



Biotechnology Study Program Curriculum Universitas Esa Unggul

SEMESTER I (odd semester)						
No	Code of Course	Course	Credits			
			Theory	laboratory practice	practice field	Total
1	KES116	Basic Chemistry	2	1		3
2	IBL322	Biology and biodiversity	3			3
3	IBD112	Basic Biotechnology	3			3
4	ESA 100	Excellent Character Education (Religion, Citizenship, Pancasila, Indonesian Language)	8			8
5	UNV112	English 1	3			3
Total Credits			19	1		20

SEMESTER II (even semester)						
No	Code of Course	Course	Credits			
			Theory	laboratory practice	practice field	Total
1	ESA168	Physics	2	1		3
2	KES 119	Analytical chemistry	2	1		3
3	IBD141	Basic Genetics	2	1		3
4	KES115	Organic Chemistry	2	1		3
5	KES218	Microbiology	3			3
6	KES143	Mathematics	3			3
7	IBD134	Animal and Plant Physiology	2	1		3
Jumlah Beban Studi Semester II			16	5		21

SEMESTER III (odd semester)						
No	Code of Course	Course	Credits			Total
			Theory	laboratory practice	practice field	
1	IBL331	Molecular Biology	2	1		3
2	IBK113	Bioethics	2			2
3	KES200	Biochemistry	2	1		3
4	IBK121	Analytical Instrumentation Biotechnology	3			3
5	IBK512	Biosafety Laboratory Biotechnology (GLP)	2	1		3
6	IBT431	Introduction to Bioinformatics	2	1		3
7	UNV211	Entrepreneurship 1	3			3
Total Credits			16	4		20

SEMESTER IV (even semester)						
No	Code of Course	Course	Credits			Total
			Theory	laboratory practice	practice field	
1	IBT432	Bioinformatics Applications	2	1		3
2	IBT452	Natural Materials Biotechnology	3			3
3	IBL341	Immunology	3			3
4	IBT422	Medical Biotechnology	3			3
5	IBL331	Food Biotechnology	2	1		3
6	IBD111	Cell Biology	2	1		3
7	IBK583	Environmental Biotechnology	3			3
Total Credits			18	3		21

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SEMESTER V (odd semester)						
No	Code of Course	Course	Credits			Total
			Theory	laboratory practice	practice field	
1	IBK531	Biostatistics	2	1		3
2	IBK541	Plant tissue Culture	2	1		3
3	IBT441	Genetics Engineering	2	1		3
4	IBL311	Nanotechnology	3			3
5	IBP651	Stem Cells	2	1		3
6	ESA153	Statistics 1	3			3
7	IBL363	Virology	3			3
			17	4		21

SEMESTER VI (even semester)						
No	Code of Course	Course	Credits			Total
			Theory	laboratory practice	practice field	
1	IBK571	Industry Competence			3	3
2	IBL381	Research Methodology	2		1	3
3	---	Elective courses	3			3
4	---	Elective courses	3			3
5	---	Elective courses	3			3
6	UNV321	English 2 / KWU 2	2		1	3
7	IBK551	Bioprocess (GMP)	2	1		3
Total Credits			15	1	5	21

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No	Code of Course	Elective Courses	Credits			Total
			Theory	laboratory practice	practice field	
1	IBP611	Fermentation Technology	2	1		3
2	IBP631	Nutrigenetics and Nutrigenomics	3			
3	IBP691	Metabolomics	2	1		3
4	IBP641	Gene Therapy	3			
5	IBP661	Bioenergy	2		1	3
6	IBK582	Forensic DNA	3			
7	IBP 681	Environmental Microbiology	2		1	
Total credits for elective courses						9

SEMESTER VII (odd semester)						
No	Code of Course	Course	Credits			Total
			Theory	laboratory practice	practice field	
2	IBK702	Proposal Seminars			2	2
3	IBT451	Bioassays analytical	2	1		3
4	IBK591	Biotechpreneurship	2		1	3
5	IBL610	Microbiology industry	3			3
6	UNV322	English 3/KW 3 (elective)	2		1	3
Total Credits			11	2	4	14

