

2.3.2 Basic information of each course/module (Provide information where applicable in Table 3.)

Table 3: Summary of information on each course/module

1.	Name of Course/Module: <b>Management of Technology</b>					
2.	Course Code: <b>BBA 1144</b>					
3.	Name(s) of academic staff: Kamal Abd Razak, MBA					
4.	<p>Rationale:</p> <p>It is important for the students to have the knowledge of technology management. During the learning, the students will be exposed to the whole process of innovation leading to commercialization of products. It is very relevant for institutions of higher learning focusing on research on science and technology. It also essential for those who aspire to be entrepreneurs.</p>					
5.	Semester and Year offered: Semester 2 Year1					
6.	Total Student Learning Time (SLT)	Face to Face				Total Guided and Independent Learning
	L = Lecture T = Tutorial P = Practical O = Others	L	T	P	O	56 (GL) + 104 (NGL) = 160 hours
	48	8	-	-		
7.	Credit Value: 4					
8.	Prerequisite (if any): Nil					
9.	<p>Objectives:</p> <p>This course is aimed to provide the students with;</p> <ul style="list-style-type: none"> <li>• Exposure to understanding of technology and its importance.</li> <li>• Appreciation of the various types and categories of technologies.</li> <li>• Knowledge on the process of innovation of technology and strategy for successful implementation.</li> </ul>					
10.	<p>Learning outcomes:</p> <p>At the end of the semester the students will be able to:</p> <p>LO1: Explain the various concepts in technology management</p> <p>LO2: Conceptualize various technology applications of the past and futures.</p> <p>LO3: Identify and appraise what are the relevant and prevalent technologies available.</p> <p>LO4: Apply technological innovation process into commercialization.</p>					
11.	<p>Transferable Skills:</p> <p>Development of transferable skills such as technology management skills, effective group work, leadership skills, and knowledge in approaches to problem-solving.</p>					
12.	<p>Teaching-learning and assessment strategy</p> <p>Class Participation, Assignments, Team Work, Case Studies, and Presentation.</p>					

13.	<p>Synopsis:</p> <p>The course is an eye opener for students who are new to technology innovation. The course consists of the knowledge lectures, discussions, case studies and analysis of scenarios. The course will prepare the students from the basic conceptual theories to practical applications.</p>																			
14.	Mode of Delivery: Lectures/Tutorial/Practical /Class Activities																			
15.	<p>Assessment Methods and Types:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">Class Participation</td> <td style="text-align: right;">10%</td> </tr> <tr> <td>Tests</td> <td style="text-align: right;">20%</td> </tr> <tr> <td>Assignments and Presentation</td> <td style="text-align: right;">30%</td> </tr> <tr> <td>Final exam</td> <td style="text-align: right;">40%</td> </tr> <tr> <td></td> <td style="text-align: center;">-----</td> </tr> <tr> <td><b>Total</b></td> <td style="text-align: right;"><b>100%</b></td> </tr> </table>								Class Participation	10%	Tests	20%	Assignments and Presentation	30%	Final exam	40%		-----	<b>Total</b>	<b>100%</b>
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	-----																			
<b>Total</b>	<b>100%</b>																			
16.	Mapping of the course/module to the Programme Aims See Attached																			
17.	Mapping of the course/module to the Programme Learning Outcomes: See attached																			
18.	Content outline of the course/module and the SLT per topic:																			
		Delivery				GL	NGL	SLT												
	Topics	L	T	P	O	Hour	Hour													
	<b>1. Introduction.</b> <ul style="list-style-type: none"> <li>• Technology and its relevance in a society.</li> <li>• Definition of technology.</li> <li>• Various forms of technologies and their classifications.</li> </ul>	4	2	-	-	6	12	18												
	<b>2. Technology Management</b> <ul style="list-style-type: none"> <li>• Definition of technology management.</li> <li>• Concept of management of technology at: <ul style="list-style-type: none"> <li>- a firm level</li> <li>- National / government level.</li> </ul> </li> </ul>	4		-	-	4	8	12												
	<b>3. Technology Management Framework</b> <ul style="list-style-type: none"> <li>• Framework of Science discipline</li> <li>• Framework of Business discipline.</li> <li>• Framework for technology management.</li> </ul>	4		-	-	4	8	12												

