



## UNIVERSITI TEKNOLOGI MARA

### BDY521: NATURAL RESOURCES ECONOMICS

<b>Course Name (English)</b>	NATURAL RESOURCES ECONOMICS <b>APPROVED</b>
<b>Course Code</b>	BDY521
<b>MQF Credit</b>	3
<b>Course Description</b>	This course provides opportunity for students to comprehend the basic economic concepts. Students will also learn the theories of efficient utilization of natural resources and discusses issues related to current practices of use of natural resources. It also discusses issues of sustainability, conservation, and preservation. Teaching methods include case studies, lectures, laboratory time and field work.
<b>Transferable Skills</b>	On completion of the course the student will be able to apply the concept of natural economics into a sustainable management of natural resources and able to understand the issues on economic issues related to biodiversity management in planning.
<b>Teaching Methodologies</b>	Lectures, Tutorial, Discussion
<b>CLO</b>	CLO1 To explain the concepts and approach of basic economic. CLO2 To identify the theories of efficient utilization of natural CLO3 To analyse issues related to current practices of use of natural resources CLO4 To describe sustainability, conservation, and preservation
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. Law of Diminishing Marginal Returns, Demand, Marginal Willingness to Pay</b> 1.1) The law of diminishing marginal utility 1.2) The law of demand	
<b>2. Consumer Surplus; Law of Increasing Opportunity Cost, Supply</b> 2.1) Supply and demand 2.2) Consumer surplus and producer surplus	
<b>3. Types of Resources</b> 3.1) Resource flows, natural resources and environmental resources	
<b>4. Classification of Natural Resources</b> 4.1) Renewable and nonrenewable resources	
<b>5. MAI Rule of Harvesting</b> 5.1) Biological basic of trees and forest 5.2) The economics of forest harvesting	
<b>6. Optimal Timber Harvesting Rules: Single Harvesting</b> 6.1) Timber harvesting	
<b>7. Safe Yield Use Principle of Ground Water</b> 7.1) Principles of groundwater management 7.2) Sustainable groundwater use	
<b>8. Equimarginal Principle of Allocation of Surface Water</b> 8.1) Marginal user cost 8.2) Benefit-cost analysis	
<b>9. Problems of Water Rights Transfer</b> 9.1) Economic issues in water rights	

<b>10. Sustainable Fishery Harvesting Rules</b> 10.1) Fishery management 10.2) Sustainable yield for fishery
<b>11. Dynamic Model</b> 11.1) The dynamic model of open access resources
<b>12. Static Model</b> 12.1) The static model of open access resources
<b>13. John Rawl's sustainability principle as non declining welfare Solow-Hartwick</b> 13.1) Sustainable development
<b>14. Sustainability rule of non declining capital</b> 14.1) Weak and strong sustainability

Assessment Breakdown	%
Continuous Assessment	50.00%
Final Assessment	50.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Assignment	20%	CLO3
	Discussion	Participation in class discussion	10%	CLO2
	Test	Test	20%	CLO1

Reading List	Recommended Text	<ul style="list-style-type: none"> <li>Tietenberg, T. H. &amp; Lewis, L. 2018, <i>Environmental and Natural Resource Economics</i>, 11th Ed., Routledge, Taylor and Francis Group [ISBN: 9781138632301]</li> </ul>
	Reference Book Resources	<ul style="list-style-type: none"> <li>Hackett, S. &amp; Sahan T. M. Dissanayake 2010, <i>Environmental and Natural Resources Economics: Theory, Policy, and the Sustainable Society</i> 4th Ed., Routledge, Taylor and Francis Group [ISBN: 978-076562494]</li> </ul>

Article/Paper List	This Course does not have any article/paper resources
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Other References	<ul style="list-style-type: none"> <li>Book Field, B. C. 2016, <i>Natural Resource Economics: An Introduction (3rd Ed.)</i>, Waveland Press.</li> <li>Book Perman R., Ma, Y., Common, M., Maddison D. &amp; McGilvray, J. 2011, <i>Natural Resource and Environmental Economics (4th Ed.)</i>, Pearson United Kingdom</li> </ul>
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