

Kingdom of Saudi Arabia

**The National Commission for Academic Accreditation &
Assessment**

COURSE SPECIFICATION

Cytology 212 Bio

28/may2014

Course Specification

Institution: King Khalid University
College/Department College of Science/ Biology Department

A Course Identification and General Information

1. Course title and code: Cytology 212 Bio
2. Credit hours: 2 hours
3. Program(s) in which the course is offered. Biology program, Biology Dept.
4. Name of faculty member responsible for the course: Dr. Ashraf Haider
5. Level/year at which this course is offered: Second semester/1435 H
6. Pre-requisites for this course (if any) 101 Bio
7. Co-requisites for this course (if any) -----
8. Location if not on main campus The main campus

B Objectives

1. Summary of the main learning outcomes for students enrolled in the course. By the end of studying this course the student be able to 1- Recognize levels of cytology and its development and branches 2- Differentiation among different cellular organelles and structures 3- Distinguish between types of cell divisions 4- Studying the chemical structure and function of different cellular organelles 5- Understanding the relationship among different cellular organelles and their function
2. Briefly describe any plans for developing and improving the course that are being

implemented. (eg increased use of IT or web based reference material, changes in content as a result of new research in the field)

1. **Depending on electronic sources as a reference for the course**
2. **Developing the course content depending on recent findings**
3. **Network depending homework including movies and images**

C. Course Description (Note: General description in the form to be used for the Bulletin or Handbook should be attached)

1.1 Topics to be Covered		
List of Topics	No of Weeks	Contact hours
Cell theory , an introduction of cytology	1	2
Methodology in cytology studies	1	2
Chemical bonds, water and macromolecules	1	2
Plasma membrane	1	2
Transport mechanism via plasma membrane	1	2
Membranous organelles	1	2
Non- Membranous organelles	1	2
Fundamental of cellular metabolism	1	2
Non-living cellular inclusions and pigments	1	2
Nucleus	1	2
Mitosis and cell cycle	1	2
Meiosis	1	2
Apoptosis and cell differentiation	1	2
Senescence and carcinogenesis	1	2

Lecture: 2	Tutorial: --	Practical/Field work/Internship:-	Other:--
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3. Additional private study/learning hours expected for students per week. (This should be an average :for the semester not a specific requirement in each week)

2 hours/week for students requirements and uploading questions and percentage of presence over the course website

4. Development of Learning Outcomes in Domains of Learning

For each of the domains of learning shown below indicate:

- A brief summary of the knowledge or skill the course is intended to develop;
- A description of the teaching strategies to be used in the course to develop that knowledge or skill;
- The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.

a. Knowledge

(i) Description of the knowledge to be acquired

- 1- Animal and plant Cell structure**
- 2- Biological terms concerning cytology**
- 3- Types of cell division**
- 4- Cell fate, senescence and apoptosis**

(ii) Teaching strategies to be used to develop that knowledge

- 1- Lectures**
- 2- Multimedia**
- 3- Assays discussion**

(iii) Methods of assessment of knowledge acquire

- 1- Two semestral exams**
- 2- Two final exams**

b. Cognitive Skills

(i) Description of cognitive skills to be developed

- 1- Interpretation of cell division mechanism**
- 2-Analysis of reasons leads to cellular abnormalities as carcinogenesis**
- 3-Development of students ability and quality for obtaining information from different sources**
- 4-Development of writing assay skills**

(ii) Teaching strategies to be used to develop these cognitive skills

- **Lectures**
- **Assays discussion**
- **Witting reports**

<p>(iii) Methods of assessment of knowledge acquired</p> <ul style="list-style-type: none"> • Mini-tests • Theoretical examinations and reviews • Types of question on final and semesteral exams that measure this skill as analyse, interpret andetc
<p>c. Interpersonal Skills and Responsibility</p>
<p>(i) Description of the interpersonal skills and capacity to carry responsibility to be developed</p> <p>1. Information exchange and team work in different discussions and assays</p>
<p>(ii) Teaching strategies to be used to develop these skills and abilities</p> <ol style="list-style-type: none"> 1. Writing reports as team work 2. Student discussion with other cytology staff member in the department in different topics
<p>(iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility</p> <p>1-Evaluations of reports 2-Students discussion</p>
<p>d. Communication, Information Technology and Numerical Skills</p>
<p>(i) Description of the skills to be developed in this domain.</p> <p style="text-align: center;">NA</p>
<p>(ii) Teaching strategies to be used to develop these skills</p> <p style="text-align: center;">1. NA</p>
<p>(iii) Methods of assessment of students numerical and communication skills</p> <p style="text-align: center;">1. NA</p>
<p>e. Psychomotor Skills (if applicable)</p>
<p>(i) Description of the psychomotor skills to be developed and the level of performance required</p>

NA
(ii) Teaching strategies to be used to develop these skills <div style="text-align: center;">NA</div>
(iii) Methods of assessment of students psychomotor skills <div style="text-align: center;">NA</div>

5. Schedule of Assessment Tasks for Students During the Semester			
Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1	First semester Exam	6th	25 degrees
2	Second semester Exam	11th	25 degrees
4	Final exam	16th	50 degrees

D. Student Support

1. Arrangements for availability of teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week) <div style="text-align: center;">10 Office hours / week</div>

E Learning Resources

1. Required Text(s) <ol style="list-style-type: none"> 1. Albert, et al (2004). Essential Cell Biology. (2nd edition).Garland Publishing 2. Alsalehy, abdel Azziz, 1417 H, cytology, Alkheregi publ. Incorp.
2. Essential References
3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List) <ol style="list-style-type: none"> 1. 1 Albert, et al (2004). Essential Cell Biology. (2nd edition).Garland Publishing 2. Alsalehy, abdel Azziz, 1417 H, cytology, Alkheregi publ. Incorp.

4-Electronic Materials, Web Sites etc

Google and Yahoo and different forums for cytology

5- Other learning material such as computer-based programs/CD, professional standards/regulations

Multimedia associated with the text book and the relevant websites

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (ie number of seats in classrooms and laboratories, extent of computer access etc.)

1. Accommodation (Lecture rooms, laboratories, etc.)

Lectures rooms are suitable

2. Computing resources

Computer rooms of the university are suitable

3. Other resources (specify --eg. If specific laboratory equipment is required, list requirements or attach list)

This course does not need labs

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching

- **Student meeting to know their impact about the course**
- **Continues Improvements of course contents**

2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department

- **Questions reviewing for achievement of different skills**

3 Processes for Improvement of Teaching

- **Continues Improvements of course contents**
- **Reviewing of questions and exams by other department members**

4. Processes for Verifying Standards of Student Achievement (eg. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)

Reviewing of questions and exams by other department members

5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

Reviewing the course contents for student demands for finding a suitable job
Evaluation of the degree of benefits f students from the course by free student discussions

