



## UNIVERSITI TEKNOLOGI MARA

### BMS672: TOPICS IN BIOTECHNOLOGY

<b>Course Name (English)</b>	TOPICS IN BIOTECHNOLOGY <b>APPROVED</b>
<b>Course Code</b>	BMS672
<b>MQF Credit</b>	2
<b>Course Description</b>	This course is designed to allow students to use the knowledge and skills gained over the past semester to evaluate and analyse a scientific report, service or solution developed using biotechnology tools. The course is partly conducted on a distance learning mode, where students are required to do a series of intensive literature survey and critical reading, discuss with their assigned lecturers, submit reading reports and give an oral presentation.
<b>Transferable Skills</b>	Critical reading, Literature analysis, Report writing, Oral presentaion
<b>Teaching Methodologies</b>	Blended Learning, Discussion, Presentation, Directed Self-learning , Journal/Article Critique, Supervision
<b>CLO</b>	<p>CLO1 Extract and explain the core points from a scientific review article on a topic/ subject in biotechnology</p> <p>CLO2 Critically analyze selected scientific articles on the same subject matter, including pointing out limitations, suggesting possible improvements and appraising the impact of the scientific work and findings contained within the articles</p> <p>CLO3 Collate and critically analyze information on a given specific topic, orally present the analysis and response appropriately to questions raised</p>
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. Selection of topics</b> 1.1) 1.1 Agricultural biotechnology 1.2) 1.2 Environmental biotechnology 1.3) 1.3 Industrial biotechnology 1.4) 1.4 Medical biotechnology 1.5) 1.5 Food biotechnology 1.6) 1.6 Other related biotechnology	
<b>2. Extraction of relevant data</b> 2.1) 2.1 Problem statement and hypothesis 2.2) 2.2 Objectives 2.3) 2.3 Methodology	
<b>3. Summary of article</b> 3.1) 3.1 Problem statement and hypothesis 3.2) 3.2 Objectives 3.3) 3.3 Methodology - appropriateness 3.4) 3.4 Data analysis - soundness 3.5) 3.5 Major findings	
<b>4. Critical analysis</b> 4.1) 4.1 Shortcomings/ Limitations 4.2) 4.2 Suggestions for improvement 4.3) 4.3 Impact of major findings	

**5. Critique, presentation and response to queries**

- 5.1) 5.1 Select article
- 5.2) 5.2 Critical analysis
- 5.3) 5.3 Discussion
- 5.4) 5.4 Oral presentation
- 5.5) 5.5 Response to questions

**6. Critical analysis of selected literature**

- 6.1) 6.1 Critical analysis of article
- 6.2) 6.2 Report writing

Assessment Breakdown		%	
Continuous Assessment		100.00%	

  

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Article Test #4. Students are given 48 hours to read given a challenging scientific article, after which they will submit answer to a set of questions.	15%	CLO2
	Assignment	Article #1. Data extraction and summary of results.	20%	CLO1
	Assignment	Article #2. Data extraction, summary of data analysis and major findings.	25%	CLO2
	Presentation	Article #3. Sourced by student with the help of tutors. Critical analysis and video presentation.	40%	CLO3

  

Reading List	Recommended Text
	<ul style="list-style-type: none"> <li>• Roy van den Brink-Budgen 2010, <i>Critical Thinking for Students</i>, 4th edition Ed., Ten, How to Books Limited London, UK [ISBN: 1845283864]</li> <li>• John Butterworth, Geoff Thwaites 2005, <i>Thinking Skills</i>, 1 Ed., 44, Cambridge University Press United Kingdom [ISBN: 978-0521-5214]</li> <li>• Anne Thomson 2008, <i>Critical Reasoning: A Practical Introduction</i>, 3 Ed., 7, Routledge USA and Canada [ISBN: 978-041544587]</li> <li>• Tracy Bowell, Gary Kemp 2009, <i>Critical Thinking: A Concise Guide</i>, 3 Ed., 7, Routledge USA and Canada [ISBN: 978-041547183]</li> <li>• Stella Cortell 2011, <i>Critical Thinking Skills: Developing Effective Analysis and Argument (Palgrave Study Skills)</i>, 2 Ed., 11, Palgrave Macmillan New York [ISBN: 978-023028529]</li> </ul>
Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources