



## Course Syllabus: Cell Structure Development Physiology II - B 213

<b>Division</b>	Biological and Environmental Sciences & Engineering Division
<b>Course Number</b>	B 213
<b>Course Title</b>	Cell Structure Development Physiology II
<b>Academic Semester</b>	Spring
<b>Academic Year</b>	2016/2017
<b>Semester Start Date</b>	01/22/2017
<b>Semester End Date</b>	05/18/2017
<b>Class Schedule</b> (Days & Time)	02:30 PM - 04:00 PM   Mon Thu

Instructor(s)				
Name	Email	Phone	Office Location	Office Hours
Jasmeen Merzaban	jasmeen.merzaban@kaust.ed u.sa	+966128082383	4218, 2, Ibn Al-Haytham (bldg. 2)	Office hours are flexible and students just need to inform the professor when a meeting is desired.
Valerio Orlando	Valerio.Orlando@KAUST.ED U.SA	+966128082674 8082674		Office hours are flexible and students just need to inform the professor when a meeting is desired.

Teaching Assistant(s)	
Name	Email
N/A	N/A

Course Information	
<b>Comprehensive Course Description</b>	The scope of this course is to provide a comprehensive overview of eukaryotic cell structure and the fundamental functional aspects of membranes, organelles, nuclear architecture, genome and epigenome in the context of development, specialization, and integration with the environment. This course will run over the fall and spring semesters.
<b>Course Description from Program Guide</b>	The scope of this course is to provide a comprehensive overview of eukaryotic cell structure and the fundamental functional aspects of membranes, organelles, nuclear architecture, genome and epigenome in the context of development, specialization, and integration with the environment. This course will run over the fall and spring semesters.
<b>Goals and Objectives</b>	The scope of part II of The Cell course will focus on developing an overview of eukaryotic cell in the context of development, stem cells, tissue regeneration, cancer and adaptation and the environment.
<b>Required Knowledge</b>	The Cell: Structure, Development and Physiology I
<b>Reference Texts</b>	1) Molecular Biology of THE CELL, 5th or 6th edition or any other mainstream cell biology text book 2) Epigenetics, by Allis, Reinberg and Jenuwein
<b>Method of evaluation</b>	30.00% - Final exam 25.00% - Presentation 25.00% - Midterm exam 20.00% - Attendance and Participation

<p><b>Nature of the assignments</b></p>	<p><u>Participation/pop quizzes</u> --&gt; the student must come to class prepared to discuss the readings assigned for every class.</p> <p><u>Midterm Exam</u> --&gt; will cover the material discussed up to the end of March</p> <p><u>Journal Article Presentation</u> --&gt; either as individual or in a groups of 2 students, a topic will be given and related articles will be assigned to be presented to the class and instructors.</p> <p><u>Written Proposal and Oral defense = FINAL EXAM</u> --&gt; will be prepared on an individual basis on a topic of choice that was discussed in class.</p> <p>Written topic should be chosen based on topics covered during this course; emphasis should be given to those discussed in this semester.</p> <p>Written proposal should be no longer than 5-6 pages, excluding references and it should be divided in three main sections:</p> <p>Introduction/general background and identification of the question/aim of the proposal (1.5-2 pages)</p> <p>Experimental plan specifying technology, expected results, coherence with the rest of the outlined aims of the proposal (2-3 pages)</p> <p>Final discussion and conclusions (1 page).</p> <p>Proposal should be handed in by the last day of classes</p> <p>Oral presentation should recap the topic and, like for the written proposal, introduce the question, then discuss the experimental plan with some emphasis also on the technologies and final outcome of the project. Altogether 20min presentation (~20 slides) plus 20 min questions.</p> <p>Dates: May 14-18. Final schedule will be circulated later.</p>
<p><b>Course Policies</b></p>	<ul style="list-style-type: none"> <li>-attendance in class is mandatory unless a valid excuse is provided</li> <li>-it is the responsibility of the student to attend classes, exams and submit work on time</li> <li>-plagiarism is not tolerated and this will be monitored for all work submitted</li> </ul>
<p><b>Additional Information</b></p>	

## Tentative Course Schedule

*(Time, topic/emphasis & resources)*

Week	Lectures	Topic		
1	Mon 01/23/2017 Thu 01/26/2017	Mon, Jan 23	Introduction, Expectations, Group Assignments	Orlando
		Thur, Jan 26	Development <i>Ch. 21</i>	Orlando
2	Mon 01/30/2017 Thu 02/02/2017	Mon, Jan 30	Development <i>Ch. 21</i>	Orlando
		Thur, Feb 2	Development	Orlando
3	Mon 02/06/2017 Thu 02/09/2017	Mon, Feb 6	Epigenetics	Orlando
		Thur, Feb 9	Epigenetics	Orlando
4	Mon 02/13/2017 Thu 02/16/2017	Mon, Feb 13	Epigenetics Conference – NO CLASS but must attend lectures	
		Thur, Feb 16	Epigenetics Conference – NO CLASS but must attend lectures	
5	Mon 02/20/2017 Thu 02/23/2017	Mon, Feb 20	Stem Cells	Merzabon
		Thur, Feb 23	Stem Cells	Adamo
6	Mon 02/27/2017 Thu 03/02/2017	Mon, Feb 27	Stem Cells	Adamo
		Thur, Mar 2	Cell cycle <i>Ch. 17 pp. 963-977</i>	Merzabon
7	Mon 03/06/2017 Thu 03/09/2017	Mon, Mar 6	Cell cycle <i>Ch. 17 pp. 978-996</i>	Merzabon
		Thur, Mar 9	Cell cycle <i>Ch. 17 pp. 996-1004, pp. 1010-1018</i>	Merzabon
8	Mon 03/13/2017 Thu 03/16/2017	Mon, Mar 13	Cell Cycle <i>Ch. 17 pp. 1010-1018, Ch. 20 start</i>	Merzabon
		Thur, Mar 16	Cell Death <i>Ch. 18</i>	Merzabon
9	Mon 03/20/2017 Thu 03/23/2017	Mon, Mar 20	Cancer <i>Ch. 20</i>	Merzabon
		Thur, Mar 23	Tutorial for Midterm	Merzabon Orlando
10	Mon 03/27/2017 Thu 03/30/2017	Mon, Mar 27	Tutorial for Midterm	Merzabon Orlando
		Thur, Mar 30	Midterm Exam	
11	Mon 04/03/2017 Thu 04/06/2017	Mon, Apr 10	Group 1:	Merzabon
		Thur, Apr 13	Group 2:	Merzabon
12	Mon 04/10/2017 Thu 04/13/2017	Mon, Apr 17	Group 3:	Merzabon
		Thur, Apr 20	Group 4:	Orlando
13	Mon 04/17/2017 Thu 04/20/2017	Mon, Apr 24	Group 5:	Orlando
		Thur, Apr 27	Group 6:	Orlando

14	Mon 04/24/2017 Thu 04/27/2017	Mon, May 1 Group 7: Thur, May Group 8: 4	Merzaban Merzaban
15	Mon 05/01/2017 Thu 05/04/2017	Mon, May 8 Working on Proposal in class Thur, May 11 LAST DAY OF CLASS – written proposal due	Merzaban Orlando Merzaban Orlando
16	Mon 05/08/2017 Thu 05/11/2017	Week of May 14-18: Final Exams- Oral Defense of Proposal	
17	Mon 05/15/2017 Thu 05/18/2017		
18			

**Note**

The instructor reserves the right to make changes to this syllabus as necessary.