

## FACULTY OF AGRICULTURE SCIENCES AND ALLIED INDUSTRIES

## (Principles of Biotechnology)

For

M.Sc. Ag (GPB)



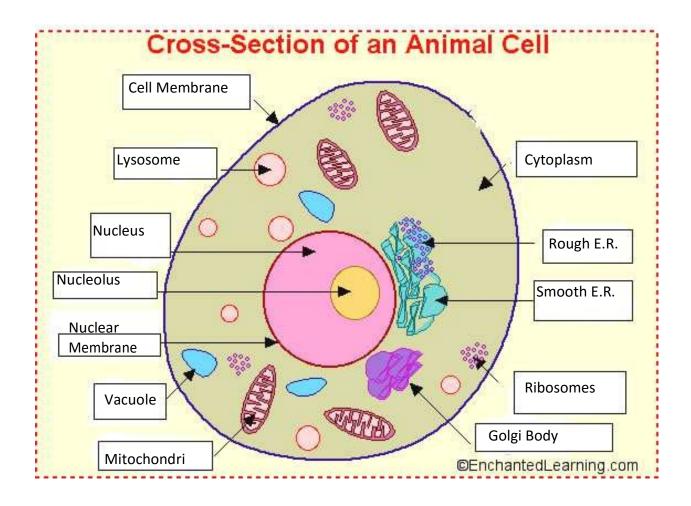
## **Course Instructor**

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## PLANT AND ANIMAL CELLS



| <u>Organelle</u> | <b>Function</b>  |
|------------------|--|
| Cell Membrane    | A double layer that supports and protects the cell. Allows materials in and out. |
| Lysosome         | Contains digestive enzymes that destroy damaged organelles and invaders.         |
| Cytoplasm        | Jelly-like fluid that surrounds and protects the organelles.                     |
| Nucleus          | The control center of the cell. Contains the DNA                                 |
| Nuclear Membrane | Surrounds the nucleus.   |
| Nucleolus        | A round structure in the nucleus that makes ribosomes.                           |
| Vacuole          | Stores food and water.   |
| Golgi Body       | Processes and packages materials for the cell.                                   |
| Mitochondria     | The "Powerhouse". Breaks down food to produce energy in the form of ATP.         |
| Rough E.R.       | Builds and transports substances through the cell. Has ribosomes on it.          |
| Smooth E.R.      | Builds and transports substances through the cell. Does not have ribosomes.      |
| Ribosome         | Helps make protein for the cell.   |

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| Cell Wall        | Gives shape and protection to plant cells.  |
| Chloroplast      | Changes sunlight into sugar for plant cells. Contains a green pigment called chlorophyll. |

What is the difference between plant and animal cells?

