3.3-
8.3.4-
8.3.5-

8.4- Periodicals, Web Sites, … etc
C- Infectious Diseases (part II)

Course Specifications

Relevant Programme: Bachelor Degree of Veterinary Science
Department offers the programme: -
Department offers the course: -

Scholar year: 2004/05
Date of specification approval: 1987

I- Basic Information

Title: Infectious diseases 2nd part. Code: 4 6
Year/Level: 5th year 2
Units/Credit hours: Lecture Tutorial/Pract. Total

J- Professional Information

1 – Aims:

After completion of this course, students:

1- Describe and identify cattle viral, bacterial and parasitic diseases
2- Acquiring broad knowledge about skin diseases
3- To know types of mastitis.
4- The students will be able to diagnose pet animal diseases.
5- know abortive diseases.

2– Intended Learning Outcomes (ILOs)

K- Knowledge and Understanding:

a1- Basic knowledge about etiology of infectious diseases.
Higher Education Enhancement Project Fund (HEEPF)  
Project Management Unit (PMU)  

a2- Basic knowledge about epidemiology in case of infectious disease.  
a3- Basic knowledge about field and laboratory diagnosis.  
a4- Basic knowledge about therapy, prophylaxis and control of infectious diseases.  
a5- Basic knowledge about field cases.  
a6- Basic knowledge about diagnosis of mastitis.  

I- Intellectual Skills  
b1- To deal with infectious diseases in cattle.  
b2- To choose different stains for diagnosis of mastitis.  
b3- To know how to deal with different field cases.  
b4- Dealing with etiology of infectious diseases.  

m- Professional Skills  
c1- Ability to diagnose, treat and control cattle infectious diseases.  
c2- Ability to deal with field cases of infectious diseases.  
c3- Ability to evaluate results of field and laboratory tests.  
c4- Ability to evaluate immunity and vaccination program of cattle diseases.  
c5- Ability to understand epidemiology of infectious diseases of farm and pet animals.  

n- General Skills  
d1- ability to write reports and essay on the different scientific items in the field of infectious diseases.  
d2- Reporting of the facts using printable sheets in the field of infectious diseases.  
d3- Ability to write a full scientific reports in the field of infectious diseases.  
d4- Ability to working in groups and team.  
d5- Ability to use computer and internet to extract information and knowledge.  

3- Contents  

Contact hours: Theoretical part: 30 and Practical part: 60  

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<thead>
<tr>
<th>LECTURE TOPICS</th>
<th>PRACTICAL TOPICS</th>
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<td>1- Etiology</td>
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<td>2- Cattle viral diseases</td>
<td>2- Epidemiology</td>
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<tr>
<td>3- Mastitis</td>
<td>3- Symptomatology</td>
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<tr>
<td>4- Parasitic diseases</td>
<td>4- Field diagnosis</td>
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<td>5- Pet animal diseases</td>
<td>5- Lab diagnosis</td>
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<tr>
<td>6- Skin diseases</td>
<td>6- Prophylaxis, and control</td>
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<td>7- Abortive diseases</td>
<td>7- Therapy</td>
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<td>8- Field cases (Vet. Clinical)</td>
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</table>
4 – Teaching and Learning Methods
  4.1- Lecturing
  4.2- Discussion sessions
  4.3- Practical sessions to gain practical skills
  4.4- Field trips to visit animal and poultry farms.

