

**Department of Biology**

**College of Science**

**University of Salahaddin**

**Subject: Hematology**

**Course Book – 5 courses**

**Lecturer's name: Dr. Kareem Khoshnow Hamad**

**Academic Year: 2018/2019**

**Course Book**

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| **1.Course name** | **Epidemiology, Virology, Immunology, Sceintific skills and Fish ecology** |
| **2. Lecturer in charge** | **Kareem Khoshnow Hamad** |
| **3. Department/ College** | **Biology department/ college of science** |
| **4. Contact** | **e-mail: kk\_hamad@yahoo.com** **kareem.hamad@su.edu.krd.** |
| **5. Time (in hours) per week**  | **Theory: 11 (devided by 2 semesters)** **Practical: 17 ( devided by 2 semesters)**  |
| **6. Office hours** | **8 hours per week** |
| **7. Course code** | **-** |
| **8. Teacher's academic profile**  | I awarded M.Sc. in fish parasitology in 1993 and pursuit in biology department, college of science, Salahaddin university in 1995 as assistance lecturer. Then, I started to work in the same department, as an assistant lecturer. Then I finished the Ph.D. in university of Agriculture-Faisalabad, Pakistan and then upgrading to lecturer in 2014. **The teaching experience is both theoretical and practical including:****Undergraduate:****Immunology****Virology****Epidemiology****Medical Bacteriology****Fish ecology****Seintific skills**. **Postgraduate:*** Virology
* Epidemiology of Nematodes

2017-still I amSupervising MSc Student.**List of Publications****Dr. Kareem Khoshnow Hamad*****B.V.M. & S (D.V.M), M.Sc., Ph.D******Field of specialization: Parasitology******Department of Biology******College of Science, Salahaddin University***Academic year 2018-2019 **6 papers have been published****Published papers in domestic and abroad journals****1- “Antinematicidal Activity of *Nicotiana tabacum* L. Leaf Extracts to Control Benzimidazole- Resistant *Haemonchus contortus* in Sheep”****Pakistan Veterinary Journal****Pak Vet J, 33(1): 85-90, 2013****Year of publication: 2013****Kareem Khoshnow Hamad§\*, Zafar Iqbal, Zia ud Din Sindhu, Rao Zahid Abbas, Ahrar Khan1, Ghulam Muhammad2 and Bill Epperson3****Kareem Khoshnow Hamad\*, Zafar Iqbal, Zia ud Din Sindhu and Ghulam Muhammad1****Department of Parasitology, 1Department of Clinical Medicine and Surgery, University of Agriculture, Faisalabad,****Pakistan****\*Corresponding author: kk\_hamad@yahoo.com****2- “Combination of *Nicotiana tabacum* and *Azadirachta indica*: A Novel Substitute to Control Levamisole and Ivermectin-Resistant *Haemonchus contortus* in Ovine”****Pakistan Veterinary Journal****Pak Vet J, 33(1): 85-90, 2014****Year of publication: 2014****Kareem Khoshnow Hamad§\*, Zafar Iqbal, Zia ud Din Sindhu, Rao Zahid Abbas, Ahrar Khan1, Ghulam Muhammad2 and Bill Epperson3****Department of Parasitology; ¹Department of Pathology; 2Department of Clinical Medicine and Surgery, Faculty of Veterinary Science, University of Agriculture, Faisalabad-38040, Pakistan; 3Department of Pathobiology and Population Medicine, College of Veterinary Medicine, Mississippi State University, PO Box6100, 240 Wise Centre Drive, MS39762, USA; §Department of Biology, College of Science, University of Salahaddin, Kurdistan Region of Iraq****\*Corresponding author:** **kk\_hamad@yahoo.com*****REVIEW ARTICLE*** **3-“COMBINED STRATEGIES TO CONTROL ANTINEMATICIDAL -RESISTANT GASTROINTESTINAL NEMATODES IN SMALL RUMINANTS ON ORGANIZED FARMS IN PAKISTAN”**  **Pakistan Journal for Agricultural Science****Pak. J. Agri. Sci., Vol. 51(1), 241-249; 2014****Year of publication: 2014** **Kareem Khoshnow Hamad\*** **Department of Parasitology, University of Agriculture-38040 Faisalabad, Pakistan** **\*Corresponding author’s e-mail:** **kk\_hamad@yahoo.com*****Review article*****4-** **“Control of antinematicidal-resistant gastrointestinal nematodes in tamed small ruminants: achievements, trends and prospectives”****ZANCO Journal of Pure and Applied Sciences****ZJPAS (2017), 29 (3); 62-77****Year of publication: 2017** **Kareem Khoshnow Hamad1\*, Fikry Ali Kadir1 and Hero Omar Hamad3** **1Department of Biology, College of Science, Salahaddin University-Erbil** **2Department of Medical Laboratory Technique, Medical Technical Institute, Kurdistan Region -Iraq*****Review article*****5-** **“Phytotherapeutics: As anticipating substitutes to synthetic drugs in combating antinematicidal-resistant gastrointestinal nematodes of small ruminants”****ZANCO Journal of Pure and Applied Sciences****ZJPAS (2018), 30 (4); 102-114****Year of publication: 2018** **Kareem Khoshnaw Hamad, Sherwan Tayib Ahmed, Rezan Kamal Ahmed, Qaraman Mamakhidr Koyee** **Department of Biology, College of science, Salahaddin University, Kurdistan Region of Iraq****6- “Assessment of *Azadirachta indica* seed kernel extracts to restrict the rampancy of antinematicidal –resistant *Haemonchus contortus* in ovine”****ZANCO Journal of Pure and Applied Sciences****ZJPAS (2018), 30 (5); 29-43****Year of publication: 2018****Kareem Khoshnaw Hamad****Department of Biology, College of science, Salahaddin University, Kurdistan Region of Iraq** |
| **9. Keywords** | Viral diseases, immunological disorders, Epidemic ailments, Bacterial diseases, Fish habitats |
| **10. Course overview:**  These basic sciences are scientific branches that deal with human disorders. Credit hours will be designated for theory lectures and three credit hours for laboratory. The course will contain an introductory part, in which basic concepts of basci sciences are introduced and major terms are defined; then, specialized topics will be tackled in a systematic approach to cover the major diseases of human being in addition to zoonotic diseases. Epidemiology and virology are dynamic fields that have always been on the frontier of clinical investigation within the scope of human disease, therefore student can get secure employment through having more scientific knowledge about all blood disorder. The best way for investing their quality in making private laboratory. |
| **11. Course objective:**The course is especially planned for undergraduate students who intend to work in diagnostic laboratories. Upon the completion of the course, students would have benefited from the following objectives of the course:A- Teaching students the risks of viral diseases and their diagnosis, protection.B- Students will undestand the spread of different ailments.C- The functions of immune system and its components. |
| **12. Student's obligation*** Students should attend all lectures and not miss any lecture time.
* Additionally, for each lecture, the student should prepare and follow up with sufficient studying time to cover the material presented in the class during that lecture.
* It is highly advised not to accumulate material until before the examination time. Cramming will definitely weaken the student's ability to understand and retain valuable information.
* Students prefer to attend all the seminars on time which held in our department especially seminar about basic sciences.

