

**Struktur Program Bioteknologi Tumbuhan (3 laluan) / Plant Biotechnology Programme Structure (3 tracks)**

TAHUN	SEM	TERAS			CITRA UNIVERSITI			LALUAN			JUMLAH U/IS
		Wajib Fakulti (WF)	Wajib Program (WP)	Wajib Major (WM)	Citra Wajib (CW)	Citra Dalam (CD)	Citra Luar (CL)	Keusahawanan (U)	Industri (I)	Keserjanaan (S)	
1	I	LMCE1042/ LMCE1062/ LMCE1072/ LMCE1082	STBP1023 STBP1043			☛ Mana-mana pilihan kursus Citra C1 hingga C6	LMCK1331(C2) LMCK1531(C4) ☛ SKPD1053(C2) ☛ LMCR1412(C4)				10 <sup>^</sup>
	II	LMCE1052	STBP1013 STBP1033		LMCW 1022	STAP2012 (C5) STKP1033 (C6) STPD2143 (C1) STQM1713(C3) STQP2413 (C4) STQS1913 (C3) STSB3462 (C5)	LMCK1421(C3) LMCK1621(C1)				10/12 <sup>^</sup>
2	I	LMCE1062/ LMCE2082/ LMCE2092/ LMCE2103	STBP2022	STAB2153 STBT2013	LMCW 2022 LMCW 2163		LMCK2711(C5) LMCK2811(C6)				17/18 <sup>^</sup>
	II		STBP2013 STBP2023 STBP2033	STBT2022 STBT2012 STBC2012	LMCW 2173		LMCR2243(C2)				21 <sup>^</sup>
3	I	LMCE3051/ LMCE3061/ LMCE3071		STBT3013 STAB3303 STBT3103			☛ TTTM3923(C1) ☛ UUUK4513(C5) ☛ TTTM3113(C6)	CMIE2013 EPEM3024 ☛ EPEM2114 ☛ EPEM3214 ☛ STBT3012 ☛ STQP2513	CMIE2013 STQP2513 ☛ STBT3012 ☛ KKKP4274	STBT3012 STKK1243 ☛ STAB2143 ☛ STAB3143 ☛ STBM3223 ☛ STBP2032	14/13/15 <sup>^</sup>
	II			STBT3442 STBT3992				☛ CMIE2016		STBC3022	4/4/6 <sup>^</sup>
4	I			STBT4996				STBT4013	STBK4213 STBT4013	STBT4013	9/12/9
	II			STBT4886 STBT4896							12
<b>JUMLAH PENUH</b>		5 <sup>*</sup>	23	43	10	10	20	15	15	15	97/99/100
		71 <sup>*</sup>			40			15			126 <sup>*</sup>

**Petunjuk:**

- \* Bagi pelajar MUET 2 mengambil 7 kredit (tambahan 2 kredit). Sila rujuk Senarai Kursus Wajib Fakulti.
- ^ Bilangan unit tidak termasuk jumlah kredit Citra C1-C6 Citra Dalam dan Citra Luar dan Kursus Pilihan (•)
- Kursus Pilihan

**Kursus Citra Universiti**

C1 – Minimum 4 kredit    C2 – Minimum 4 kredit    C3 – Minimum 2 kredit  
 C4 – Minimum 2 kredit    C5 – Minimum 2 kredit    C6 – Minimum 2 kredit

**SENARAI KURSUS/ LIST OF COURSES**

<b>Taraf</b>	<b>Kursus</b>	<b>Tajuk</b>	<b>Title</b>
Wajib Fakulti (WF)	LMCE1042	<i>Breakthrough English (MUET 2)</i>	
	LMCE1052	<i>Bridging English (MUET 2)</i>	
	LMCE1062	<i>Academic Interaction (MUET 2&amp;3)</i>	
	LMCE1072	<i>Academic Literacy (MUET 4)</i>	
	LMCE1082	<i>Page to Stage (MUET 5&amp;6)</i>	
	LMCE2082	<i>Pro-Talk English (MUET 3)</i>	
	LMCE2092	<i>Speak to Persuade (MUET 4)</i>	
	LMCE2103	<i>Advanced Communication Project (MUET 5&amp;6)</i>	
	LMCE3051	<i>Let's Get Talking (MUET 2)</i>	
	LMCE3061	<i>Corporate Storytelling (MUET 3)</i>	
LMCE3071	<i>Professional Communication (MUET 4)</i>		
Wajib Program (WP)	STBP1013	Asas Biologi Molekul	<i>Fundamentals of Molecular Biology</i>
	STBP1023	Biologi Sel	<i>Cell Biology</i>
	STBP1033	Genetik Am	<i>General Genetics</i>
	STBP1043	Asas Mikrobiologi	<i>Fundamental Microbiology</i>
	STBP2013	Biokimia	<i>Biochemistry</i>
	STBP2022	Pengekspresan Gen	<i>Gene Expression</i>
	STBP2023	Teknologi DNA Rekombinan I	<i>DNA Recombinant Technology I</i>
STBP2033	Teknologi DNA Rekombinan II	<i>DNA Recombinant Technology II</i>	
Wajib Major (WM)	STAB2153	Anatomi dan Morfologi Tumbuhan	<i>Plant Anatomy &amp; Morphology</i>
	STAB3303	Biak Baka Tumbuhan	<i>Plant Breeding</i>
	STBC2012	Biologi Molekul Pengkomputeran	<i>Computational Molecular Biology</i>
	STBT2012	Perkembangan Tumbuhan	<i>Plant Development</i>
	STBT2013	Fisiologi Tumbuhan	<i>Plant Physiology</i>
STBT2022	Kultur Tisu Tumbuhan	<i>Plant Tissue Culture</i>	

