

**Bachelor Sains dan Teknologi  
Kayu dengan Kepujian/**

***Bachelor of Wood Science and  
Technology with Honours***

## STRUKTUR KURIKULUM/ CURRICULUM STRUCTURE

**Nama Program**  
*Program Name* : **Bachelor Sains dan Teknologi Kayu dengan Kepujian/ Bachelor of Wood Science and Technology with Honours**

**Jumlah Kredit**  
**Bergraduat Total Credits** : **126 Jam Kredit/ Credit Hours**  
*to Graduate*

**Tempoh Pengajian**  
*Period of Study* : **8 Semester/ Semesters ( 4 Tahun/ Years )**

**Matlamat Program**  
*Program Outcomes* :

1. Menghasilkan eksekutif yang berpengetahuan, berkemahiran dan profesional dalam bidang perkayuan.  
*Produce knowledgeable, skilled and professional executives in the field of wood science and technology.*
2. Menghasilkan eksekutif yang kompeten dan boleh menyelesaikan masalah dalam bidang perkayuan.  
*Produce competent executive who are capable to solve problems in the field of wood science and technology.*
3. Menghasilkan eksekutif yang mengamalkan pembelajaran sepanjang hayat dan berupaya mengembangkan potensi sumber dan produk dalam bidang perkayuan.  
*Produce executives who practice lifelong learning and are able to extend resource and product potentials in the field of wood science and technology.*

## RINGKASAN HASIL PEMBELAJARAN PROGRAM SUMMARY OF PROGRAM LEARNING OUTCOMES

Program	Pengalaman dan Kefahaman/ <i>Knowledge and Understanding</i>	Kemahiran Praktikal/Practical <i>Skills</i>	Kemahiran kognitif / Cognitive <i>Skills (CTPS)</i>	Kemahiran Berkomunikasi/ <i>Communication Skills (CS)</i>	Kemahiran Interpersonal/ <i>Interpersonal Skills (TS)</i>	Etika dan Professionalisme/ <i>Ethics and Professionalism (EM)</i>	Kemahiran digital dan pendidikan Sepanjang Hayat / <i>Digital Skills and Life-Long Learning (LL)</i>	Kemahiran personal dan keusahawanan/ <i>Personal and Entrepreneurial Skills (KK)</i>	Kepimpinan, autonomi dan tanggungjawab/ <i>Leadership, autonomy and responsibility (LS)</i>	Kemahiran numerasi/ <i>Numeracy Skills (NS)</i>
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
Bachelor Sains dan Teknologi Kayu dengan Kepujian <i>Bachelor of Wood Science and Technology with Honours</i>	38	25	25	14	16	13	11	4	6	3

**1. Kursus Universiti/ University Courses ( 25 kredit/ credits)**

KOD KURSUS/ COURSE CODE	NAMA KURSUS/COURSE NAME	Kr	K	A/T	PRASYARAT/ PREREQUISITE
SKP2101*	Kenegaraan Malaysia/ <i>Malaysian Nationhood</i>	3	3	0	Tiada/ <i>None</i>
FEM2401**	Politik Malaysia Dan Masyarakat/ <i>Malaysian Politics And Society</i>	2	2	0	
SKP3112*	Falsafah dan Isu Semasa/ <i>Philosophy and Current Issues</i>	2	2	0	Tiada/ <i>None</i>
SKP3113**	Falsafah dan Isu Semasa Masyarakat Sipil/ <i>Philosophy and Current Issues in Civil Society</i>				
atau/ or	atau/ or	3	3	0	Tiada/ <i>None</i>
SKP3123**	Penghayatan Etika dan Peradaban di Malaysia/ <i>Internalization of Ethics and Civilization in Malaysia</i>				
SKP3122*	Penghayatan Etika dan Peradaban/ <i>Internalization of Ethics and Civilization</i>	2	2	0	Tiada/ <i>None</i>
LPM2100**	Bahasa Melayu Komunikasi/ <i>Malay Language Communication</i>	2	2	0	Tiada / <i>None</i>
FCE3204	Kemahiran Berfikir/ <i>Thinking Skills</i>	2	2	0	Tiada/ <i>None</i>
KOM3403	Pengucapan Awam/ <i>Public Oration</i>	3	2	1	Tiada/ <i>None</i>
MGM3180	Asas Keusahawanan/ <i>Basic Entrepreneurship</i>	3	2	1	Tiada/ <i>None</i>
PRT2009	Pertanian dan Kehidupan/ <i>Agriculture and Life</i>	2	1	1	Tiada/ <i>None</i>
LPE2301	<i>Academic Interaction and Presentation</i>	3	2	1	LPE2401 atau MUET Band 3-4
LPE2501	<i>Academic Writing</i>	3	2	1	LPE2301
QKK2101	Bakti Siswa	1	0	1	
QKX	Kokurikulum 2/ <i>Co-curriculum 2</i>	1	0	1	