	<b>4. Wealth Creation.</b> <ul style="list-style-type: none"> <li>• Historical perspective.</li> <li>• What is meant by wealth creation?</li> <li>• Concept of long-wave cycle.</li> </ul>	4		-	-	4	8	12
	<b>5. The Role of Technology in the Wealth Creation.</b> <ul style="list-style-type: none"> <li>• Evolution of production technology.</li> <li>• Evolution of product technology.</li> <li>• Role and significance of technology in national economy.</li> </ul>	4	2	-	-	6	12	18
	<b>6. Creativity , Science and Technology</b> <ul style="list-style-type: none"> <li>• Creativity factors in invention</li> <li>• The link between Science and Technology.</li> </ul>	2				2	4	6
	<b>7. Managing Technology and Innovation</b> <ul style="list-style-type: none"> <li>• Types of innovation.</li> <li>• Application of creativity and innovation to technology management particularly in product development process.</li> <li>• The process of bringing innovation to market.</li> <li>• Technology-price relationship.</li> <li>• Timing factor and its importance.</li> </ul>	4	1			5	10	15
	<b>8. Management of Technology Paradigms 2</b> <ul style="list-style-type: none"> <li>• Issues in managing technology such as; <ul style="list-style-type: none"> <li>- business environment</li> <li>- structure of management of organization.</li> <li>- Project planning and management.</li> <li>- Management of human resources.</li> </ul> </li> <li>•</li> </ul>	4		-	-	4	8	12
	<b>9. Management of Technology Paradigms 3</b> <ul style="list-style-type: none"> <li>• Principles for managing enterprises.</li> </ul>	2				2	4	6

	<b>10. Trends of Management of Technology</b> <ul style="list-style-type: none"> <li>• Scenario of the twenty-first century;</li> <li>- technology</li> <li>- changes in business environment</li> <li>- communication, integration and collaboration,</li> <li>- education and training.</li> </ul>	2				2	4	6
	<b>11. Technology life cycles.</b> <ul style="list-style-type: none"> <li>• What is the S-curve concept in technological progress?</li> <li>• Life-cycle concept.</li> <li>• Multiple generation technologies.</li> <li>•</li> </ul>	4	1	-	-	5	10	15
	<b>12. Stages in the technology life-cycle</b> <ul style="list-style-type: none"> <li>• Relationship between technology and market interaction ;</li> <li>- push market</li> <li>- pull market.</li> <li>• Competition at different phases of the technology life cycle.</li> </ul> <p>What is technology diffusion?</p>	2				2	4	6
	<b>13. Technology and Innovation</b> <ul style="list-style-type: none"> <li>• Critical three trajectories impacting the innovation process in;</li> <li>- border crossing</li> <li>- emergence of complex technologies.</li> <li>•</li> </ul>	4	1	-	-	5	10	15
	<b>14. The Process of Technological Innovation.</b> <ul style="list-style-type: none"> <li>• Innovation and wealth creation process.</li> <li>• Creative transformation process.</li> </ul>	4	1	-	-	5	10	15
	<b>TOTAL STUDENT LEARNING TIME (SLT)</b>	48	8			56	104	160

18.	<p>Main references supporting the course:</p> <ul style="list-style-type: none"> <li>• Margaret A. White, Garry D. Bruton (2010) <i>The Management of Technology and Innovation: A Strategic Approach</i>. 2<sup>nd</sup> edition, South-Western College Pub.</li> <li>• Dilek Cetindamar, Rob Phaal, David Probert (2010) <i>Technology Management: Activities and Tools</i>. Palgrave Macmillan.</li> <li>• Efraim Turban, Linda Volonino (2011) <i>Information Technology for Management: Improving Strategic and Operational Performance</i>. 8<sup>th</sup> edition, Wiley.</li> </ul> <p>Other References:</p>
19.	<p>Other additional information: Nil</p>