

SYLLABUS :-

Microbial taxonomy including modern approaches of taxonomy such as DNA homology and numerical taxonomy. Different groups in bacteria. Morphology and cell structure of prokaryotes and eukaryotes (bacteria; fungi, algae and viruses); different culture techniques; isolation and preservation methods. Microbial metabolism: nutrition; Media and methods; effect of environment; metabolic products of industrial importance. metabolic pathways. amphotrophic and biosynthetic. Growth; Synchronous and asynchronous, pure culture; growth inhibitory substances. Effect of environment; Sporulation and cell differentiation; Water; food and milk microbiology; Transformation, conjugation and transduction. Plasmids as vectors, Deletions, base pair substitutions and frame shift mutations.