**Nota: \* pelajar tempatan/ local student \*\*pelajar antarabangsa/ international student**

## 2. Kursus Teras/ Core Courses ( 74 kredit/ credits)

KOD KURSUS/ COURSE CODE	NAMA KURSUS/COURSE NAME	Kr	K	A/T	PRASYARAT/ PREREQUISITE
FHH3201	Hasil Hutan Bukan Kayu /Non-Wood Forest Products	3	2	1	Tiada/ None
FHH3207	Teknologi Pulpa dan Kertas/ Pulp and Paper Technology	3	2	1	Tiada/ None
FHH3302	Pemasaran Hasil Hutan/Forest Products Marketing	3	3	0	Tiada/ None
FHH3102	Anatomi Kayu / Wood Anatomy	3	2	1	Tiada/ None
FHH3103	Fizik Kayu / Wood Physics	3	2	1	Tiada/ None
FHH3104	Kimia Kayu / Wood Chemistry	3	2	1	Tiada/ None
FHH3205	Biokomposit/ Biocomposites	3	2	1	Tiada/ None
FHH3202	Pengilangan Dan Pengeringan Kayu/ Sawmilling and Wood Drying	3	2	1	Tiada/ None
FHH3206	Pemesinan Kayu/ Wood Machining	3	2	1	FHH3202
FHH3203	Kemerosotan Kayu dan Rawatan/ Wood Deterioration and Treatment	3	2	1	Tiada/ None
FHH3204	Perekat dan Teknologi Perekatan Kayu/ Wood Adhesive and Adhesion Technology	3	2	1	Tiada/ None
FHH3106	Pengenalan kepada Operasi Hutan/	3	2	1	Tiada/ None
FHM3102	Botani Hutan/ Forest Botany	3	2	1	Tiada/ None
FHS4903	Latihan Industri/ Industrial Training	8	0	8	Tiada/ None
FHS4904	Kem Perhutanan/ Forestry Camp	2	0	2	Tiada/ None
FHS4959	Disertasi Bachelo/ Bachelor Dissertation	6	0	6	Tiada/ None
FHM3112	Kaedah Kuantitatif Dalam Perhutanan/ Quantitative Methods in Forestry	4	3	1	Tiada/ None
FHH3303	Ekonomi Industri Perakayuan/Wood Industry Economics	3	3	0	Tiada/ None
FHM3101	Sains Perhutanan/Forest Science	3	3	0	Tiada/ None
FHH3105	Mekanik Kayu/ Wood Mechanics	3	2	1	Tiada/ None
FHH3301	Perolehan Bekalan Hasil Hutan/ Forest Products Procurement	3	2	1	Tiada/ None
FHH3304	Analisis Operasi Industri Hasil Hutan/ Operation Analysis in Forest Products Industries	3	2	1	Tiada/ None

### 3. Kursus Elektif/ Elective Courses (27 kredit/ credits)

Pelajar pelajar perlu mengambil 27 kredit bagi kursus elektif yang merangkumi 21 kredit Elektif Program dan 6 kredit Elektif Bebas/ BI

#### i. ELEKTIF / ELECTIVE

KOD KURSUS/ COURSE CODE	NAMA KURSUS/COURSE NAME	Kr	K	A/T	PRASYARAT/ PREREQUISITE
FHH3208	Proses Pembuatan Perabot/ <i>Furniture Manufacturing Process</i>	3	2	1	Tiada/ <i>None</i>
FHH3210	Biojisim Dan Biotenaga/ <i>Biomass and Bioenergy</i>	3	2	1	Tiada/ <i>None</i>
FHH4203	Biokomposit Termaju/ <i>Advanced Biocomposite</i>	3	2	1	Tiada/ <i>None</i>
FHH4201	Teknologi Penglitup dan Kemasiapan Kayu/ <i>Wood Coating and Finishing Technology</i>	3	2	1	Tiada/ <i>None</i>
FHH4303	Pengurusan Dan Penggunaan Sisa Kayu/ <i>Wood Waste Management and Utilisation</i>	3	2	1	Tiada/ <i>None</i>
FHH3209	Aplikasi Komputer Dalam Reka Bentuk Produk Kayu/ <i>Computer Application in Wood Product Design</i>	3	1	2	Tiada/ <i>None</i>
FHH4301	Pencemaran Dan Kawalan Dalam Industri Hutan/ <i>Pollution and Control in Forest Industries</i>	3	3	0	Tiada/ <i>None</i>
FHH4302	Sistem Pengawalan Mutu Pemprosesan Kayu/ <i>Wood Processing Quality Control System</i>	3	2	1	Tiada/ <i>None</i>
FHH3305	Analisis Kewangan Industri Hasil Hutan/ <i>Financial Analysis of Forest Products Industries</i>	3	3	0	Tiada/ <i>None</i>
FHH4304	Pengurusan Industri Perhutanan/ <i>Forest Industry Management</i>	3	3	0	Tiada/ <i>None</i>
FHH4305	Perdagangan Kayu Antarabangsa/ <i>International Timber Trade</i>	3	3	0	Tiada/ <i>None</i>
FHH3307	Ergonomik Hutan/ <i>Forest Ergonomics</i>	3	2	1	Tiada/ <i>None</i>
FHH4202	Penambahbaikan Mutu Kayu/ <i>Wood Quality Improvement</i>	3	2	1	Tiada/ <i>None</i>
FHM3306	Undang-Undang Dalam Perhutanan/ <i>Laws in Forestry</i>	3	3	0	Tiada/ <i>None</i>
BB_	Bahasa Global/ <i>Global Language</i>	3			
	Elektif Bebas	3			

