

**BS Biotechnology**

<b>BS Biotechnology</b>				
<b>Semester 1</b>				
	<b>Course Code</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>	<b>Sections</b>
	BTHU1003	English I	3(3-0)	3
	BTHU1013	Pakistan Studies	3(3-0)	3
	BTHU1023	Islamic studies	3(3-0)	3
	BTCS1003	Introduction to Computer Science	3(3-0)	3
	BT1203	Physical Chemistry	3(3-0)	3
	BT1303	Introduction to Biotechnology	3(3-0)	3
<b>Semester 2</b>				
	<b>Course Code</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>	<b>Sections</b>
	BTHU1033	English-II	3(3-0)	3
	BTMT1003	Mathematics	3(3-0)	3
	BT1213	Inorganic Chemistry	2(2-0)	3
	BT1213	Inorganic Chemistry - Lab	1(0-1)	3
	BT1223	Organic Chemistry	2(2-0)	3
	BT1223	Organic Chemistry - Lab	1(0-1)	3
	BT1803	Ecology, Biodiversity & Evaluation.-I	3(3-0)	3
	BT1233	Biochemistry-I	2(2-0)	3
	BT1233	Biochemistry-I - Lab	1(0-1)	3
<b>Course Code</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>	<b>Sections</b>	

Semester 3	BTHU2043	English-III (Writing & Comp)	3(3-0)	1
	BTMT2013	Biomathematics	3(3-0)	1
	BT2813	Ecology, Biodiversity & Evolution-II	2(2-0)	1
	BT2813	Ecology, Biodiversity & Evolution-II - Lab	1(0-1)	1
	BT2403	Biological Physics	3(3-0)	1
	BT2243	Biochemistry-II	2(2-0)	1
	BT2243	Biochemistry-II - Lab	1(0-1)	1
	BT2603	Cell Biology	3(3-0)	1
Semester 4				
	<b>Course Code</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>	<b>Sections</b>
	SSC1033	Sociology	3(3-0)	3
	MANAG2013	Marketing Management	3(3-0)	3
	GENE4033	Classical Genetics	3(3-0)	3
	STAT4013	Probability & Biostatistics	3(3-0)	3
	CHEM4013	Analytical Chemistry & Instrumentation	2(2-0)	3
	CHEM4013	Analytical Chemistry & Instrumentation - Lab	1(0-1)	3
	MOLBIO4013	Molecular Biology	3(3-0)	3
5				
	<b>Course Code</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>	<b>Sections</b>
	BIOENG5013	Principles of Biochemical Engineering	2(2-0)	1
	BIOENG5013	Principles of Biochemical Engineering - Lab	1(0-1)	1
	BIOTEC5013	Agriculture Biotechnology	2(2-0)	1

Semester	BIOTEC5013	Agriculture Biotechnology - Lab	1(0-1)	1
	IMMUN5013	General Immunology	3(3-0*)	1
	MICRO1013	Microbiology	2(2-0)	1
	MICRO1013	Microbiology - Lab	1(0-1)	1
	MOLBIO5013	Methods in Molecular Biology	2(2-0)	1
	MOLBIO5013	Methods in Molecular Biology - Lab	1(0-1)	1
Semester 6				
	<b>Course Code</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>	<b>Sections</b>
	GRC1033	Genetic Resources & Conservation	3(3-0)	3
	MICRO6013	Microbial Biotechnology	3(3-0*)	3
	BIOTEC6013	Health Biotechnology	3(3-0)	3
	ENVBT1053	Environmental Biotechnology	3(3-0*)	3
	BIOTEC6033	Food Biotechnology	3(3-0)	3
	BIOTEC6023	Nano-Biotechnology	2(2-0)	3
	BIOTEC6023	Nano-Biotechnology - Lab	1(0-1)	3
Semester 7				
	<b>Course Code</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>	<b>Sections</b>
	GENOM7013	Genomics & Proteomics	3(3-0*)	1
	SEMINR7011	Seminar-I	1(1-0)	1
	BIOINF7013	Bioinformatics	1(1-0)	1
	BIOINF7013	Bioinformatics - Lab	2(0-2*)	1
INDSBT7013	Industrial Biotechnology	3(3-0)	1	