5 – Teaching and Learning methods for Disabled students
  5.1- Office hours

6- Teaching and Learning Methods for Distinguished students
  6.1- Assessment of writing review paper to gain skills of self learning and presentation
  6.2- Research assignment

7- Student Assessment
  7.1- Tools
    Written exam (assay) to measure a1-c6
    Practical exam to measure c1 – c5
    Multiple choice exam to measure b1 - b4, c1 – c5 and d1- d5

  7.2- Time Schedule
    Mid term (multiple choice questions) …. Week 8
    Final exam ................................. Week 16
    Practical exam ........................... Week 14
    Oral exam ................................. Week 16

  7.3- Grading System
    Mid-Term Exam. 20%
    Final Term Exam 50%
    Oral Exam. 20%
    Practical Exam 10%

8- List of References
  8.1- Course Notes
    Department course notes (lectures and practical)
  8.2- Required Books (Text Books)
    None
  8.3- Recommended Books
  8.4- Periodicals, Web Sites, … etc
    www.pubmed.com

9- Facilities Required for Teaching and Learning
  -
Higher Education Enhancement Project Fund (HEEPF)
Project Management Unit (PMU)

-  
-  
-  

Course Coordinator (Course Professor): Prof. Dr. Liala S. Ahmed

Head of Department: Prof. Dr. Liala S. Ahmed

Date: / /
D- Fish Diseases

Course Specifications
Relevant Program: Bachelor of Veterinary Sciences
Department offers the program: ------
Department offers the course: Dept. of Animal Medicine

Scholar year: 2005/2006
Date of specification approval

K- Basic Information

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<td>Lecture 2</td>
<td>Tutorial/Pract. 4</td>
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L- Professional Information

1 – Aims: By the end of this course, students should be able to
* Diagnose, treat and control fish diseases.
* Provide health care services to fish farms and hatcheries

2 – Intended Learning Outcomes (ILOs)

o- Knowledge and Understanding:
  a. gain basic knowledge about aquaculture and fish diseases
  b. gain basic knowledge about various fish pathogens
  c. gain basic knowledge about various therapeutics used for food fish

p- Intellectual Skills
  a. Develop a list of differentials for diagnosis of diseases
  b. Construct a regimen to control outbreaks of fish diseases

q- Professional Skills
  a. Clinically examine the fish
  b. Identify various causes of fish diseases
  c. Provide health care services to fish farms

r- General Skills
  a. Computer skills
  b. Communication skills

3- Contents
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<th>No. of hours</th>
<th>Practical Subject</th>
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<td>Taxonomy</td>
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<td>Fish farming</td>
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<td>Mycotic diseases</td>
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<td>General diagnosis of fish diseases</td>
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<td>Environmental diseases</td>
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<td>Parasitological examination</td>
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<td></td>
<td></td>
<td>Clinical pharmacology</td>
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<td></td>
<td></td>
<td>Water quality</td>
<td>4</td>
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<tr>
<td></td>
<td></td>
<td>Setting aquaria</td>
<td>4</td>
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</table>

4 – Teaching and Learning Methods
   a- lecturing
   b- group learning
   c- Field visits
   d- Case study
   e- Self-learning assignments

5 – Teaching and Learning methods for Disables students: extra office hours

6- Teaching and Learning Methods for Distinguished students: extra assignments

7- Student Assessment
   7.1- Tools
      Midterm exam........to measure ...a1-a3, b1
      Practical exam ........ to measure ...c1-c3..................................
      Final exam.............. to measure ...a1-a3, b1,b2, d1,d2....................
      Oral exam............... to measure ...b1,b2,d2... ........................
      Case study evaluation to measure ...c1-c3.........................
      Self-learning assignment to measure a1-a3, b1,b2, d1,d2

   7.2- Time Schedule
      ...... Midterm exam       Week ...8........
      ...... Practical exam... Week ...12........
      ...... Final exam........ Week ...15........
      ...... Oral exam ......  Week ...15........

   7.3- Grading System
      Mid-Term Exam and assignment. 20%
      Final Term Exam              50%
Higher Education Enhancement Project Fund (HEEPF)
Project Management Unit (PMU)

Oral Exam. 15%
Practical Exam 15%

8- List of References
8.1- Course Notes
     …..Notes and hand-outs……
8.2- Required Books (Text Books)…..N/A…………………………………….
8.3- Recommended Books…………N/A
8.4- Periodicals, Web Sites, … etc …..N/A……………………..

