

# **MEMORANDUM OF AGREEMENT**

**BETWEEN**

**UNIVERSITI MALAYSIA PAHANG AL-  
SULTAN ABDULLAH,  
MALAYSIA  
(UMPSA)**

**AND**

**KAZAKH NATIONAL AGRARIAN  
RESEARCH UNIVERSITY,  
KAZAKHSTAN  
(KazNARU)**

This Memorandum of Agreement is made on ....., 2023.

**BETWEEN**

**UNIVERSITI MALAYSIA PAHANG AL-SULTAN ABDULLAH**, a University established under the Universities and University Colleges Act 1971 and having its address at Canseleri Tun Abdul Razak, 26600 Pekan, Pahang Darul Makmur, Malaysia (hereinafter referred to as “**UMPSA**”) of one part;

**AND**

**KAZAKH NATIONAL AGRARIAN RESEARCH UNIVERSITY, KAZAKHSTAN**, University acts under license of the State Institution “Committee for Control in Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan” having its address at 050010, Almaty, Abai Avenue, 8 (hereinafter referred to as “**KazNARU**”) and shall include its lawful representatives and permitted assigns of the other part.

UMPSA and KazNARU may individually be referred to as “Party” or collectively as “the Parties”.

**WHEREAS:**

- A. UMPSA is a competency-based technical university that specializes in the fields of engineering and technology and has taken various initiatives to complement its educational excellence. UMPSA has entered into various collaborative arrangements with other parties to enhance its academic and research activities.
- B. KazNARU is an elite university of innovative type, the leader of the agricultural sector in Kazakhstan and Central Asia with a mission of creations of conditions for the formation of a competitive specialist in demand in the agro-industrial complex and the world scientific and educational space, as well as for the development of a socially oriented, highly cultured and tolerant personality.
- C. For this collaboration UMPSA and KazNARU have agreed to offer the Dual Degree programme structure for program mentioned under Clause 4.1 through credit mobility

which meets the standards and requirements of the Senate of UMPSA and KazNARU, Malaysian Qualifications Agency (MQA) as well as the Ministry of Higher Education, Malaysia and the Accreditation, Certification and Quality Assurance Institute (ACQUIN) as well the Ministry of Science and Higher Education of the Republic of Kazakhstan, particularly with regard to quality assurance.

- D. The Parties hereto have agreed to enter into this Agreement for the purpose of recording the terms and conditions of their cooperation and to govern their respective rights and obligations.

**NOW THEREFORE, it is agreed as follow:**

## **1. DEFINITIONS AND INTERPRETATIONS**

1.1 In this Agreement, the following words and expressions are used in the following senses unless a contrary intention appears in the context.

- a) 'Agreement' means this Memorandum of Agreement together with its schedules and any such modifications, variations, amendments or additions, as the parties to this Agreement may agree in writing from time to time.
- b) 'Authorised Premises' means the designated locality of each party campuses located at UMPSA, Gambang Campus for UMPSA and at KazNARU Second Campus for KazNARU.
- c) 'Board of Examination' means the body in UMPSA and KazNARU.
- d) 'Commencement Date' means the date of commencement of the Agreement.
- e) 'Module' means the course in the interpretation of UMPSA and KazNARU.
- f) 'Course' means a component of a curriculum of a programme that has its own unique code.
- g) 'Compulsory Courses' are courses that are compulsory to be taken by the student.
- h) 'Course Supervisor Fee' means the fee to conduct the quality control.
- i) 'Financial Records' means any documents that relates to the Programme that shall include student registration data that have been mutually agreed by both parties from time to time.
- j) 'Facilities' means any building /structures or parts of it, which shall be used whether directly or indirectly in the delivery of the Programme, which shall

include but not be limited to lecture theatres, classrooms, library services, relevant engineering laboratories and relevant computer laboratories.