	BT4903	Research Project - I	3(3-0)	1
	CTISSU7013	Cell & Tissue Culture	2(2-0)	1
	CTISSU7013	Cell & Tissue Culture - Lab	1(0-1)	1
<b>Semester 8</b>				
	<b>Course Code</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>	<b>Sections</b>
	VIRO8013	Virology	2(2-0)	2
	VIRO8013	Virology - Lab	1(0-1)	2
	BIOTEC8013	Fermentation Biotechnology	2(2-0)	2
	BIOTEC8013	Fermentation Biotechnology - Lab	1(0-1)	2
	RESMTH8013	Research Methodology & Skill Enhancement	3(3-0*)	2
	SEMINR8011	Seminar-II	1(1-0)	2
	BT4913	Research Project - II	3(3-0)	2
	BIOSAF8012	Biosafety & Bioethics	2(2-0)	2

<b>Fall 2021 Timetable Slots</b>							
<b>Semester #</b>	<b>08:00-09:20</b>	<b>09:30-10:50</b>	<b>11:00-12:20</b>	<b>12:30-13:50</b>	<b>14:00-15:20</b>	<b>15:30-16:50</b>	<b>17:00-18:20</b>
Semester 1	English I (BTHU1003), BSBT, Sec(BT1)	Pakistan Studies (BTHU1013), BSBT, Sec(BT1)	Introduction to Biotechnology (BT1303), BSBT, Sec(BT1)				
	Physical Chemistry (BT1203), BSBT, Sec(CT1)	Islamic studies (BTHU1023), BSBT, Sec(CT1)	Introduction to Computer Science (BTCS1003), BSBT, Sec(CT1)				
Semester 2	Biochemistry-I (BT1233), BSBT, Sec(AT2)	Biochemistry-I - Lab (BT1233), BSBT, Sec(AT2)	Ecology, Biodiversity & Evaluation.-I (BT1803), BSBT, Sec(AT2)				
	English-II (BTHU1033), BSBT, Sec(BT2)	Mathematics (BTMT1003), BSBT, Sec(BT2)	Ecology, Biodiversity & Evaluation.-I (BT1803), BSBT, Sec(BT2)				

