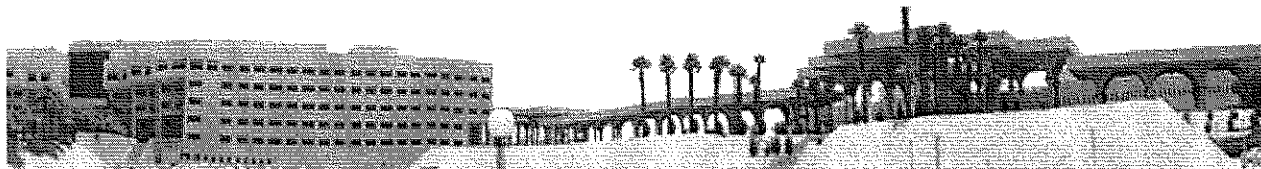




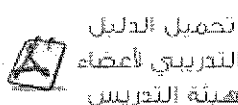
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par1202

mic1202

Basic Microbiology	
Course No.	par.1202
Credit hour	٣(٢ Theoretical+3 Practical)
Prerequisite	General Biology

Aims & Objectives:

This Course is designed to introduce the student to the study of parasitology. It will consider parasites of medical importance and in particular, will focus attention on those parasitic diseases indigenous to Saudi Arabia and the Gulf region. The Course will cover the classification, general morphology, life-cycle patterns, diseases transmission, symptoms and the specific sites of parasitic infection in the human body. In the practical component, the student will be introduced to a limited range of laboratory methods and diagnostic techniques, employed in the examination of specimens, (stool, blood and urine), for parasitic infection in selected cases.

رقمه : ١٢٠٢

اسم المقرر : علم الطفيليات الطبية

رمزه : طفل

المستوى الثاني

عدد الساعات المعتمدة : ٣ (٢ نظري + ٣ عملي)

يقدم هذا المقرر أساسيات علم الطفيليات حيث تشمل الدراسة طرق تصنيف الأوليات الديدان الشريطية الحلزونية من حيث الشكل لكل منها وفسولوجية التركيب والوظائف الحيوية ، دورات الحياة ، وطرق إحداث المرض مع وصف إكلينيكي مختصر لتحديد نسب العينات الإكلينيكية للتشخيص المعمل ، الفحص المجهري ، الاختبارات المعملية والخطوات المتبعة للتعرف على الطفيل بالإضافة إلى طرق العدوى وطرق التحكم والوقاية من المرض.

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Parasitology Lab . (1)

Safety in the laboratories

Laboratory Hazards :

- 1\ Biological hazards (Ex. Parasites , bacteria , viruses) .
- 2\ Chemical hazards (Ex. Acid , Alkaline solutions) .
- 3\ Radiation hazards (Ex. Isotopes) .
- 4\ Electrical hazards .
- 5\ fire hazards .

1\ Infection by :

- a\ inhalation
- b\ ingestion
- c\ mouth pipetting
- d\ skin (cuts , punctures)

2\ Burns by :

- a\ chemicals
- b\ fires
- c\ corrosive chemicals

3\ Cuts by :

- a\ breakage
- b\ damaged glass wares

4\ Harmful effects of toxic chemicals by :

- a\ inhalation
- b\ skin contact
- c\ mouth pipetting

5\ Injury from explosions :

- it maybe chemical explosion of gas explosion.

6\ Electric shocks :

- Like live wire

Factors contributing to lab accidents :

- 1\ Poor training**
- 2\ Lack of concentration**
- 3\ Noisy environment**
- 4\ Carelessness and neglect**
- 5\ Hurrying to finish work on time**

Safe Laboratory

1\ Safe lab. designs :

(walls , floors , doors , fire extinguishers , ventilation , protective safety cabinets storage , adequate waste disposal) .

2\ Preventing lab infections :

- A.no mouth pipetting**
- B.safe handling of specimen**
- C.safe disposal of specimen**
- D.personal hygiene**
- E.lab.coats**
- F.no eating , drinking , smoking**
- G.immunization**

3\ pipetting and dispensing safely

4\ Safe use and storage of chemicals

5\ safe use of equipments

6\ First aid :

- use fire extinguishers**

- mix well

4\ Zinc Sulphate Solution 33% :

Zinc Sulphate (ZnSO) 165ml

Dist.H2O 500ml

- weigh ZnSO and transfer it to clean leak proof bottle
- measure the H2O and add it to chemical
- stopper the bottle , and mix well
- stand the bottle in a container of hot water to dissolve the ZnSO (mix until the chemical is completely dissolve)

5\ Buffered Methylene Blue :

- Solution A (acetic acid solution)

Glacial acetic acid 1.2ml

Distaller H2O 89.8ml

* **Warning :** Glacial acetic acid A is highly corrosive

- **Solution B** (sodium acetate solution)

Sodium acetate 1.6gm

If crystalline sodium acetate 2.6gm

Working solution : (for stain)

Solution A (acetic A solution) 46.3ml

Solution B (sodium acetate solution) 3.7ml

Methylene blue dye .05gm

Distilled H2O 50ml

- pour 50ml distilled H2O into flask
- add solution A , Solution B and mix well
- add .05gm methylene blue and shake till the dye dissolved
- N.B. if the dye dose not dissolve in 15min the solution should be filtered

6\ Buffered Saline : (pH 7.0 – 7.1)

0.4 – 0.7ml of 10g.L.disodium hydrogen phosphate + 500ml physiological saline (0.85%) , NaCl .085gm
Dis.H2O 1L

Lugol,s Iodine :

Iodine	10gm
Potassium Iodine	20gm
Distalled H2O	1000ml

- weigh potassium iodine and put it in leak poof brown bottle and put 1L of dist. H2O the mix to dissolve completely ,
- weigh iodine and add it to the potassium iodine solution till it dissolved then put it in a small brown dropper .

Materials needed in the preparation in parasitology :

- balance
- spatula
- cylinders 50,100,500ml
- flasks 100,250,500ml
- bottles
- funnel
- pipettes
- water bath