



## UNIVERSITI TEKNOLOGI MARA

### CBE541: MICROBIOLOGY LAB

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| <b>Course Name (English)</b>  | MICROBIOLOGY LAB <b>APPROVED</b>  |
| <b>Course Code</b>  | CBE541  |
| <b>MQF Credit</b>   | 1   |
| <b>Course Description</b>   | The purpose of this course is to provide fundamental training in handling and recognition of microorganisms. The selected laboratories help the student to identify the important role of the microbes in daily life application. This course exposed the students with the laboratory skills required in microbiology such as microscopy, sterile technique, cultivation techniques, isolation techniques and identification and manipulation of microorganisms. |
| <b>Transferable Skills</b>  | Microbiology  |
| <b>Teaching Methodologies</b>   | Lab Work, Discussion  |
| <b>CLO</b>  | CLO1 Observe the microbial structures and perform tests for microbial identification<br>CLO2 Develop independence on laboratory and research skills and sources of scientific information<br>CLO3 Collect, analyze and present data scientifically pertaining to microbiology experiments   |
| <b>Pre-Requisite Courses</b>  | No course recommendations   |
| <b>Topics</b>   |   |
| <b>1. LAB 1: Aseptic technique and media preparation</b><br>1.1) n/a    |   |
| <b>2. LAB 2: Pure culture techniques</b><br>2.1) n/a                    |   |
| <b>3. LAB 3: Staining and observation of microorganisms</b><br>3.1) n/a |   |
| <b>4. LAB 4: Ubiquity of bacteria</b><br>4.1) n/a                       |   |
| <b>5. LAB 5: Survey of Microorganisms</b><br>5.1) n/a                   |   |
| <b>6. LAB 6: Identification of Microorganisms</b><br>6.1) n/a           |   |

| Assessment Breakdown  | %       |
|-----------------------|---------|
| Continuous Assessment | 100.00% |

| Details of Continuous Assessment | Assessment Type | Assessment Description | % of Total Mark | CLO                |
|----------------------------------|-----------------|------------------------|-----------------|--------------------|
|                                  | Assignment      | Rubrics                | 20%             | CLO1 , CLO2 , CLO3 |
|                                  | Test            | Test                   | 20%             | CLO1 , CLO2 , CLO3 |
|                                  | Written Report  | 6 lab reports          | 60%             | CLO1 , CLO2 , CLO3 |

| Reading List | Reference Book Resources   |
|--------------|--|
|              | Brown,A.E, 2005, <i>Benson's Microbiological Applications</i> , 9 Ed., McGraw Hill |

| Article/Paper List                                    |
|---|
| This Course does not have any article/paper resources |

| Other References                              |
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| This Course does not have any other resources |