MONDAY

	Organic Chemistry (BT1223), BSBT, Sec(CT2)	Inorganic Chemistry (BT1213), BSBT, Sec(CT2)	Inorganic Chemistry - Lab (BT1213), BSBT, Sec(CT2)				
Semester 3	Biochemistry-II - Lab (BT2243), BSBT, Sec(AT3)		Biochemistry-II (BT2243), BSBT, Sec(AT3)	Cell Biology (BT2603), BSBT, Sec(AT3)			
Semester 4			Molecular Biology (MOLBIO4013), BSBT, Sec(AT4)	Marketing Management (MANAG2013), BSBT, Sec(AT4)			
			Sociology (SSC1033), BSBT, Sec(BT4)	Marketing Management (MANAG2013), BSBT, Sec(BT4)			
			Analytical Chemistry & Instrumentation (CHEM4013), BSBT, Sec(CT4)	Classical Genetics (GENE4033), BSBT, Sec(CT4)	Probability & Biostatistics (STAT4013), BSBT, Sec(CT4)		
Semester 5			Methods in Molecular Biology (MOLBIO5013), BSBT, Sec(AT5)	General Immunology (IMMUN5013), BSBT, Sec(AT5)	Methods in Molecular Biology - Lab (MOLBIO5013), BSBT, Sec(AT5)		
Semester 6			Nano-Biotechnology (BIOTEC6023), BSBT, Sec(AT6)	Nano-Biotechnology - Lab (BIOTEC6023), BSBT, Sec(AT6)	Microbial Biotechnology (MICRO6013), BSBT, Sec(AT6)		
			Genetic Resources & Conservation (GRC1033), BSBT, Sec(BT6)	Microbial Biotechnology (MICRO6013), BSBT, Sec(BT6)	Nano-Biotechnology (BIOTEC6023), BSBT, Sec(BT6)		
			Food Biotechnology (BIOTEC6033), BSBT, Sec(CT6)	Health Biotechnology (BIOTEC6013), BSBT, Sec(CT6)	Environmental Biotechnology (ENVBT1053), BSBT, Sec(CT6)		
Semester 7			Cell & Tissue Culture - Lab (CTISSU7013), BSBT, Sec(AT7)	Seminar-I (SEMINR7011), BSBT, Sec(AT7)	Cell & Tissue Culture (CTISSU7013), BSBT, Sec(AT7)		
Semester 8				Fermentation Biotechnology (BIOTEC8013), BSBT, Sec(AT8)	Fermentation Biotechnology - Lab (BIOTEC8013), BSBT, Sec(AT8)	Biosafety & Bioethics (BIOSAF8012), BSBT, Sec(AT8)	
				Virology (VIRO8013), BSBT, Sec(BT8)	Virology - Lab (VIRO8013), BSBT, Sec(BT8)	Seminar-II (SEMINR8011), BSBT, Sec(BT8)	
<b>Semester #</b>	<b>08:00-09:20</b>	<b>09:30-10:50</b>	<b>11:00-12:20</b>	<b>12:30-13:50</b>	<b>14:00-15:20</b>	<b>15:30-16:50</b>	<b>17:00-18:20</b>
Semester 1	English I (BTHU1003), BSBT, Sec(AT1)	Physical Chemistry (BT1203), BSBT, Sec(AT1)	Introduction to Biotechnology (BT1303), BSBT, Sec(AT1)				
	Islamic studies (BTHU1023), BSBT, Sec(BT1)	Introduction to Computer Science (BTCS1003), BSBT, Sec(BT1)	Physical Chemistry (BT1203), BSBT, Sec(BT1)				
	English I (BTHU1003), BSBT, Sec(CT1)	Pakistan Studies (BTHU1013), BSBT, Sec(CT1)	Introduction to Biotechnology (BT1303), BSBT, Sec(CT1)				
Semester 2	English-II (BTHU1033), BSBT, Sec(AT2)	Organic Chemistry (BT1223), BSBT, Sec(AT2)	Organic Chemistry - Lab (BT1223), BSBT, Sec(AT2)				
	Inorganic Chemistry (BT1213), BSBT, Sec(BT2)	Inorganic Chemistry - Lab (BT1213), BSBT, Sec(BT2)	Organic Chemistry (BT1223), BSBT, Sec(BT2)				
	English-II (BTHU1033), BSBT, Sec(CT2)	Mathematics (BTMT1003), BSBT, Sec(CT2)	Biochemistry-I (BT1233), BSBT, Sec(CT2)				
Semester 3	English-III (Writing & Comp) (BTHU2043), BSBT, Sec(AT3)	Biological Physics (BT2403), BSBT, Sec(AT3)	Biomathematics (BTMT2013), BSBT, Sec(AT3)				

