

COURSE CHECKLIST**PROGRAMME: BACHELOR OF SCIENCE IN CELL AND MOLECULAR BIOLOGY WITH HONOURS****University Courses (25 credits)**

	Code	Course Name	Credit Hours	Status
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1	LPE2301	<i>Academic Interaction and Presentation</i>	3(2+1)	
2	LPE2501	<i>Academic Writing</i>	3(2+1)	
3	FCE3204	Kemahiran Berfikir / <i>Thinking Skills</i>	2(2+0)	
4	KOM3403	Pengucapan Awam / <i>Public Oratior</i>	3(2+1)	
5	MGM3180	Asas Keusahawanan / <i>Basic Entrepreneurship</i>	3(2+1)	
6	PRT2009	Pertanian dan Manusia / <i>Agriculture and Man</i>	2(1+1)	
7	SKP2101	Kenegaraan Malaysia / <i>Malaysian Nationhood</i>	3(3+0)	
8	SKP3112	Falsafah dan Isu Semasa / <i>Philosophy and Current Issues</i>	2(2+0)	
9	SKP3122	Penghayatan Etika dan Peradaban / <i>Internalization of Ethics and Civilization</i>	2(2+0)	
10	XXX1234	Kokurikulum / <i>Cocurriculum</i>	1(0+1)	
11	YYY1234	Kokurikulum / <i>Cocurriculum</i>	1(0+1)	

Core Course (67 credit)

	Code	Course Name	Credit	Status
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1	BCH3001	Biokimia Komprehensif I / <i>Comprehensive Biochemistry I</i>	3(3+0)	
2	BCH3002	Biokimia Komprehensif II / <i>Comprehensive Biochemistry II</i>	4(3+1)	
3	BCH3003	Kimia Biologi / <i>Biological Chemistry</i>	3(2+1)	
4	BGY3701	Biostatistik / <i>Biostatistics</i>	3(2+1)	
5	BMY3001	Mikrobiologi / <i>Microbiology</i>	4(4+0)	
6	BMY3201	Teknik Asas Mikrobiologi / <i>Basic Microbiology Techniques</i>	2(0+2)	
7	BSM3101	Biologi Sel dan Perkembangan / <i>Cellular and Developmental Biology</i>	3(3+0)	
8	BSM3201	Biologi Molekul / <i>Molecular Biology</i>	3(3+0)	
9	BSM3202	Kejuruteraan Genetik / <i>Genetic Engineering</i>	4(3+1)	
10	BSM3203	Teknik Penyelidikan dalam Biologi Molekul / <i>Research Techniques in Molecular Biology</i>	3(2+1)	
11	BSM3204	Prinsip Genetik / <i>Principles of Genetics</i>	3(3+0)	
12	BSM3401	Kultur Sel dan Tisu Haiwan / <i>Animal Cell and Tissue Culture</i>	3(2+1)	

13	BSM3402	Imunologi Sel dan Molekul / <i>Cell and Molecular Immunology</i>	3(3+0)	
14	BSM3501	Kultur Sel dan Tisu Tumbuhan / <i>Plant Cell and Tissue Culture</i>	3(2+1)	
15	BSM4201	Genetik Molekul Gunaan / <i>Applied Molecular Genetics</i>	4(3+1)	
16	BSM4301	Bioinformatik / <i>Bioinformatics</i>	3(2+1)	
17	BSM4901	Latihan Industri / <i>Industrial Training</i>	6(0+6)	
18	BSM4904	Pembelajaran Perkhidmatan dalam Biologi Sel dan Molekul / <i>Service Learning in Cell and Molecular Biology</i>	1(0+1)	
19	BSM4959	Disertasi Bachelior / <i>Bachelor Dissertation</i>	6(0+6)	
20	BSM4991	Seminar / <i>Seminar</i>	1(0+1)	
21	BTC3002	Komersialisasi dan Isu Semasa Bioteknologi / <i>Commercialisation and Current Issues in Biotechnology</i>	2(2+0)	

Elective Courses (33 credits)