Nota/ Notes : Kr = Jam Kredit/ *Credit Hour*, K = Kuliah/ *Lecture*, A = Amali/ *Laboratory*, T=Tutorial

**Nota Penting/Notes :**

1. Pelajar diwajibkan memilih 2 kredit daripada kursus kokurikulum yang ditawarkan oleh universiti/ *It is compulsory for students to take 2 credits of co-curriculum courses offered by the university*
2. *Pelajar perlu melengkapkan pakej keperluan bahasa inggeris seperti jadual Pakej ELEX di atas.*  
*(Butiran lanjut mengenai CEL dan LAX sila rujuk pada Pakej ELEX di atas (halaman 7&8)*  
*Students need to complete the ELEX Package as the table above (page 7&8).*

**SKEMA PENGAJIAN/ STUDY SCHEME****TAHUN 1/ 1<sup>ST</sup> YEAR****SEMESTER 1/ 1<sup>ST</sup> SEMESTER**

KOD KURSUS/ COURSE CODE	NAMA KURSUS/COURSE NAME	Kr	K	A/T
PRT2009	Pertanian dan Kehidupan/ <i>Agriculture and Life</i>	2	1	1
SKP2101*	Kenegaraan Malaysia/ <i>Malaysian Nationhood</i>	3	3	0
FEM2401**	Politik Malaysia Dan Masyarakat/ <i>Malaysian Politics And Society</i>	2	2	0
SKP3112*	Falsafah dan Isu Semasa/ <i>Philosophy and Current Issues</i>	2	2	0
SKP3113**	Falsafah dan Isu Semasa Masyarakat Sivil/ <i>Philosophy and Current Issues in Civil Society</i>			
atau/ or	atau/ or	3	3	0
SKP3123**	Penghayatan Etika dan Peradaban di Malaysia/ <i>Internalization of Ethics and Civilization in Malaysia</i>			
FHM3101	Sains Perhutanan/ <i>Forest Science</i>	3	3	0
FHM3102	Botani Hutan/ <i>Forest Botany</i>	3	2	1
FHH3102	Anatomi Kayu / <i>Wood Anatomy</i>	3	2	1
QKX	Kokurikulum 1/ <i>Co-curriculum 1</i>	1	0	1
<b>JUMLAH/ TOTAL</b>		<b>17</b>	<b>14</b>	<b>3</b>

**SEMESTER 2/ 2<sup>ND</sup> SEMESTER**

KOD KURSUS/ COURSE CODE	NAMA KURSUS/COURSE NAME	Kr	K	A/T
LPE2301	<i>Academic Interaction and Presentation</i>	3	2	1
KOM3403	Pengucapan Awam/ <i>Public Oration</i>	3	2	1
SKP3122*	Penghayatan Etika dan Peradaban/ <i>Internalization of Ethics and Civilization</i>	2	2	0
LPM2100**	Bahasa Melayu Komunikasi/ <i>Malay Language Communication</i>	2	2	0
FHH3201	Hasil Hutan Bukan Kayu/ <i>Non-Wood Forest Products</i>	3	2	1
FHH3103	Fizik Kayu / <i>Wood Physics</i>	3	2	1
FHH3104	Kimia Kayu / <i>Wood Chemistry</i>	3	2	1
<b>JUMLAH/ TOTAL</b>		<b>17</b>	<b>12</b>	<b>5</b>