TUESDAY

Semester 4			Sociology (SSC1033), BSBT, Sec(AT4)	Analytical Chemistry & Instrumentation (CHEM4013), BSBT, Sec(AT4)	Analytical Chemistry & Instrumentation - Lab (CHEM4013), BSBT, Sec(AT4)		
			Classical Genetics (GENE4033), BSBT, Sec(BT4)	Probability & Biostatistics (STAT4013), BSBT, Sec(BT4)	Analytical Chemistry & Instrumentation (CHEM4013), BSBT, Sec(BT4)		
			Analytical Chemistry & Instrumentation - Lab (CHEM4013), BSBT, Sec(CT4)	Marketing Management (MANAG2013), BSBT, Sec(CT4)	Molecular Biology (MOLBIO4013), BSBT, Sec(CT4)		
Semester 5				Principles of Biochemical Engineering (BIOENG5013), BSBT, Sec(AT5)	Microbiology - Lab (MICRO1013), BSBT, Sec(AT5)	Microbiology (MICRO1013), BSBT, Sec(AT5)	
Semester 6				Genetic Resources & Conservation (GRC1033), BSBT, Sec(AT6)	Food Biotechnology (BIOTEC6033), BSBT, Sec(AT6)		
				Health Biotechnology (BIOTEC6013), BSBT, Sec(BT6)	Environmental Biotechnology (ENVBT1053), BSBT, Sec(BT6)	Food Biotechnology (BIOTEC6033), BSBT, Sec(BT6)	
				Genetic Resources & Conservation (GRC1033), BSBT, Sec(CT6)	Microbial Biotechnology (MICRO6013), BSBT, Sec(CT6)	Nano-Biotechnology (BIOTEC6023), BSBT, Sec(CT6)	
Semester 7				Genomics & Proteomics (GENOM7013), BSBT, Sec(AT7)	Industrial Biotechnology (INDSBT7013), BSBT, Sec(AT7)		
Semester 8				Virology (VIRO8013), BSBT, Sec(AT8)	Research Methodology & Skill Enhancement (RESMTH8013), BSBT, Sec(AT8)	Seminar-II (SEMINR8011), BSBT, Sec(AT8)	
				Fermentation Biotechnology (BIOTEC8013), BSBT, Sec(BT8)	Fermentation Biotechnology - Lab (BIOTEC8013), BSBT, Sec(BT8)	Research Methodology & Skill Enhancement (RESMTH8013), BSBT, Sec(BT8)	
<b>Semester #</b>	<b>08:00-09:20</b>	<b>09:30-10:50</b>	<b>11:00-12:20</b>	<b>12:30-13:50</b>	<b>14:00-15:20</b>	<b>15:30-16:50</b>	<b>17:00-18:20</b>
Semester 1	Islamic studies (BTHU1023), BSBT, Sec(AT1)	Introduction to Computer Science (BTCS1003), BSBT, Sec(AT1)	Pakistan Studies (BTHU1013), BSBT, Sec(AT1)				
	English I (BTHU1003), BSBT, Sec(BT1)	Pakistan Studies (BTHU1013), BSBT, Sec(BT1)	Introduction to Biotechnology (BT1303), BSBT, Sec(BT1)				
	Physical Chemistry (BT1203), BSBT, Sec(CT1)	Islamic studies (BTHU1023), BSBT, Sec(CT1)	Introduction to Computer Science (BTCS1003), BSBT, Sec(CT1)				
Semester 2	Inorganic Chemistry (BT1213), BSBT, Sec(AT2)	Inorganic Chemistry - Lab (BT1213), BSBT, Sec(AT2)	Mathematics (BTMT1003), BSBT, Sec(AT2)				
	Biochemistry-I (BT1233), BSBT, Sec(BT2)	Mathematics (BTMT1003), BSBT, Sec(BT2)	Ecology, Biodiversity & Evaluation.-I (BT1803), BSBT, Sec(BT2)				
	Organic Chemistry (BT1223), BSBT, Sec(CT2)	Organic Chemistry - Lab (BT1223), BSBT, Sec(CT2)	Ecology, Biodiversity & Evaluation.-I (BT1803), BSBT, Sec(CT2)				

