

Course outline Mycology

Year 1

1. Definition & Origin and place of fungi amongst microorganisms
Historic background, Characteristics that distinguish fungi from other groups of eukaryotes
2. The significance of fungi
Ways in which fungi are beneficial and harmful
3. Morphology & cellular organization of fungi
Fungal forms: Single cell fungi septate hyphae, aseptate hyphae and mycelia, understand dimorphism
4. Nutrition and growth of fungi
Mode of nutrition and nutrient requirements, growth requirements and growth patterns
5. Reproduction of fungi
Asexual spore types, blastospores, arthrospores, etc; basic types of sexual spores
6. Classification of fungi
Compare and contrast the three divisions of fungi with respect to the formation of sexual spores
7. Distribution, habitat, dissemination & mode of contamination
8. Pathogenic role of Fungi: virulent factors, fungal disease mechanisms, and host defense mechanisms to fungi infections
9. Laboratory diagnosis of fungal infections

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Year 2

- 1- Diagnosing fungal diseases
- 2- Classification of fungal infections
- 3- Superficial /Cutaneous mycoses (Dermatophytoses, candidiasis, pityriasis, Sporotrichosis, histoplasmosis etc)- diagnoses & management
- 4- Subcutaneous mycoses (Mycetomas, chromomycoses - diagnoses & management
- 5- Systemic mycoses (Aspergillosis, systemic candidiasis, cryptococcosis, pneumocystosis etc)- diagnoses & management
- 6- Emerging fungal infections (Zygomycoses fusariosis, scedsporosis) diagnoses & management
- 7- Antifungals: Sensitivity testing & Clinical relevance of resistance