- k) 'Home institution' means the institution at which a student is originally enrolled and intends to graduate;
- l) 'Host institution' means the institution at which a student is temporarily enrolled as a dual degree exchange student.
- m) 'Liaison Committee' means the list of persons and /or its terms of reference as referred to in **Schedule 1**.
- n) 'Learning Material' means any device, whether electronic, mechanical, photocopying or recording and also includes storage in a retrieval system or transmission in any form or by any means.
- o) 'Programme Coordinator' means the designated officer of UMPSA that is appointed by the Vice Chancellor of UMPSA. This officer shall on behalf of UMPSA be authorised to make and/or amend and/or to agree to any of the regulations or requirements pertaining to the conduct and management of the Programme provided that prior written consent is obtained from UMPSA.
- p) 'Senate' means UMPSA's Senate created under Section 22 of UMPSA's Constitution.
- q) 'Trademark' means each party's Logo, its name 'UMPSA' and 'KazNARU', and any other distinctive design that is associated with **UNIVERSITI MALAYSIA PAHANG AL-SULTAN ABDULLAH** and **KAZAKH NATIONAL AGRARIAN RESEARCH UNIVERSITY, KAZAKHSTAN**.

1.2 Headings to the Clauses of this Agreement are inserted for convenience only and shall not affect the construction or interpretation of this Agreement.

1.3 In this Agreement, unless the context otherwise requires, words denoting the singular member includes the plural and vice versa; words denoting a gender includes every gender and words denoting natural persons include bodied corporate and unincorporated.

## **2. DURATION OF THE AGREEMENT**

This Agreement shall commence on the date of signing (hereinafter referred to as the “Commencement Date”) and shall be effectively in force for a continuous period of FIVE (5) years through the Programme mode of fulltime. However, the parties hereby agree to review the Agreement within first three years to ensure the successfulness of the Program.

## **3. RIGHTS GRANTED**

3.1 Subject to and in accordance with terms hereof both parties shall have: -

- a) The right to operate and conduct the Programme, of which each party has authorised it to do;
- b) The right to use the Trademark and other symbols, insignia, distinctive designs and plans or specifications owned or authorised by UMPSA and KazNARU;
- c) The right to use in the copyright in any printed matter, distinctive features, designs and drawings and any other relevant matter or Learning Materials developed by both parties; and
- d) All other rights and benefits accruing to them by virtue of this Agreement.

3.2 Notwithstanding the rights granted, each party shall not be entitled or permitted to use the Trademark for purposes other than those relating to the conduct or management, marketing and promotion of the Programme and/or part of a written content in other’s prospectus and/or promotional materials without obtaining another party prior written approval.

#### **4. DUAL DEGREE PROGRAMME**

4.1 UMPSA and KazNARU shall collaborate to offer the Dual Degree Programme, leading to the award of the following Degrees.

- i. UMPSA offers Bachelor of Applied Science in Industrial Biotechnology with Honours
- ii. KazNARU offers Bachelor of Technics and Technology – Biotechnology

4.2 The agreed bachelor's degree shall be awarded to students who have fulfilled all requirements set by the UMPSA and KazNARU's Senate for the Programme mode.

1. 4.3 UMPSA shall establish a Study Committee (SC) chaired by the Deputy-Vice Chancellor (Academic and International) of UMPSA and comprise of the Acting Deputy Chairman of the Board – Provost of KazNARU and the relevant appointed personnel by the appointment of UMPSA and KazNARU.

4.4 Entry requirement

Candidates for the dual degree program will be selected by their home institution according to entry requirements of the programme offered by the home institution

4.5 Quality Assurance

Quality assurance of the programme(s), including the maintenance of the academic standards of the programme(s) and its continued approval, will be exercised by UMPSA through monitoring, evaluation and observation during the periodic teaching visits to KazNARU's premise(s). Each parties shall bear the cost incurred for the exercise carried out by their authorized personnel.

#### **5. STUDENT INTAKE**

5.1 The students enrolled for the Programme are expected to commence their studies from September Intake Session 2022/2023 or later upon receiving the approval from the Ministry of Higher Education, Malaysia.

5.2 Both parties are fully responsible to recruit students into the programmes. It is agreed by both parties that the number of students per intake shall be a minimum of FIFTEEN

(15) students per program per academic year. Any deficiencies shall be negotiated between the parties.

- 5.3 Not with standing anything mentioned under clause 5.1, parties hereby agree that in any circumstances should the party failed to get the approval from Ministry of Higher Education, Malaysia each party shall not be held responsible for the unsuccessfulness of the programmes.