Semester 3	Ecology, Biodiversity & Evolution-II (BT2813), BSBT, Sec(AT3)	Cell Biology (BT2603), BSBT, Sec(AT3)	Biochemistry-II (BT2243), BSBT, Sec(AT3)				
Semester 4			Classical Genetics (GENE4033), BSBT, Sec(AT4)	Probability & Biostatistics (STAT4013), BSBT, Sec(AT4)	Molecular Biology (MOLBIO4013), BSBT, Sec(AT4)		
			Sociology (SSC1033), BSBT, Sec(BT4)	Marketing Management (MANAG2013), BSBT, Sec(BT4)	Molecular Biology (MOLBIO4013), BSBT, Sec(AT4)		
Semester 4			Sociology (SSC1033), BSBT, Sec(CT4)	Classical Genetics (GENE4033), BSBT, Sec(CT4)	Probability & Biostatistics (STAT4013), BSBT, Sec(CT4)		
	Semester 5		Agriculture Biotechnology (BIOTEC5013), BSBT, Sec(AT5)	General Immunology (IMMUN5013), BSBT, Sec(AT5)	Methods in Molecular Biology (MOLBIO5013), BSBT, Sec(AT5)		
Semester 6				Health Biotechnology (BIOTEC6013), BSBT, Sec(AT6)	Environmental Biotechnology (ENVBT1053), BSBT, Sec(AT6)	Microbial Biotechnology (MICRO6013), BSBT, Sec(AT6)	
				Genetic Resources & Conservation (GRC1033), BSBT, Sec(BT6)	Microbial Biotechnology (MICRO6013), BSBT, Sec(BT6)		
				Food Biotechnology (BIOTEC6033), BSBT, Sec(CT6)	Health Biotechnology (BIOTEC6013), BSBT, Sec(CT6)	Environmental Biotechnology (ENVBT1053), BSBT, Sec(CT6)	
Semester 7			Bioinformatics (BIOINF7013), BSBT, Sec(AT7)	Bioinformatics - Lab (BIOINF7013), BSBT, Sec(AT7)	Cell & Tissue Culture (CTISSU7013), BSBT, Sec(AT7)		
Semester 8				Fermentation Biotechnology - Lab (BIOTEC8013), BSBT, Sec(AT8)	Virology - Lab (VIRO8013), BSBT, Sec(AT8)	Fermentation Biotechnology (BIOTEC8013), BSBT, Sec(AT8)	
				Virology (VIRO8013), BSBT, Sec(BT8)	Virology - Lab (VIRO8013), BSBT, Sec(BT8)		
<b>Semester #</b>	<b>08:00-09:20</b>	<b>09:30-10:50</b>	<b>11:00-12:20</b>	<b>12:30-13:50</b>	<b>14:00-15:20</b>	<b>15:30-16:50</b>	<b>17:00-18:20</b>
Semester 1	English I (BTHU1003), BSBT, Sec(AT1)	Physical Chemistry (BT1203), BSBT, Sec(AT1)	Introduction to Biotechnology (BT1303), BSBT, Sec(AT1)				
	Islamic studies (BTHU1023), BSBT, Sec(BT1)	Introduction to Computer Science (BTCS1003), BSBT, Sec(BT1)	Physical Chemistry (BT1203), BSBT, Sec(BT1)				
Semester 2	English-II (BTHU1033), BSBT, Sec(AT2)	Organic Chemistry (BT1223), BSBT, Sec(AT2)	Ecology, Biodiversity & Evaluation.-I (BT1803), BSBT, Sec(AT2)				
	English-II (BTHU1033), BSBT, Sec(BT2)	Organic Chemistry - Lab (BT1223), BSBT, Sec(BT2)	Organic Chemistry (BT1223), BSBT, Sec(BT2)				
	Inorganic Chemistry (BT1213), BSBT, Sec(CT2)	Biochemistry-I (BT1233), BSBT, Sec(CT2)	Biochemistry-I - Lab (BT1233), BSBT, Sec(CT2)				
Semester 3	English-III (Writing & Comp) (BTHU2043), BSBT, Sec(AT3)	Biological Physics (BT2403), BSBT, Sec(AT3)	Biomathematics (BTMT2013), BSBT, Sec(AT3)				
				Sociology (SSC1033), BSBT, Sec(AT4)	Analytical Chemistry & Instrumentation (CHEM4013), BSBT, Sec(AT4)	Marketing Management (MANAG2013), BSBT, Sec(AT4)	