9- Facilities Required for Teaching and Learning: Concrete pond and samples

Course Coordinator( Course Professor): Prof. Dr. Shaban Mohamed Ahmed
Head of Department: Prof. Dr. Laila Salah El-Din

Date: 1/03/ 2006

3- Development of teaching method
Improvement and enhancement of teaching methods especially in the practical lesson was conducted on the bases of self learning method (see enclosed CDs, booklets and posters). The given diseases are classified according to the affected organs to make more comprehensive understanding.

Improvement of student professional skills in the area of disease diagnosis by using key differential diagnosis methods. The project published an example based on differential diagnosis of sheep diseases. In addition epidemiological diagnosis was taken in consideration. Special work was conducted for making teaching closed TV circuit with microscope and monitor system. This system will facilitate comprehensive understanding and knowing the features of the diseases and allied changes.

Improvement of student professional skills in the area of disease treatment by applying clinical, laboratory and case history-based specific therapy. In addition following up program for irradiation of the diseases most is conducted based on epidemiology and endemic nature. Special attention must be done for emergent diseases and how to face them and eradicate by new quick methods of diagnoses and recognition.

4- Assessment of students:
This will be done on the following bases:

a- **Practical examination**

1. This will be performed on measuring the professional skill of the student in the recognition and diagnosis of diseases. In addition certain assignment for each student will be nominated to be done. Finally the activity in the campaigns of veterinary work will be taken in consideration.

2. The practical examination is meant to measure the acquired professional and intellectual skills of the students.

b- **Oral examination:**

1. This will be conducted to measure professional skills of the student which cannot be measured except by oral examination taking in consideration the quality, rate, and reality of performance.

2. The oral examination is meant to measure the acquired knowledge of the students and measure their understanding of the given subjects as well as evaluating their intellectual skills in term of critical thinking and ability to deduce the required information.

c- **Mid term examination:**

1. The mid term examination will be conducted at specified times described in related course specifications (not earlier than the 6 week of study). The examinations can be repeated from time to time to measure the apprehension of the student to the given course.

2. The mid term exam will include also the evaluation results of the student's assignments, small group teaching skills and self-learning capabilities.
3. The mid term examination is meant to measure the apprehension of the students during the courses as well as measuring their acquired knowledge and intellectual skills as specified in the related intended learning outcomes described in each course specification.

**d- Final year written examination:**

This will be conducted on the following bases:

a. The examination must be done as objective test and avoidance of essay tests as far as possible. The objective tests are based on true and false questions or multiple choice question (MCQ) or matching items or short answers as well as problem solving and case studies questions.

b. The final written exam is meant to measure the knowledge as well as intellectual skills as specified in the related intended learning outcomes described in each course specification.
2- Teaching program of Poultry Diseases:
The strategic plan based on:

1- Establishment of clear mission for the department

Department Mission:

Contributing to the preparation of a graduate veterinarian equipped with an up-to-date knowledge of poultry diseases and their academic and clinical problems to which poultry flocks are exposed; in order to increase its productivity and secure a safe source of animal protein for human consumption. This is done through the application of an exceptional academic program and conduction of research, to solve poultry farms problems in Upper Egypt.

2- Establishment of detailed course specifications

Course Specifications

Relevant Programme: Bachelor degree of Veterinary Science
Department offers the programme:
Department offers the course: Poultry diseases

Scholar year: 2004 - 2005
Date of specification approval 1987

M-Basic Information

Title: Poultry diseases 1st part Code: Year/Level: 4th year
Units/Credit hours: Lecture Tutorial/Pract. Total

N- Professional Information

1 – Aims
   a. Training on correct interpretation of results to reach proper diagnosis of diseases.
   b. The students will be able to deal with problems of poultry farms.