**TAHUN 2/ 2<sup>ND</sup> YEAR****SEMESTER 1/ 1<sup>ST</sup> SEMESTER**

KOD KURSUS/ COURSE CODE	NAMA KURSUS/COURSE NAME	Kr	K	A/T
LPE2501	<i>Academic Writing</i>	3	2	1
FHH3202	Pengilangan Dan Pengeringan Kayu/ <i>Sawmilling and Wood Drying</i>	3	2	1
FHH3204	Perekat dan Teknologi Perekatan Kayu/ <i>Wood Adhesive and Adhesion Technology</i>	3	2	1
FHH3106	Pengenalan Kepada Operasi Hutan/	3	2	1
FHH3105	Mekanik Kayu/ <i>Wood Mechanics</i>	3	2	1
FHS4904	Kem Perhutanan/ <i>Forestry Camp</i>	2	0	2
<b>JUMLAH/ TOTAL</b>		<b>17</b>	<b>10</b>	<b>7</b>

**SEMESTER 2/ 2<sup>ND</sup> SEMESTER**

KOD KURSUS/ COURSE CODE	NAMA KURSUS/COURSE NAME	Kr	K	A/T
FHH3205	Biokomposit/ <i>Biocomposites</i>	3	2	1
FHH3206	Pemesinan Kayu/ <i>Wood Machining</i>	3	2	1
FHH3301	Perolehan Bekalan Hasil Hutan/ <i>Forest Products Procurement</i>	3	2	1
FHH3203	Kemerosotan Kayu dan Rawatan/ <i>Wood Deterioration and Treatment</i>	3	2	1
FHH3303	Ekonomi Industri Perkayuan/ <i>Wood Industry Economics</i>	3	3	0
MGM3180	Asas Keusahawanan/ <i>Basic Entrepreneurship</i>	3	2	1
<b>JUMLAH/ TOTAL</b>		<b>18</b>	<b>13</b>	<b>5</b>



**TAHUN 3/ 3<sup>RD</sup> YEAR****SEMESTER 1/ 1<sup>ST</sup> SEMESTER**

<b>KOD KURSUS/ COURSE CODE</b>	<b>NAMA KURSUS/COURSE NAME</b>	<b>Kr</b>	<b>K</b>	<b>A/T</b>
FCE3204	Kemahiran Berfikir/ <i>Thinking Skills</i>	2	2	0
FHH3207	Teknologi Pulpa dan Kertas/ <i>Pulp and Paper Technology</i>	3	2	1
FHM3112	Kaedah Kuantitatif Dalam Perhutanan/ <i>Quantitative Methods in Forestry</i>	4	3	1
	Elektif I/ <i>Elective I</i>	3	-	-
	Elektif II/ <i>Elective II</i>	3	-	-
	Elektif III/ <i>Elective III</i>	3	-	-
<b>JUMLAH/ TOTAL</b>		<b>18</b>		

**SEMESTER 2/ 2<sup>ND</sup> SEMESTER**

<b>KOD KURSUS/ COURSE CODE</b>	<b>NAMA KURSUS/COURSE NAME</b>	<b>Kr</b>	<b>K</b>	<b>A/T</b>
FHH3304	Analisis Operasi Industri Hasil Hutan/ <i>Operation Analysis in Forest Products Industries</i>	3	2	1
FHS4959A	Disertasi Bachelo/ <i>Bachelor Dissertation</i>	3	0	3
	Elektif IV/ <i>Elective IV</i>	3	-	-
	Elektif V/ <i>Elective V</i>	3	-	-
	Elektif VI/ <i>Elective VI</i>	3	-	-
<b>JUMLAH/ TOTAL</b>		<b>15</b>	<b>7</b>	<b>6</b>

**TAHUN 4/ 4<sup>TH</sup> YEAR****SEMESTER 1/ 1<sup>ST</sup> SEMESTER**

<b>KOD KURSUS/ COURSE CODE</b>	<b>NAMA KURSUS/COURSE NAME</b>	<b>Kr</b>	<b>K</b>	<b>A/T</b>
FHH3302	Pemasaran Hasil Hutan/ <i>Forest Products Marketing</i>	3	3	0
FHS4959B	Disertasi Bacelor/ <i>Bachelor Dissertation</i>	3	0	3
QKK2101	Bakti Siswa	1	0	1
	Elektif VII/ <i>Elective VII</i>	3	-	-
	Elektif VIII/ <i>Elective VIII</i>	3	-	-
	Elektif IX/ <i>Elective IX</i>	3	-	-
<b>JUMLAH/ TOTAL</b>		<b>16</b>	<b>6</b>	<b>6</b>

**SEMESTER 2/ 2<sup>ND</sup> SEMESTER**

<b>KOD KURSUS/ COURSE CODE</b>	<b>NAMA KURSUS/COURSE NAME</b>	<b>Kr</b>	<b>K</b>	<b>A/T</b>
FHS4903	Latihan Industri/ <i>Industrial Training</i>	8	0	8
<b>JUMLAH/ TOTAL</b>		<b>8</b>	<b>0</b>	<b>8</b>