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| **13. Forms of teaching**Teaching with technology can deepen student learning by supporting instructional objectives.* Data Show Projector
* Blackboard
* Video
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| **14. Assessment scheme**Breakdown of overall assessment and examination**Grading System:** Exam No. 1 (Theory): 12.5%Exam No.2 (Theory) : 12.5% Mean Examination (Theory) : 12.5 %Practical Examination : 7.5%Total =20 %Final examination: 10 practical + 20 theory = 30% 20+30 = **50%** |
| **15. Student learning outcome:**1. Interpret basic sciences for diagnosis purposes.2- Understand and be able to communicate the normal physiology and pathophysiological conditions associated with dysfunction of various organ diseases.3. Understand the aetiology, pathophysiology and laboratory diagnosis or a wide range of conditions including viral, bacterial and immunological disorders.4. Communicate scientific concepts clearly, concisely and logically.5. Practise basic sciences within the laboratory environment safely and with due regard to occupational health and safety guidelines.  |
| **16- Course contents: they are incorporated in attached files of lectures****20. References:****1- Principles of Immunology. Basant Kumar Sinha, 1st edition, 2007.**2-Virella, G., 1997. Microbiology and Infectious Diseases. 3rd Ed., Mass Publishing Company.3-Brooks, G.F., J.S. Butel and S.A. Morse, 2001. Medical Microbiology. 26th Ed., Lange Medical Books/McGraw-Hill.4-Radostits, O.M., C.C. Gay, D.C. Blood and K.W. Hinchcliff, 2003. Veterinary Medicine, a text book of the diseases of cattle, sheep, pigs, goats, and horses. 9th Ed., WB Saunders.**5- A textbook of Virology and Viral Diseases, by Dilip K. Sharma, 2009.****6- The Merck Manual, 9th edition, 1998** |
| **21. Peer review پێداچوونه‌وه‌ی**  |