**DEPARTMENT: MEDICAL PHYSIOLOGY**

**BCM1111 – PHYSIOLOGY I**

**BPHARM**

**SEMESTER: MAY - AUGUSTL**

**LECTURER: LOISE KAMAU**

**COURSE OUTLINE**

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| **Week** | **OUTLINE** |
| 1 | Introduction to physiology, Biological control systems; principles of biological control, the internal environment and homeostasis, Negative and positive feedback mechanism |
| 2 | The cell, the cell theory, Prokaryotic cells, eukaryotic cells, cell organelles, the cell membrane |
| 3 | Cell organelles: Cell membrane, Endoplasmic reticulum, Golgi apparatus, Lysosome, Peroxisome, Centrosome and centrioles, Secretory vesicles |
| 4 | Cell organelles: Mitochondria, Nucleus |
| 5 | Body fluid compartments, composition of body fluids, forces governing movement across compartments. Diffusion, Osmosis and active transport. |
| 6 | CAT 1 |
| 7 | Cellular communications; intracellular communication, membrane receptors, their physiology and function |
| 8 | Genetic control of protein synthesis; Purines and pyrimidines, DNA, RNA |
| 9 | Genetic control of protein synthesis; Purines and pyrimidines, DNA, RNA |
| 10 | Cell division and genetics; Mitosis and meiosis |
| 11 | Cell division and genetics: Mitosis and meiosis |
| 12 | Mitosis and meiosis |
| 13 | End of Term exams |
| 14 | End of Term Exams |