## **6. STRUCTURE AND CONTENT**

- 6.1 The students of the Programme shall undergo the full curriculum of the Programme of which the structure is determined and prepared by both parties as set out in **Schedule 2** herein.
- 6.2 English shall be used as the medium of instruction.
- 6.3 Under the premise of not affecting the quality of the Programme and hence the accreditation status of the Programme, each party shall notify the other party in writing should there be any changes regarding the structure and content of the Programme, or any relevant changes made by the management of either party which directly affect the Programme.
- 6.4 Students taking part in this dual degree program will have to get a total credit as provided in **Schedule 2** to be awarded with both degrees. Part of those total credits must be earned at the student's home institution and other part at the host institution involved in this dual degree program.
- 6.5 All the credits and grades awarded by one university to students taking part in this dual degree program will be fully recognized by the other institution.

## **7. ACADEMIC CALENDAR**

The academic sessions, the vacations and the dates of examinations and other forms of assessment shall coincide with the academic calendar of UMPSA and may be amended from time to time by KazNARU with written consent from UMPSA.



## 8. ADMINISTRATION

### 8.1 Head of Academic

The Head/Deputy Head of Academic of both parties shall be responsible for the operational aspects and the assessment as well as the overall development of the Programme. The main function of this officer is to ensure that the appointment of qualified personnel, effective learning and teaching process and other positive developments are put into place for the Programme.

### 8.2 Programme Coordinator

Both parties shall appoint the Programme Coordinator representing to ensure that the Dual Degree Programme progresses efficiently. The duties of the coordinator shall, *inter alia*, include:

- To be responsible for the drawing up the timetable for visitations in a semester;
- To determine the correct number of students enrolled in any semester;
- To be responsible for identifying number of courses in any semester; and
- To co-ordinate all other academic matters (teaching, assignments, examinations, tutorials and Board meeting).

### 8.3 Liaison Committee

8.3.1 To facilitate effective communication between the parties, a Liaison Committee shall be established details of which is presented in **Schedule 1**.

8.3.2 The Director of Centre for Strategic Academic Collaboration, UMPSA shall be the secretary to this Liaison Committee. All communication shall be directed to the following:

Liaison Officer of UMP : Assoc. Prof. Ts. Dr Mohd Ruzaimi bin Mat  
Rejab  
Telephone Number : +609-431 5414  
Facsimile Number :  
Email Address : ruzaimi@ump.edu.my

Liaison Officer of KazNARU: PhD Zhulduz Suleimenova

Telephone Number : +7 707 155 5327

Facsimile Number :

Email Address : zhulduz.suleimenova@kaznaru.edu.kz

8.3.3 The Liaison Committee shall supervise the operations and workings of the Programme but, shall not have the authority to make policy decision which shall fall under the powers of the Vice Chancellor and UMPSA's Senate.

#### 8.4 Hospitality

The Parties shall bear its own costs relating to the activities of the Liaison Committee.

### 9. FINANCIAL IMPLICATIONS

9.1 Students are required to pay their tuition fees on the registration day. The details structure of the tuition fee is attached in **Schedule 3**.

9.2 There is no other payment that can be claimed from third party for this programme.

9.3 Non-compliance by one party of the provision mentioned in **Schedule 3** above and if continued beyond the period of six (6) months would affect the quality of the Programme and would entitle the other party to give notice to end the Programme and/or to instruct such party not to take any further intakes of students.

9.4 In all the situations mentioned in Clause 13 upon expiry of the six (6) month period, the non-compliance shall constitute a dispute between the Parties and either Party may refer the dispute pursuant to Clause 17 herein.

### 10. COSTS

UMPSA shall bear the costs of stamp duty for this Agreement.

## **11. VARIATION OF AGREEMENT**

- 11.1 This Agreement may be varied anytime and from time to time by supplemental agreements in writing and any such variation agreements shall be read and construed as part of this Agreement. In the event of any inconsistency, the Supplemental Agreement shall prevail where both parties must jointly agree on the variation.
- 11.2 UMPSA reserves the right to review the provisions of this Agreement at any time should there be major changes in the administrative structure and organization of KazNARU which in the opinion of may adversely affect the academic standard, the facilities provided and the proper conduct of the teaching and examination activities of the Programme.

