



# Cell Biology and Physiology ZOO (242)

 **START**



## Course objectives

- To be able to know the emergence of modern cell biology and the concept of prokaryotic and eukaryotic cells.
- 2- To enable students with basic knowledge of the biological membrane and their structure and function. This includes transport across membranes, signal transduction and protein targeting.
- 3- To enable students with basic knowledge of structure and function of cell organelles and cytoskeleton system.
- 4. To enable students to learn basic knowledge about the cell cycle, apoptosis and stem cells.



## Topics to be Covered

	No. of Weeks	Contact Hours
The emergence of modern cell biology	1	1
Prokaryotic and Eukaryotic cells	1	1
Biological membranes	2	4
Transports across membranes	2	4
Cell signal transduction and protein targeting.	1	2
Cell Organelles (Structure and Function) and cytoskeleton	3	6
The cell cycle, apoptosis and stem cells.	2	4
Glycolysis, Krebs cycle and oxidative phosphorylation.	2	4



### 5. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	<b>Written exam (1)</b>	<b>5</b>	<b>20%</b>
2	<b>Written exam (2)</b>	<b>8</b>	<b>10%</b>
3	<b>Lab. Exam.</b>	<b>12</b>	<b>30%</b>
4	<b>Final Exam.</b>	<b>13</b>	<b>40%</b>
5			



## Recommended Book

<https://libribook.com/ebook/8310/beckers-world-cell-9th-edition-pdf>



## Becker's World of the Cell

NINTH EDITION

Jeff Hardin • Gregory Bertoni

 Pearson



**1. Cell Biology.**

**Pollard, Earnshaw, Lippincott-Schwartz and Johnson (2017). 3rd Edition. Elsevier.**

**2. Cell Biology:**

**A laboratory Handbook. Celies (2006). 3rd Edition, Academic Press.**

**1 . . Fowcett, The Cell**

**2. Campbell and Reece Text book of BIOLOGY. Pearson Education, Inc. San Francisco**