THURSDAY

Semester 4				Classical Genetics (GENE4033), BSBT, Sec(BT4)	Probability & Biostatistics (STAT4013), BSBT, Sec(BT4)	Analytical Chemistry & Instrumentation (CHEM4013), BSBT, Sec(BT4)	
				Analytical Chemistry & Instrumentation (CHEM4013), BSBT, Sec(CT4)	Molecular Biology (MOLBIO4013), BSBT, Sec(CT4)		
Semester 5			Principles of Biochemical Engineering - Lab (BIOENG5013), BSBT, Sec(AT5)	Principles of Biochemical Engineering (BIOENG5013), BSBT, Sec(AT5)	Microbiology (MICRO1013), BSBT, Sec(AT5)		
Semester 6				Genetic Resources & Conservation (GRC1033), BSBT, Sec(AT6)	Food Biotechnology (BIOTEC6033), BSBT, Sec(AT6)	Nano-Biotechnology (BIOTEC6023), BSBT, Sec(AT6)	
				Health Biotechnology (BIOTEC6013), BSBT, Sec(BT6)	Environmental Biotechnology (ENVBT1053), BSBT, Sec(BT6)	Food Biotechnology (BIOTEC6033), BSBT, Sec(BT6)	
				Nano-Biotechnology (BIOTEC6023), BSBT, Sec(CT6)	Nano-Biotechnology - Lab (BIOTEC6023), BSBT, Sec(CT6)		
Semester 7				Genomics & Proteomics (GENOM7013), BSBT, Sec(AT7)	Industrial Biotechnology (INDSBT7013), BSBT, Sec(AT7)	Bioinformatics (BIOINF7013), BSBT, Sec(AT7)	
Semester 8				Virology (VIRO8013), BSBT, Sec(AT8)	Research Methodology & Skill Enhancement (RESMTH8013), BSBT, Sec(AT8)	Biosafety & Bioethics (BIOSAF8012), BSBT, Sec(AT8)	
				Fermentation Biotechnology - Lab (BIOTEC8013), BSBT, Sec(BT8)	Fermentation Biotechnology (BIOTEC8013), BSBT, Sec(BT8)	Research Methodology & Skill Enhancement (RESMTH8013), BSBT, Sec(BT8)	

FRIDAY

Semester #	08:00-09:20	09:30-10:50	11:00-12:20	12:30-13:50	14:00-15:20	15:30-16:50	17:00-18:20
Semester 1	Islamic studies (BTHU1023), BSBT, Sec(AT1)	Introduction to Computer Science (BTCS1003), BSBT, Sec(AT1)	Pakistan Studies (BTHU1013), BSBT, Sec(AT1)	Juma Break			
	English I (BTHU1003), BSBT, Sec(CT1)	Pakistan Studies (BTHU1013), BSBT, Sec(CT1)	Introduction to Biotechnology (BT1303), BSBT, Sec(CT1)	Juma Break			
Semester 2	Inorganic Chemistry (BT1213), BSBT, Sec(AT2)	Biochemistry-I (BT1233), BSBT, Sec(AT2)	Mathematics (BTMT1003), BSBT, Sec(AT2)	Juma Break			
	Inorganic Chemistry (BT1213), BSBT, Sec(BT2)	Biochemistry-I (BT1233), BSBT, Sec(BT2)	Biochemistry-I - Lab (BT1233), BSBT, Sec(BT2)	Juma Break			
	English-II (BTHU1033), BSBT, Sec(CT2)	Mathematics (BTMT1003), BSBT, Sec(CT2)	Ecology, Biodiversity & Evaluation.-I (BT1803), BSBT, Sec(CT2)	Juma Break			
Semester 3		Ecology, Biodiversity & Evolution-II (BT2813), BSBT, Sec(AT3)	Ecology, Biodiversity & Evolution-II - Lab (BT2813), BSBT, Sec(AT3)	Juma Break			
		Classical Genetics (GENE4033), BSBT, Sec(AT4)	Probability & Biostatistics (STAT4013), BSBT, Sec(AT4)	Juma Break			



F	Semester 4		Analytical Chemistry & Instrumentation - Lab (CHEM4013), BSBT, Sec(BT4)	Molecular Biology (MOLBIO4013), BSBT, Sec(AT4)	Juma Break			
			Sociology (SSC1033), BSBT, Sec(CT4)	Marketing Management (MANAG2013), BSBT, Sec(CT4)	Juma Break			
	Semester 5	Agriculture Biotechnology - Lab (BIOTEC5013), BSBT, Sec(AT5)	Agriculture Biotechnology (BIOTEC5013), BSBT, Sec(AT5)		Juma Break			
	Semester 6	Health Biotechnology (BIOTEC6013), BSBT, Sec(AT6)	Environmental Biotechnology (ENVBT1053), BSBT, Sec(AT6)		Juma Break			
		Nano-Biotechnology (BIOTEC6023), BSBT, Sec(BT6)	Nano-Biotechnology - Lab (BIOTEC6023), BSBT, Sec(BT6)		Juma Break			
		Genetic Resources & Conservation (GRC1033), BSBT, Sec(CT6)	Microbial Biotechnology (MICRO6013), BSBT, Sec(CT6)		Juma Break			