## **12. LEGAL RELATIONSHIP**

This Agreement does not create a relationship of principal and agent between the parties nor shall it constitute a partnership.

## **13. TERMINATION**

- 13.1 Both Parties shall have the right to terminate this Agreement by giving SIX (6) MONTHS prior notice in writing to the other Parties.
- 13.2 This Agreement may also be terminated by either Party upon serving notice to the other Party if the other Party fails to observe or perform any of the conditions herein and fail to remedy such breach within four (4) months of the written notice.
- 13.3 Upon termination of this Agreement, the following shall apply:
- 13.3.1 The Parties shall undertake discussion(s) and determine how the current groups of students in the Programme at the time of termination shall be able to complete the Programme; whereby the following applies:
- i. The fees set out in this Agreement shall be applicable to the group of students; and
  - ii. KazNARU agrees and acknowledges that the completion of studies by the group of students shall be the sole responsibility KazNARU, and UMPSA shall reasonably assist KazNARU in this matter according to its discretion.

13.3.2 The termination of the Agreement shall not discharge the Parties of any obligations that have been incurred as at the date of termination.

13.3.3 The Parties shall immediately cease any new student intakes with connection to these Dual Degree Programmes.

#### **14. FORCE MAJEURE**

Each Party reserves the right for reasons of national security, national interest, public order or public health to suspend temporarily, and any force majeure incidents which might occur, either in whole or in part, the implementation of this Agreement which suspension shall take effect immediately after notification has been given to the other Party through diplomatic channel but a party shall advise other party on time of such occurrence that the programme may delayed or terminated upon negotiation between both parties, and duly take effective action and should make proper arrangements of the enrolled students and other matters of programme.

#### **15. INDEMNIFICATION**

The Parties hereby agree that each Party shall indemnify the other Party from and against any expense, loss, damage or liability which the other Party may incur to the extent that the loss, damage or liability as a result of any breach by such Party to perform its duty and obligations under this Agreement.

#### **16. WAIVER**

No waiver by a party of a default under this Agreement shall be effective unless in writing. No such waiver shall be deemed a waiver of any subsequent right or default of a similar or otherwise.

#### **17. NEGOTIATION AND MEDIATION**

17.1 The Parties shall attempt, in good faith, to resolve any dispute relating to or arising out of this Agreement within ninety (90) days, save where expressly agreed otherwise, promptly by negotiation between executives who have the authority to settle the dispute and who are at a higher level of management than those involved directly in the dispute.

All disputes or differences which may arise between the Parties hereto in respect of this Agreement shall be settled amicably through mutual consultation.

- 17.2 If the dispute has not been resolved by negotiation as provided in Clause 18.1 above, UMPSA and KazNARU shall endeavour to settle the dispute within sixty (60) days by a non-binding mediation to be conducted thereupon by an appointed mediator with the mutual consent by the Parties to the dispute.

**18. ENTIRE AGREEMENT**

This Agreement is an integral part of the MoU but supersedes all previous individual agreements or agreement representations (both oral and written) and accordingly contains the final Agreement between the Parties and no Party shall be bound by any undertaking, representations, warranties, promises or the like not recorded nor recited herein.

**19. HEADINGS**

The headings to the Clauses hereto are inserted for convenience only and shall not prevail over the provisions of this Agreement.

**20. ASSIGNMENT**

No Party may assign its rights, title and interest or pursuant to this Agreement to a third party.

**21. VALIDITY AND SEVERABILITY**

Each of the provision herein contained in this Agreement and each of the clause is independent of every other provision to the effect that should any provision of this Agreement be deemed to be invalid and unenforceable, then such determination shall have no effect on any other provision of this Agreement such that all the other remaining provision of this Agreement such that all the other remaining provisions shall remain in full force and effect.

