**MCB 305: Microbial Physiology and Biochemistry (3 Units)**

**LECTURERS IN CHARGE: DR.S.O.KAREEM, PROF. I. AKPAN AND DR. F. OLUWAFEMI**

**COURSE CONTENT**

A review of cell structure and function, bacterial cell wall synthesis, microbial synthesis of nucleic acids and proteins and their regulations; the nutritional types of different bacteria in relation to their energy metabolism and biosynthetic activities; dynamic of microbial growth; enzymes and enzymes kinetics; biochemistry of microbial process such as electron transport regulation, respiration and oxidative phosphorylation; heterotrophic and biosynthetic pathways; biosynthesis of microbial products; buffer preparation

Course deals with fundamental physiological and metabolic process of bacteria; emphasis on growth, function of cell structure, varieties of energy metabolism, metabolic regulation, and differentiation at the prokaryote level. Practical involves components; and metabolism of the bacterial cell; emphasis on techniques of analysis of metabolism and molecular structure.