2 – Intended Learning Outcomes (ILOs)
s- Knowledge and Understanding:
   a. Knowledge on proper treatment of poultry diseases.
      b. Understanding how to deal with poultry farms disease problems.

t- Intellectual Skills
   a. How to get proper decision in farms especially those related to increase production.
      b. How to differentiate between different poultry diseases.

u- Professional Skills
   a. To select and decide the correct methods of treatment.
      b. How to interpret the clinical results to know the prognosis of the diseased cases.

v- General Skills
   a. To write suitable scientific report of the poultry diseases.
      b. To know how to use the computer for researching proper decision.
      c. To know communications skills for information of hazard diseases.

3- Contents
Contact hours: Theoretical part: 30 and Practical part: 60

<table>
<thead>
<tr>
<th>LECTURE TOPICS</th>
<th>PRACTICAL TOPICS</th>
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<tbody>
<tr>
<td>1-Bacterial diseases of poultry</td>
<td>1-Post-mortem exam.</td>
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<tr>
<td>2-Mycotic diseases of poultry</td>
<td>2-Clinical cases</td>
</tr>
<tr>
<td>3-Miscellaneous diseases of poultry</td>
<td>3-Lab. Diagnosis of bacterial and mycotic diseases</td>
</tr>
<tr>
<td>4- diseases of rabbit (bacterial)</td>
<td>4-Field visitis</td>
</tr>
<tr>
<td></td>
<td>5-Samples &amp; slides show</td>
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</tbody>
</table>

4 – Teaching and Learning Methods
   1. Lecturers.
   2. Practical lessons.
   3. Discussion sessions.
   4. Poultry farm visits
   5. Case study assignment
   6. Self-learning assignments
5 – Teaching and Learning methods for Disabilities students
Office hours

6- Teaching and Learning Methods for Distinguished students
1. Writing review report of certain poultry problems.
2. Making scientific posters.

7- Student Assessment
7.1- Tools
Mid term exam…………….to measure intellectual skills
Final year written exam... to measure professional and general skills
Oral………………………. to measure professional
Practical…………………… to measure intellectual skills
Case study evaluation……….to measure both professional and intellectual skills
Self-learning evaluation ……to measure both professional and intellectual skills

7.2- Time Schedule
Mid term exam …………… Week …6…. 
Final year written exam ….. Week …14…..
Practical……………………..week …12……
Oral …………………………week …14……
Case study evaluation……….during regular class work
Self-learning evaluation …… during regular class work

7.3- Grading System
<p>| | |</p>
<table>
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<tbody>
<tr>
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<td>20 %</td>
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<td>Final Term Exam</td>
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<tr>
<td>Oral Exam.</td>
<td>15 %</td>
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<tr>
<td>Practical Exam</td>
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</table>

8- List of References
8.1- Course Notes
………

8.2- Required Books (Text Books)
……………………………………………………..

8.3- Recommended Books

8.4- Periodicals, Web Sites, … etc
……………………………………………………..

9- Facilities Required for Teaching and Learning
Course Coordinator( Course Professor): Prof. Dr. Mostafa Abd Emoteleb Shehata
Head of Department: Prof. Dr. Mostafa Abd Emoteleb Shehata

Date:   11/3  /  2006

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3- **Development of teaching method**

Improvement and enhancement of teaching methods especially in the practical lesson was conducted on the bases of self learning method (*see enclosed CDs*). The given diseases are classified according to the affected organs to make more comprehensive understanding. Improvement of student professional skills through comprehensive site visits to poultry farms both during regular practical classes as well as during the field training campaign trips. Implementation of key differential diagnosis methods for improvement of student skills in the area of disease diagnosis.

Implementation of case history, clinical and laboratory diagnosis -based specific therapy for enhancement of students professional skills in the area of diseases control and treatment. Control of poultry disease based on reliable vaccination program based on the epidemiology and endemic nature of the diseases.