## **22. NOTICES**

- 22.1 Any notice or communication with required to be made hereunder shall be in writing and signed by an authorized person of the Parties and shall be deemed to be sufficiently served if addressed to or left at or forwarded by a prepaid registered post to the Parties at their respective address or by facsimile to the number as each Party may from time to time notify the other.
- 22.2 The respective Parties' address as stated:-

### **UNIVERSITI MALAYSIA PAHANG AL-SULTAN ABDULLAH**

Deputy Vice-Chancellor (Academic and International)

Department of Academic and International Affairs

Universiti Malaysia Pahang Al-Sultan Abdullah

26600 Pekan, Pahang

Malaysia

Telephone: 09-4245450

Facsimile: 09-4245455

Email: [jheaa@ump.edu.my](mailto:jheaa@ump.edu.my)

### **KAZAKH NATIONAL AGRARIAN RESEARCH UNIVERSITY**

Deputy Chairman of the Board-Rector

050010, Almaty,

Abai Avenue 8

KAZAKHSTAN

Telephone: 8 701 731 4758

Facsimile:

Email: [ibragimov.primkul@kaznaru.edu.kz](mailto:ibragimov.primkul@kaznaru.edu.kz)

- 22.3 Any notice shall be deemed to have been duly served if given by facsimile, immediately or given by post fourteen (14) days after posting and in proving the same it shall be sufficient to show that the envelope containing the same was properly addressed, stamped and posted.

**23. TIME**

Time wherever mentioned shall be the essence of this Agreement.

**24. GOVERNING LAW**

24.1 This Agreement shall be governed by Malaysian and/or Kazakhstan law in every particular including formation and interpretation.

24.2 Any proceedings arising out of or in connection with this Agreement may be brought in any Court of competent jurisdiction in Malaysia and/or Kazakhstan.

**25. SCHEDULES**

The schedules annexed to this Agreement shall form an integral part of this Agreement.

**26. COUNTERPARTS**

This Agreement is written in English in duplicate and goes into effect after signed and stamped by both parties where each party shall hold one.

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IN WITNESS whereof the Parties hereunto have executed this Agreement on the year and date written above

Signed for and on behalf of Signed for and on behalf of

**UNIVERSITI MALAYSIA PAHANG  
AL-SULTAN ABDULLAH,  
MALAYSIA**

**KAZAKH NATIONAL AGRARIAN  
RESEARCH UNIVERSITY,  
KAZAKHSTAN**

.....  
**PROF. DATO' TS. DR. YUSERRIE BIN  
ZAINUDDIN**

.....  
**PROF. DR. AKHYLBEK  
KURISHBAYEV**

Vice-Chancellor

Chairman of the Board-Rector

In the presence of;

In the presence of;

.....  
**PROF. IR. TS. DR. AHMAD ZIAD BIN  
SULAIMAN**

.....  
**PROF. DR. PRIMKUL IBRAGIMOV**

Deputy Vice-Chancellor

Deputy Chairman of the Board-Rector

(Academic and International)



**SCHEDULE 1**  
**LIAISON COMMITTEE**

To facilitate effective communication between the parties, a Liaison Committee comprising the following shall be established:

**Universiti Malaysia Pahang:**

1. Deputy Vice-Chancellor (Academic and International)
2. Director of Centre for Academic Innovation & Competitiveness
3. Director of Centre for Academic Strategic Cooperation
4. Dean, Faculty of Industrial Sciences and Technology.
5. Deputy Dean (Academic and Student Affairs), Faculty of Industrial Sciences and Technology.
6. Head of Program (Industrial Biotechnology), Faculty of Industrial Sciences and Technology.

**Kazakh National Agrarian University:**

1. Deputy Chairman of the Board-Rector
2. Acting Deputy Chairman of the Board - Provost
3. Director of the Department of Strategy, Science and International Relations
4. Dean of Zooengineering and food production technology faculty
5. Head of Technology and safety of food products Department
6. Manager for Academic Mobility and dual degree Program