	Code	Course Name	Credit Hours	Status
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Pelajar dikehendaki mengambil 21 kredit dari kursus yang tersenarai dalam kumpulan I (Kursus Elektif Teras Biologi Sel dan Molekul), 6 kredit dalam kumpulan II (Elektif Pengurusan dan Kemanusiaan) dan 6 kredit dari kumpulan III (Elektif Bebas) termasuk 3 kredit kursus bahasa global. / <i>Student must take 21 credits from the list in Core Elective Course, 6 credits from Management and Humanities Elective and 6 credits from Elective include global language course.</i>				
I) Kursus Elektif Teras Biologi Sel dan Molekul (21 kredit) / <i>Elective Courses (Cell and Molecular Biology) (21 credits)</i>				
1	BCH3108	Enzimologi / <i>Enzymology</i>	4(3+1)	
2	BCH4301	Biokimia Tumbuhan / <i>Plant Biochemistry</i>	3(3+0)	
3	BCH4308	Teknik dalam Metabolomik / <i>Techniques in Metabolomics</i>	3(2+1)	
4	BMV4302	Virologi / <i>Virology</i>	3(3+0)	
5	BSM4101	Mikroteknik / <i>Microtechniques</i>	4(3+1)	
6	BSM4203	Diagnostik Molekul / <i>Molecular Diagnostics</i>	2(2+0)	
7	BSM4204	Genomik Fungsian / <i>Functional Genomics</i>	3(3+0)	
8	BSM4501	Kultur Sel dan Tisu Tumbuhan Gunaan / <i>Applied Plant Cell and Tissue Culture</i>	4(3+1)	
9	BSM4502	Biologi Sel dan Molekul Tumbuhan Gunaan / <i>Applied Plant Molecular and Cell Biology</i>	4(3+1)	
10	BSM4503	Biologi Molekul Perkembangan Tumbuhan / <i>Molecular Biology of Plant Development</i>	4(4+0)	
11	BSM4601	Kejuruteraan Protein / <i>Protein Engineering</i>	4(3+1)	
12	BSM4602	Proteomik / <i>Proteomics</i>	4(3+1)	
13	BSM4603	Biologi Struktur / <i>Structural Biology</i>	3(3+0)	

14	BSM4701	Bahan Nano dan Bioteknologi / <i>Nanomaterials and Biotechnology</i>	3(3+0)	
15	BTC3003	Instrumentasi dalam Penyelidikan Bioteknologi / <i>Instrumentation in Biotechnology Research</i>	3(2+1)	
16	BTC3004	Penulisan Saintifik dalam Bioteknologi / <i>Scientific Writing in Biotechnology</i>	3(3+0)	
17	BTC3201	Teknologi Fermentasi / <i>Fermentation Technology</i>	4(3+1)	
18	BTC4001	Biokeselamatan dan Bioetika / <i>Biosafety and Bioethics</i>	2(2+0)	
19	BTC4205	Mikrobiologi Industri / <i>Industrial Microbiology</i>	3(2+1)	
20	PLP3204	Patologi Tumbuhan Asas / <i>Fundamentals of Plant Pathology</i>	3(2+1)	
II) Elektif Pengurusan dan Kemanusiaan (6 kredit) / Management And Humanity Elective (6 credits)				
1	ACT3112	Perakaunan Pengenalan / <i>Introductory Accounting</i>	4(3+1)	
2	ACT3211	Pengurusan Kewangan / <i>Financial Management</i>	3(3+0)	
3	ECN3010	Prinsip Ekonomi / <i>Principles Of Economics</i>	3(3+0)	
4	MGM3101	Prinsip Pengurusan / <i>Principles of Management</i>	3(3+0)	
5	MGM3113	Gelagat Organisasi / <i>Organizational Behavior</i>	3(3+0)	
6	MGM3211	Prinsip Pemasaran / <i>Principles of Marketing</i>	3(3+0)	
7	MGM4174	Pengurusan Perkhidmatan / <i>Services Management</i>	3(3+0)	
8	MGM4184	Pengurusan Perniagaan Kecil / <i>Small Business Management</i>	3(3+0)	
9	MGM4187	Pengurusan Usahaniaga Baharu / <i>New Venture Management</i>	3(3+0)	
10	SKM2300	Pengenalan kepada Multimedia / <i>Introduction to Multimedia</i>	3(2+1)	
III) Elektif Bebas (6 kredit) / Elective (6 credits)				
1	LPA2101	Bahasa Arab Asas I / <i>Basic Arabic Language I</i>	3(2+1)	
2	LPC2101	Bahasa Cina Asas I / <i>Basic Chinese Language I</i>	3(2+1)	
3	LPD2101	Bahasa Jerman Asas I / <i>Basic German Language I</i>	3(2+1)	
4	LPK2101	Bahasa Korea Asas I / <i>Basic Korean Language I</i>	3(2+1)	
5	LPF2101	Bahasa Perancis Asas I / <i>Basic French Language I</i>	3(2+1)	
6	LPJ2101	Bahasa Jepun Asas I / <i>Basic Japanese Language I</i>	3(2+1)	
7		Elektif bebas / <i>Elective</i>	3	