4- **Assessment of students:**

This will be done on the following bases:

a- **Practical examination**

   This will be performed on measuring the professional skill of the student in the recognition and diagnosis of diseases. In addition certain assignment for each student will be nominated to be done. Finally the activity in the campaigns of veterinary work will be taken in consideration.

b- **Oral examination:**

   This will be conducted to measure professional skills of the student which cannot be measured except by oral examination taking in consideration the quality, rate, and reality of performance.

c- **Mid term examination:**
Higher Education Enhancement Project Fund (HEEPF)
Project Management Unit (PMU)

This will be conducted at any time during the term but not earlier than the 6 week study and can be repeated from time to time to measure the apprehension of the student to the given course.

**d- Final year written examination:**

This will be conducted on the following bases:

1- The examination must be done as objective test and avoidance of essay tests as for as possible. The objective tests are based on true and false questions or multiple choice question (MCQ) or matching items or short answers.

5- Raising awareness and enhancing skills and capability of the faculty staff:

This was done periodically in the form of seminars, lectures, and workshops for the sake of enhancement of educational process.
3- Teaching program of Animal Surgery:
The strategic plan based on:

1- Establishment of clear mission for the department

Department Mission:

1. Graduation of veterinarians who are trained to perform various surgical operations and able to practice in the field.
2. Training of postgraduate students to be able to conduct research in different fields of surgery.
3. Conduction of workshops for training and continuous education of local veterinarians on recent surgical applications and methods for treatment of various surgical procedures.
4. Participation in veterinary treatment campaign for training of students and local veterinarians.
5. Conduction of scientific research in various fields of Animal surgical affection.

2- Establishment of detailed course specifications

Course Specifications

Relevant Programme: Bachelor Degree of Veterinary Science
Department offers the programme: -
Department offers the course: Surgery Department

Scholar year: 2004/05
Date of specification approval: 1987

A- Basic Information

Title: Regional Surgery and Radiology. Code:
Year/Level: 5th (1st and 2nd semesters)

Units/Credit hours: Lecture 2 Tutorial/Pr 4 Total 6

O- Professional Information

1 – Aims:
After completion of this course, students are expected to:

1. Know all surgical diseases of the digestive system and their treatment
2. Know all surgical diseases of the respiratory system and their treatment
3. Know all diseases of the urogenital system and their treatment
4. Know all diseases of the udder and teat and their treatment
5. Know all diseases of the eye and orbit and their treatment
6. Know diagnosis and treatment of lameness in animals
7. Performing and interpretation of x-ray films and diagnosis of diseases

2– Intended Learning Outcomes (ILOs)

a. Knowledge and Understanding:
   
a1. Basic knowledge about general surgery and anesthesiology
   a2. Knowledge about the anatomy of different animal species
   a3. Basic knowledge of animal physiology, pathology and medicine

b. Intellectual Skills
   b1. To choose the suitable surgical treatment for each disease
   b2. To deal with clinical cases and to know differential diagnosis between surgical affections
   b3. To know how to interpret x-ray films

w- Professional Skills
   c1. Diagnosis, surgical treatment and postoperative care of sick animals
   c2. To select the suitable anesthetic regimen and surgical treatment for each case according to the circumstances and available materials

x- General Skills
   d1. Ability to write a full scientific report of case study
   d2. Follow up of cases postoperatively using printable sheets
   d3. Ability to use computer and internet to extract information and knowledge
   d4. Ability to work in team

3- Contents

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<thead>
<tr>
<th>Subject</th>
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<td>Tongue and lips</td>
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<td>Salivary glands</td>
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<td>Guttral pouch</td>
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<td>Larynx</td>
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<td>3- Udder and Teat Surgery &amp; Miscellaneous diseases</td>
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<td>Udder</td>
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<tr>
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<td>4- Lameness</td>
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<td>Diagnosis of lameness</td>
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<td>Diseases of the hoof</td>
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<td>5- Ophthalmology</td>
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Project Management Unit (PMU)