## SCHEDULE 2

### CURRICULUM OF THE PROGRAMME (COURSE MAPPING)

FACULTY OF INDUSTRIAL SCIENCES AND TECHNOLOGY UNIVERSITI MALAYSIA PAHANG AL-SULTAN ABDULLAH					FACULTY OF BIORESOURCES AND TECHNOLOGY KAZAKH NATIONAL AGRARIAN RESEARCH UNIVERSITY			
DEGREE AWARDED: Bachelor of Applied Science in Industrial Biotechnology with Honours					DEGREE AWARDED: Bachelor of Technics and Technology - Biotechnology			
Year	Semester	Course Code	Course Name	Credit Hours	Course Code	Course Name	Credit Hours	ECTS
<b>PROGRAM CORE COURSES</b>								
1	I OR II	BSB1112	INDUSTRIAL BIOTECHNOLOGY	2	OB2206	OBJECTS OF BIOTECHNOLOGY	3	5
		BSB1113	BIOCHEMISTRY	3	BCH22071	BIOCHEMISTRY	2	3
		BSB1102	BIOPHYSICAL CHEMISTRY	2	BIOM3218	BIOMETRICS	3	5
	I OR II	BSB1133	ORGANIC CHEMISTRY	3	BH2211	BIOORGANIC CHEMISTRY	3	5
		BSB1173	MICROBIOLOGY	3	MIKROB2215	MICROBIOLOGY	2	3
		BSB1432	MICROBIOLOGY LABORATORY	2	MIBO3216	METHOD FOR THE STUDY OF BIOLOGICAL OBJECTS	3	5
2	III OR IV	BSB2133	CELL MOLECULAR BIOLOGY	3	MB2211	MOLECULAR BIOLOGY	3	5
		BSB2173	BIOANALYTICAL CHEMISTRY	3	NAH1204	INORGANIC AND ANALYTICAL CHEMISTRY	5	8
	III OR IV	BSB2122	GENETICS	2	GEN2222	GENETICS	3	5
		BSB2143	ENZYME TECHNOLOGY	3	BPBAV4303	BIOTECHNOLOGY OF PRODUCTION OF BIOLOGICAL ACTIVE SUBSTANCES	3	5
		BSB2193	INDUSTRIAL MICROBIOLOGY	3	BM3213	BIOTECHNOLOGY OF MICROORGANISMS	3	5
		BSB2462	INDUSTRIAL MICROBIOLOGY LABORATORY	2	MPE3216	METHOD FOR THE STUDY OF BIOLOGICAL OBJECTS	3	5
3	V OR VI	BSB3123	BIOPROCESS TECHNOLOGY	3	BRZh4311	FERMENTATION TECHNOLOGY	3	5
		BSB3482	BIOPROCESS TECHNOLOGY LABORATORY	2	PB4309	TECHNOLOGY OF PREPARATION OF BIOLOGICALLY ACTIVE SUBSTANCES (PROBIOTICS, PREBIOTICS)	3	5
		BSB3113	GENE TECHNOLOGY	3	MG2220	MOLECULAR GENETIC	3	5
	V OR VI	BSB3472	GENE TECHNOLOGY LABORATORY	2	MGMIDNKPPZ H3224	MOLECULAR GENETIC METHODS FOR THE IDENTIFICATION OF DNA POLYMORPHISM OF BREEDING ANIMALS	3	5
		BSB3163	PLANT AND MAMMALIAN CELL TECHNOLOGY	3	BKKR4227	BIOLOGY OF CULTIVATED PLANT CELLS IN VITRO	3	5
		BSB3442	PLANT AND MAMMALIAN CELL TECHNOLOGY LABORATORY	2				
4	VII	BSB4173	EXTRACTION AND BIOSEPARATION TECHNOLOGY	3	MAPPZH4330	MACHINES AND EQUIPMENT FOR PROCESSING PRODUCT	3	5
<b>ELECTIVE COURSES (CHOOSE ONLY 3)</b>								

