

| No. | Course Information | |
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| 1. | Unit name: | Microbiology III |
| 2. | Code: | BioT 31022 |
| 3. | Classification: | Core subject |
| 4. | Credit value: | 3.5 |
| 5. | Semester/Year Offered: | 1/3 |
| 6. | Pre-requisite: | BioT 21022& BioT 22022 |
| 7. | Mode of delivery: | Presentations, Lectures |
| 8. | Assessment system and breakdown of marks: | Tutorial |
| | Tutorial | 30% |
| | Mid-term exam | 35% |
| | Final exam | 35% |
| 9. | Academic staff teaching unit: | Department of Biotechnology |
| 10. | <p>Course outcome of unit: After completion of this course, students will be able to</p> <ol style="list-style-type: none"> 1. to understand the transmission route of infectious agents and barriers to this pathogens 2. to describe the human infectious diseases caused by pathogen, viruses, and fungal and algae 3. to develop skills in methods of isolating microbes, culturing microbes, examining the morphology of microbes 4. to explain the control of microorganisms by chemical and physical methods 5. to describe antimicrobial agents and antibiotic susceptibility tests 6. to develop skill in laboratory procedures and safety | |
| 11. | <p>Synopsis of unit: The course will cover the important aspect of microbial genus that contains human pathogens. In course study, human microbial disease, physical and chemical methods to control the microorganisms would be studied. This course will cover antimicrobial agents for industrial, commercial, environmental, pharmaceutical and medical applications. This course introduces students to the basic principles and concepts in mechanics. This course will cover a strong background of various types of microorganisms; include microbe diversity, metabolism type-based classification, factors that determine the growth and their control techniques, microbial ecology and biotechnological aspects of microbes.</p> | |
| 12. | <p>Topics</p> <ol style="list-style-type: none"> 1. Human microbial disease 2. Infectious diseases 3. Bacterial diseases in humans 4. Viral diseases in humans 5. The Control of Microorganisms 6. Antimicrobial Agents 7. Membrane Transport | |
| 13. | <p>Main reference:</p> <ul style="list-style-type: none"> • Stuart Hogg , “Essential Microbiology” , 2005 , The University of Glamorgan, UK | |
| 14. | <p>Additional references:</p> <ul style="list-style-type: none"> • Glazer, AN & Nikaido, H. 2007. ‘Microbial Biotechnology’: Fundamentals | |

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| | of Applied Microbiology (2 nd Edition). Cambridge University Press |
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- Harley, Prescott, "Laboratory Exercise in Microbiology, 5th Edition", The McGraw-Hill Companies, 2002.
- Harley, Prescott, Klein, "Microbiology, 5th Edition", The McGraw-Hill Companies, 2002.