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<td>Dark Room and Radiographic Processing</td>
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<td>Detail, Density and Contrast</td>
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<td>Radiation Hazards and Protection</td>
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<td>Special Radiographic Procedures</td>
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<td>Radiographic Interpretation</td>
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<td>Urinary System</td>
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<td>Male Genital System</td>
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4 – Teaching and Learning Methods
4.1- Lecturing
4.2- Discussion sessions
4.3- Practical sessions to gain practical skills
4.4- Field trips to treat sick animals in villages
4.5- Case study assignments
4.6- Self-evaluation assignments
5 – Teaching and Learning methods for Disable students
   5.1- Office hours

6- Teaching and Learning Methods for Distinguished students
   6.1- Assessment of writing review paper to gain skills of self learning and presentation
   6.2- Research assignment

7- Student Assessment
   7.1- Tools
   Written exam (assay) to measure a.1, a.2, c.1, c.2, and c.3
   Practical exam to measure c.1, c.2, c.3
   Oral exam to measure b.1, b.2, b.3, c.1, c.2, and c.3
   Multiple choice exam to measure b.1, b.2, and b.3
   Case studies evaluation to measure b.1, b.2, b.3, C.2, C.3
   Self-learning evaluation to measure a.1, a.2, b.2, b.3, C.1, C.2

7.2- Time Schedule
   1st Mid term ………………………. … Week 8
   2nd Mid term ………………………. Week 26
   Practical exam ………………………. Week 28
   Oral exam …………………………… Week 30
   Final exam …………………………… Week 30
   Case studies evaluation ………………… During regular class work
   Self-learning evaluation ……………….. during regular class work

7.3- Grading System
   Mid-Term Exam an assignments 20%
   Final Term Exam 50%
   Oral Exam. 20%
   Practical Exam 10%

8- List of References
   8.1- Course Notes
   Department course notes (lectures and practical)
   8.2- Required Books (Text Books)
       None
   8.3- Recommended Books
       8.3.2- Turner, AS and McIlwraith, CW (1989): Techniques in Large Animal Surgery, W.B. Saunders & Wilkins.
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8.4- Periodicals, Web Sites, … etc
www.Pubmed.com

9- Facilities Required for Teaching and Learning
- Appropriate teaching accommodation (teaching rooms and surgery rooms)
- Experimental animals
- Drugs, analgesics, anesthetics
- Anesthetic machines
- Surgical instruments and other equipments
- X-ray machines and room + related equipments

Course Coordinator (Course Professor): Prof. Dr. M. T. Nassef
Head of Department: Prof. Dr. M.T. Nassef

Date: 19 / 02 /2006

3- Development of teaching method
Improvement and enhancement of teaching methods especially in the practical lesson was conducted on the bases of self learning method (see enclosed CDs and books). Increase the practical dose for students in performance of both small surgery and assistance with major operations. Implementation of case history, clinical and laboratory diagnosis -based specific therapy for enhancement of students professional skills in the area of diseases control and treatment.

4- Assessment of students:
This will be done on the following bases:

a- Practical examination
This will be performed on measuring the professional skill of the student in the recognition and diagnosis of diseases. In addition certain assignment for each student will be nominated to be done. Finally the activity in the campaigns of veterinary work will be taken in consideration.

b- **Oral examination:**

This will be conducted to measure professional skills of the student which cannot be measured except by oral examination taking in consideration the quality, rate, and reality of performance.

c- **Mid term examination:**

This will be conducted at any time during the term but not earlier than the 6 week study and can be repeated from time to time to measure the apprehension of the student to the given course.

d- **Final year written examination:**

This will be conducted on the following bases:

1- The examination must be done as objective test and avoidance of essay tests as for as possible. The objective tests are based on true and false questions or multiple choice question (MCQ) or matching items or short answers.

**5- Raising awareness and enhancing skills and capability of the faculty staff:**

This was done periodically in the form of seminars, lectures, and workshops for the sake of enhancement of educational process.