3 AND 4	V, VI OR VII	BSB3503	BIOMANUFACTURING	3	8TIB4303	MANUFACTURING TECHNOLOGY OF BIOLOGICAL PRODUCTS	3	5	
		BSB3513	IMMUNOTECHNOLOGY	3	MVB2222	MEDICAL AND VETERINARY BIOTECHNOLOGY	2	3	
		BSB3543	NUTRACEUTICALS AND FUNCTIONAL FOODS	3	FB4227	FOOD BIOTECHNOLOGY	5	5	
		BSB3553	BIOINFORMATICS	3	VR3224	VETERINARY RADIOBIOLOGY	3	5	
		BSB3563	BIOREMEDIATION	3	EB4311	ECOLOGICAL BIOTECHNOLOGY	3	5	
		BSB3593	BIOSENSOR TECHNOLOGY	3	PAB4330	PROCESSES AND DEVICES IN BIOTECHNOLOGY	3	5	
<b>FINAL YEAR PROJECTS AND INDUSTRIAL TRAINING</b>									
3	VI	BSB3312	FINAL YEAR PROJECT I	2	PDP4002	UNDERGRADUATE PRACTICE	2	6	
4	VII	BSB4324	FINAL YEAR PROJECT II	4		STATE EXAMS IN THE SPECIALITY WRITING AND DEFENDING THESIS	1 2	3 7	
	VIII	BSB4814	INDUSTRIAL TRAINING	12	PP2001 PP3001 PP4001	INTERNSHIP 1 INTERNSHIP 2 INTERNSHIP 3	2 2 2	6 6 6	
<b>FACULTY'S COURSES (COMPULSORY TO ALL COURSES)</b>									
1	I OR II	BCS1023	PROGRAMMING TECHNIQUES	3	IKT2105	INFORMATION AND COMMUNICATION TECHNOLOGIES	3	5	
		BSF1222	INDUSTRY SAFETY MANAGEMENT	2	LD2220	LABORATORY WORK	3	5	
2	III OR IV	BPQ1223	PRINCIPLES OF OPERATION MANAGEMENT	3	OA2208	AGRIBUSINESS ORGANIZATION	3	5	
		BSF2112	INDUSTRY QUALITY MANAGEMENT	2	BBS2210	INTRODUCTION TO THE SPECIALTY	3	5	
		BSB2223	LABORATORY QUALITY MANAGEMENT AND VALIDATION	3	TR3308	TECHNICAL REGULATION	4	5	
<b>UNIVERSITY COURSES (COMPULSORY TO ALL COURSES)</b>									
1	I OR II	BUM2123	APPLIED CALCULUS	3	MAT1205	MATHS	3	5	
		UQB1**1	CO-CURRICULUM I	1	UP(O)1402	EDUCATIONAL PRACTICE WITH THEORITICAL	1	2	
		UHL2412	ENGLISH FOR ACADEMIC COMMUNICATION	2	<b>NOT OFFERED</b>				
		BUM2413	APPLIED STATISTICS	3	EAS3209	ECONOMIC ANALYSIS AND STATISTIC	3	5	
		UHC1012	FALSAFAH DAN ISU SEMASA	2	FIL2102	PHILOSOPHY	3	5	
		UHC2022	PENGHAYATAN ETIKA DAN PERADABAN	2	SIK1101	MODERN HISTORY OF KAZAKHSTAN	3	5	
2	III OR IV	UQB2**1	CO-CURRICULUM II	1	UP1002	EDUCATIONAL PRACTICE	2	4	
		UHF1**1	FOREIGN LANGUAGE LEVEL I	1	IYa1103	FOREIGN LANGUAGE	6	10	
		UHS1021	SOFT SKILLS 1	1	PSYH1108	PSYCHOLOGY	2	3	
		UHL2422	ENGLISH FOR TECHNICAL COMMUNICATION	2	<b>NOT OFFERED</b>				
3	V OR VI	UHF2**1	FOREIGN LANGUAGE LEVEL II	1	P-OIYA2202	PROFESSIONALLY ORIENTED FOREIGN LANGUAGE	2	3	
		UGE2002	TECHNOPRENEURSHIP	2	BP2208	BUSINESS PLANNING	3	5	
		UHS2021	SOFT SKILLS II	1	OP2108	LAW BASICS	2	3	

		UHE3**2	ELECTIVE COURSES PBMSK	2	OPN1106	POLITICAL SCIENCE	3	5
		UHL2432	ENGLISH FOR PROFESSIONAL COMMUNICATION	2	<b>NOT OFFERED</b>			

