



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	Written exam (1, 2 and 3)	4, 8, 12	Total 30%
2	Lab. Exam.	12	30%
3	Final Exam.	14	40%
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