



UNIVERSITI TEKNOLOGI MARA

WTE346: LIGNOCELLULOSIC FIBER COMPOSITE WORKSHOP

<b>Course Name (English)</b>	LIGNOCELLULOSIC FIBER COMPOSITE WORKSHOP <b>APPROVED</b>
<b>Course Code</b>	WTE346
<b>MQF Credit</b>	2
<b>Course Description</b>	This is a laboratory course in lignocellulosic fiber/polymer composites aimed at giving the student a broad knowledge on the processes involved in the manufacture of lignocellulosic fiber/polymer related products.
<b>Transferable Skills</b>	Practical skills
<b>Teaching Methodologies</b>	Lectures, Lab Work, Practical Classes
<b>CLO</b>	CLO1 Explain the principle and process involved in lignocellulosic fiber composites CLO2 Construct the laboratory procedure for lignocellulosic fiber composites according to TAPPI and ASTM Standard method. CLO3 Complete the scientific investigation of laboratory work according to TAPPI and ASTM standard method
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. Pulp and Paper Manufacture</b> 1.1) 1.1 Fiber morphology 1.2) 1.2 Pulping process 1.3) 1.3 Pulp treatment 1.4) 1.4 Handsheet making 1.5) 1.5 Paper testing	
<b>2. Fiberboard Manufacture</b> 2.1) 2.1 Fiber preparation 2.2) 2.2 Medium density fiberboard manufacture 2.3) 2.3 Board Conditioning and sample cutting 2.4) 2.4 Testing	
<b>3. Wood Plastic Composite (WPC)</b> 3.1) 3.1 Fiber/Filler preparation 3.2) 3.2 WPC board manufacture 3.3) 3.3 Conditioning and sample cutting 3.4) 3.4 Testing	

Assessment Breakdown		%	
Continuous Assessment		100.00%	

  

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Practical	Procedure skill	20%	CLO2
	Practical	laboratory report	70%	CLO3
	Quiz	Quiz	10%	CLO1

  

Reading List	Recommended Text	3. Anonymours 2005, <i>MS1787. Woodbased panels- part1-10</i> , Department of Standards Malaysia Putrajaya
	Reference Book Resources	<ul style="list-style-type: none"> <li>• 1. TAPPI 1999, <i>Fibrous Material &amp; Pulp Testing</i>, TAPPI Press Atlanta</li> <li>• 2. TAPPI 1999, <i>Paper &amp; Paperboard Testing</i>, TAPPI Press Atlanta</li> </ul>

  

<b>Article/Paper List</b>	This Course does not have any article/paper resources
<b>Other References</b>	This Course does not have any other resources