## SCHEDULE 2

### CURRICULUM OF THE PROGRAMME (COURSE MAPPING – YEAR 3, 4)

FACULTY OF INDUSTRIAL SCIENCES AND TECHNOLOGY UNIVERSITI MALAYSIA PAHANG AL-SULTAN ABDULLAH					FACULTY OF BIORESOURCES AND TECHNOLOGY KAZAKH NATIONAL AGRARIAN RESEARCH UNIVERSITY				
DEGREE AWARDED: Bachelor of Applied Science Industrial Biotechnology with Honours					DEGREE AWARDED: Bachelor of Technics and Technology - Biotechnology				
Year	Semester	Course Code	Course Name	Credit Hours	Course Code	Course Name	Credit Hours	ECTS	
<b>PROGRAM CORE COURSES</b>									
3	V OR VI	BSB3123	BIOPROCESS TECHNOLOGY	3	BRZh4311	FERMENTATION TECHNOLOGY	3	5	
		BSB3482	BIOPROCESS TECHNOLOGY LABORATORY	2	PB4309	TECHNOLOGY OF PREPARATION OF BIOLOGICALLY ACTIVE SUBSTANCES (PROBIOTICS, PREBIOTICS)	3	5	
		BSB3113 BSB3472	GENE TECHNOLOGY GENE TECHNOLOGY LABORATORY	3 2	MG2220 MGMIDNKPPZ H3224	MOLECULAR GENETIC MOLECULAR GENETIC METHODS FOR THE IDENTIFICATION OF DNA POLYMORPHISM OF BREEDING ANIMALS	3 3	5 5	
	V OR VI	BSB3163 BSB3442	PLANT AND MAMMALIAN CELL TECHNOLOGY PLANT AND MAMMALIAN CELL TECHNOLOGY LABORATORY	3 2	BKKR4227	BIOLOGY OF CULTIVATED PLANT CELLS IN VITRO	3	5	
<b>ELECTIVE COURSES (CHOOSE ONLY 3)</b>									
3 AND 4	V, VI OR VII	BSB3503	BIOMANUFACTURING	3	8TIB4303	MANUFACTURING TECHNOLOGY OF BIOLOGICAL PRODUCTS	3	5	
		BSB3513	IMMUNOTECHNOLOGY	3	MVB2222	MEDICAL AND VETERINARY BIOTECHNOLOGY	2	3	
		BSB3543	NUTRACEUTICALS AND FUNCTIONAL FOODS	3	FB4227	FOOD BIOTECHNOLOGY	5	5	
		BSB3553	BIOINFORMATICS	3	VR3224	VETERINARY RADIOBIOLOGY	3	5	
		BSB3563	BIOREMEDIATION	3	EB4311	ECOLOGICAL BIOTECHNOLOGY	3	5	
		BSB3593	BIOSENSOR TECHNOLOGY	3	PAB4330	PROCESSES AND DEVICES IN BIOTECHNOLOGY	3	5	
<b>FINAL YEAR PROJECTS AND INDUSTRIAL TRAINING</b>									
3	VI	BSB3312	FINAL YEAR PROJECT I	2	PDP4002	UNDERGRADUATE PRACTICE	2	6	
4	VII	BSB4324	FINAL YEAR PROJECT II	4		STATE EXAMS IN THE SPECIALITY WRITING AND DEFENDING THESIS	1 2	3 7	
	VIII	BSB4814	INDUSTRIAL TRAINING	12	PP2001	INTERNSHIP 1	2	6	
					PP3001	INTERNSHIP 2	2	6	
					PP4001	INTERNSHIP 3	2	6	

UNIVERSITY COURSES (COMPULSORY TO ALL COURSES)								
3	V OR VI	UHF2**1	FOREIGN LANGUAGE LEVEL II	1	P-OIYA2202	PROFESSIONALLY ORIENTED FOREIGN LANGUAGE	2	3
		UGE2002	TECHNOPRENEURSHIP	2	BP2208	BUSINESS PLANNING	3	5
		UHS2021	SOFT SKILLS II	1	OP2108	LAW BASICS	2	3
		UHE3**2	ELECTIVE COURSES PBMSK	2	OPN1106	POLITICAL SCIENCE	3	5
		UHL2432	ENGLISH FOR PROFESSIONAL COMMUNICATION	2	<b>NOT OFFERED</b>			

**SCHEDULE 3**  
**FINANCIAL IMPLICATION**

The aggregable tuition fee is **USD 2,055** per student per program with minimal number of 15 students and the accommodation fee is **waived** for both parties.