	STBT3013	Biologi Molekul Tumbuhan	<i>Plant Molecular Biology</i>
	STBT3103	Bioteknologi Tumbuhan	<i>Plant Biotechnology</i>
	STBT3442	Komunikasi Saintifik	<i>Scientific Communication</i>
	STBT3992	Latihan Ilmiah I	<i>Research Project I</i>
	STBT4886	Latihan Industri I	<i>Industrial Training I</i>
	STBT4896	Latihan Industri II	<i>Industrial Training II</i>
	STBT4996	Latihan Ilmiah II	<i>Research Project II</i>
Citra Wajib (CW)	LMCW1022	Asas Keusahawanan dan Inovasi	<i>Fundamentals of Entrepreneurship and Innovation</i>
	LMCW2022	Pengurusan dan Analitik Data	<i>Data Management and Analytic</i>
	LMCW2163	Tamadun Islam dan Tamadun Asia	<i>Islamic and Asian Civilization</i>
	LMCW2173	Hubungan Etnik	<i>Ethnic Relationships</i>
Citra Dalam (CD)	STAP2012 ✖	Geologi Pelancongan (C5)	<i>Tourism Geology (C5)</i>
	STKP1033 ✖	Makanan dan Gaya Hidup (C6)	<i>Food and Lifestyle (C6)</i>
	STPD2143 ✖	Pengenalan Sains Tauhidik (C1)	<i>Introduction to Tauhidic Science</i>
	STQM1713 ✖	Matematik dalam Biologi dan Teknologi (C3)	<i>Mathematics in Biology and Technology (C3)</i>
	STQP2413 ✖	Pengurusan Data dan Pengkomputeran (C4)	<i>Computation and Data Management (C4)</i>
	STQS1913 ✖	Statistik Gunaan (C3)	<i>Applied Statistics (C3)</i>
	STSB3462 ✖	Kitar Semula Bahan (C5)	<i>Recycling (C5)</i>
Citra Luar (CL)	LMCK1331	Komunikasi Efektif (C2)	<i>Effective Communication (C2)</i>
	LMCK1421	Pemikiran Kritikal dan Penyelesaian Masalah (C3)	<i>Critical Thinking and Problem Solving (C3)</i>
	LMCK1531	Kepimpinan dan Kreativiti (C4)	<i>Leadership and Creativity (C4)</i>
	LMCK1621	Etika dan Profesional (C1)	<i>Ethics and Professional (C1)</i>
	LMCK2711	Tanggungjawab Alam Sekitar (C5)	<i>Environmental Responsibility (C5)</i>
	LMCK2811	Sosial dan Kebertanggungjawaban (C6)	<i>Social and Responsibility (C6)</i>
	LMCR1412 ✖	Pengurusan Program Berimpak (C4)	<i>Management of Impactful Programmes (C4)</i>
	LMCR2243	Kemahiran Menulis (C2)	<i>Writing Skills (C2)</i>
	SKPD1053 ✖	Ketrampilan Berbahasa dan Berkomunikasi (C2)	<i>Proficiency in Speech and Writing (C2)</i>
	TTTM3113 ✖	Persekitaran, Gaya Hidup & Teknologi Maklumat (C6)	<i>Environment, Lifestyle and Information Technology (C6)</i>

	TTTM3923	Komputer, Etika dan Sosial (C1)	<i>Computer Ethics and Social (C1)</i>
	UUUK4513	Undang-undang Alam Sekitar (C5)	<i>Environmental Law (C5)</i>
Keusahawanan (U)	CMIE2013	Usahaniaga Asas I	<i>Junior Startup I</i>
	CMIE2016	Keusahawanan Junior	<i>Junior Entrepreneurship</i>
	EPPM2114	Pengurusan Kewangan	<i>Financial Management</i>
	EPPM3024	Pengurusan dan Strategi Pemasaran	<i>Management and Marketing Strategies</i>
	EPPM3214	Pengurusan Sumber Manusia	<i>Human Resource Management</i>
	STBT3012	Bioetika dan Biokeselamatan Sains Tumbuhan	<i>Plant Science Biosafety and Bioethics</i>
	STBT4013	Industri Bioteknologi Tumbuhan	<i>Plant Biotechnology Industry</i>
	STQP2513	Pengenalan Pengurusan Perniagaan	<i>Introduction to Business Management</i>
Industri (I)	CMIE2013	Usahaniaga Asas I	<i>Junior Startup I</i>
	KKKP4274	Rekabentuk Produk	<i>Product Design</i>
	STBK4213	Biokimia dan Industri	<i>Biochemistry and Industry</i>
	STBT3012	Bioetika dan Biokeselamatan Sains Tumbuhan	<i>Plant Science Biosafety and Bioethics</i>
	STBT4013	Industri Bioteknologi Tumbuhan	<i>Plant Biotechnology Industry</i>
	STQP2513	Pengenalan Pengurusan Perniagaan	<i>Introduction to Business Management</i>
Kesarjaanan (S)	STAB3143	Pendekatan Molekul dalam Pemuliharaan	<i>Molecular Approaches in Conservation</i>
	STAB2143	Analisis Statistik Biologi	<i>Biology Statistical Analysis</i>
	STBC3022	Genomik	<i>Genomics</i>
	STBM3223	Interaksi Tumbuhan dan Mikrob	<i>Plant Microbe Interactions</i>
	STBP2032	Genetik Mikrob	<i>Microbial Genetics</i>
	STBT3012	Bioetika dan Biokeselamatan Sains Tumbuhan	<i>Plant Science Biosafety and Bioethics</i>
	STBT4013	Industri Bioteknologi Tumbuhan	<i>Plant Biotechnology Industry</i>
		STKK1243	Kimia Am II

✶ Kursus Pilihan Mengikut Modul