SEMESTER VIII (even semester)						
No	Code of Course	Course	Credits			Total
			Theory	laboratory practice	practice field	
1	IBK 801	Thesis			6	6
Total Credits					6	6
Total						144

The course of independent learning independent campus (MBKM)

Konversi MBKM									
No	Kode	Nama Matakuliah (INA)	Nama Matakuliah (ENG)	SKS	Sem	Sem. KRS	Wajib	Paket	Prasyarat
1	MBK001	Kepemimpinan	Leadership	2			P	T	🔗
2	MBK002	Tanggungjawab	Responsibility	2			P	T	🔗
3	MBK003	Keingintahuan	Curiosity	2			P	T	🔗
4	MBK004	Inisiatif	Initiative	2			P	T	🔗
5	MBK005	Ketekunan	Diligence	2			P	T	🔗
6	MBK006	Kemampuan Bekerjasama	Ability to Cooperate	2			P	T	🔗
7	MBK007	Kemampuan Beradaptasi	Adaptability	2			P	T	🔗
8	MBK008	Kedisiplinan	Discipline	2			P	T	🔗
9	MBK009	Kemampuan Berkomunikasi	Communicating Ability	2			P	T	🔗
10	MBK010	Kemampuan Berpikir Kritis	Critical Thinking Ability	2			P	T	🔗
11	MBK011	Kemampuan Berpikir Analitis	Analytical Thinking Ability	2			P	T	🔗
12	MBK012	Kreativitas	Creativity	2			P	T	🔗
13	MBK013	Kemampuan Literasi Baru (Literasi Data Digital)	New Literacy Capabilities (Digital Data Literacy)	2			P	T	🔗
14	MBK014	Kemampuan Manajemen Diri	Self-Management Ability	2			P	T	🔗
15	MBK015	Kemampuan Memecahkan Masalah	Problem Solving Ability	2			P	T	🔗
16	MBK100	Modul Nusantara	Nusantara Module	4			P	T	🔗

Conversion of Courses in MBKM activities

No	MBKM activities	Duration	Credits	Conversion of courses	Code of course	credits
1	Thesis	Six months	20	Essay	IBK 501	6
				proposal seminars	IBK 702	2
				Research Methodology	IBL 381	3
				Bioassays	IBT 451	3
				Critical thinking ability	MBK 010	2
				New literacy capabilities	MBK 013	2
				Analytical thinking ability	MBK 011	2
Total credits						20
2	internship in industry	Six months	20	Internship	IBK571	3
				Biotechpreneurship	IBK591	3
				Mikrobiologi industry	IBL610	3
				Elective courses	IBP 662	3
				initiative	MBK 004	2
				Cooperation ability	MBK 006	2
				Responsibility	MBK 002	2
				Ability to communicate	MBK 009	2

Total credits						20
3	Credit transfer	Six months	20	Adjusted to the courses at the intended university		12-16 credits
				Discipline	MBK 008	2
				Adaptability	MBK 007	2
				Ability to communicate	MBK 009	2
				New literacy capabilities	MBK 013	2
Total credits						20
4	Entrepreneur	Six months	20 SKS	Entrepreneurship	KWU 3	3
				Biotechpreneurship	IBK591	3
				Bioindustry	IBL610	3
				Fermentation Technology	IBP611	3
				Ability to communicate	MBK 009	2
				creativity	MBK 012	2
				Collaboration ability	MBK 006	2
				problem-solving skills	MBK 015	2
Total credits						20
5	Study Independent	Six months	20	Bioinformatics Applications	IBT432	3
				KKN	IBP 662	3
				Biostatistics	IBK531	3
				street vendors	IBK571	3
				discipline	MBK 008	2
				analytical thinking ability	MBK 011	2
				New literacy capabilities	MBK 013	2
				problem-solving skills	MBK 015	2
Total credits						20