M.Sc.,(Ag) MICROBIOLOGY

AGM 611 PRINCIPLES OF MICROBIOLOGY (2+1)

Course outcomes:

CO 1: They will understand the recent advances in the field of microbiology.

CO 2: Students will able to describe the structure and characteristics of different types of microorganisms.

CO 3: Students will understand the principles and basic techniques of isolation, cultivation, identifying and Microorganisms

CO 4: Student will able to identify the microbes based on molecular and serological techniques.

CO 5: Able to place a microorganism in its systematic taxonomic position.

AGM 612 MICROBIAL GENETICS (2+1)

Course outcome:

CO 1: They will understand about the fundamental aspects of microbial genetics, nucleic acid structure and its function.

CO 2: They will understand Genetic variability such as mutation and genetic recombination mechanism and able to develop efficient strains

CO 3: Students are exposed to Genetic engineering techniques

CO 4: Students will understand the Model systems in Genetic analysis

CO 5: Will give an Account on the applications of genetic engineering in Industry, Agriculture and Medicine.

AGM 613 FOOD AND FERMENTATION TECHNOLOGY (2+1)

Course outcome:

CO 1: The students will be aware of the spoilages and diseases caused by microbes on food and dairy products

CO 2 : They will be able to preserve the food without contamination

CO 3: They can apply the techniques in the production of fermented food and dairy products

CO 4 : They will be knowing the food safety and quality control measures

CO 5: Students will get job opportunities in food and Dairy industries.

AGM 621: MICROBIAL PHYSIOLOGY (2+1)

Course outcome:

CO 1 : The students will be able to understand the basic physiological process that can be taken place in a cell

CO 2 : They will be knowing the catabolic process of various pathways in which energy production takes place in a cell and how the energy is utilized for the reproduction and sporulation

CO 3 : They will gain knowledge on the microbial growth kinetics

CO 4 : Students will understand the role of microbes and their physiological functions in the evolution of life on earth.

CO 5: Students will be able to select suitable sources of nutrients for efficient production of metabolites

AGM 622 SOIL MICROBIOLOGY (2+1)

Course outcome:

CO1: The students will be able to understand the different role of microbes in transformation of various plant nutrients and the factors influencing the process

CO2;The students will gain practical knowledge on the quantitative and qualitative estimation of soil microbes

CO3: The students will understand the soil microbial biomass its role in soil fertility, biodegradation and diversity of soil microbes

CO4: Students will understand about the plant microbe interactions

CO5: The students will be able to apply the different techniques of mass production of microbial inoculants

AGM 623 ENVIRONMENTAL MICROBIOLOGY (2+1)

Course outcome

CO1: The students will be able to understand different types of pollution and their impact on environment.

CO2: They will be able to employ microorganisms and genetic engineering of genes for treating, recycling and abatement of water and soil pollution.

CO3: The student will be aware of the current environmental issues on global and national level
CO4: Students will understand the concept of Global warming, Ozone depletion, and acid rain.
CO5: The will acquire knowledge on the Indian environmental laws and Acts and their personal responsibility in protecting the environment

AGM 624 MICROBIAL MANAGEMENT OF ORGANIC WASTE (1+1)

Course outcome

CO1: At the completion of the course, students will be able to understand the different types of wastes, their characteristics and the techniques involved in the processing, recovery and recycling of wastes.
CO2: They will know about the various composting techniques and liquid waste management methods.
CO3: Student will learn about the indicator organism E coli contamination in water
CO4: They will understand how to utilize of organic wastes for biogas production.
CO5: Student will able to learn about the mass production of SCP production