

North South University
BS in Microbiology

Requirements for a FOUR YEAR Bachelor of Science degree in Microbiology

Semester-Wise Course Distribution (proposed)

Semester-Wise Course Distribution

1st Year			
Semester 1	Course Code	Course Name	SCH
	ENG102/ ENG103	English composition I	3
	BIO103	Principles of Biology I	4
	POL101/POL104	Government / Political Science	3
		Sub-Total	10
Semester 2		Course Name	SCH
	CHE101	General Chemistry I	4
	MIS105	Introduction to Computers	3
	PHI101	Philosophy/Ethics	3
	ENG105	English Composition II	3
		Sub-Total	13
Semester 3		Course Name	SCH
	HIS101	Bangladesh History and Culture	3
	ENG111	English Speech	3
	MAT112/MAT116	Mathematics (College Algebra/Trigonometry)	3
	SOC101/GEO205/ANT101	Soc./ Geog./Anthropology	3
		Sub-Total	12
		Total SCH in 1st Year	35
2nd Year			
Semester 4		Course Name	SCH
	ENG115	Literature(English, Bengali etc)	3
	CHE201	General Chemistry II	4
	ECO101/ECO104	Economics (Introduction to Micro/Macro)	3
		Sub-Total	10
Semester 5		Course Name	SCH
	PHY107L	General Physics I	4
	MAT120	Survey of Calculus	3
	BIO201	Principles of Biology II	4
		Sub-Total	11
Semester 6		Course Name	SCH
	HIS102	Introduction to World Civilization	3
	STA172	Statistics I	3
	CHE301	Organic Chemistry I	4
		Sub-Total	10
		Total SCH in 2nd Year	31
3rd Year			
Semester 7		Course Name	SCH
	MIC301	Basic Microbiology	4
	CHE202	Organic Chemistry I	4
	MIC302	Molecular Biology	3

		Sub-Total	11
Semester 8		Course Name	SCH
	MIC303	Microbial Chemistry and Physiology	3
	MIC304	Microbial Genetics	3
	MIC422	Senior Seminar	3
		Sub-Total	9
Semester 9		Course Name	SCH
	MIC306	Virology	3
	MIC305	Food Microbiology and Quality Control	3
		Elective I	3
		Sub-Total	9
		Total SCH in 3rd Year	29
4th Year			
Semester 10		Course Name	SCH
	MIC309	Infectious diseases and diagnostic microbiology	4
		Elective II	3
		Free Elective I	3
		Sub-Total	10
Semester 11		Course Name	SCH
	MIC307	Bacterial Pathogenesis	3
		Elective III	3
		Free Elective II	3
		Sub-Total	9
Semester 12		Course Name	SCH
	BBT230	Statistics II (Biostatistics)	3
		Free Elective III	3
		Sub-Total	6
		Total SCH in 4th Year	25
		Total Credit Hours in Four (1st + 2nd + 3rd + 4th) Years	120

List of Elective Courses:

9 Credits

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|----|--------|---|---|
| 1. | MIC401 | Immunology | 3 |
| 2. | MIC402 | Agricultural microbiology & Plant pathology | 3 |
| 3. | MIC403 | Microbial Biotechnology | 3 |
| 4. | MIC404 | Environmental Microbiology & Bioremediation | 3 |
| 5. | MIC405 | Bioinformatics | 3 |
| 6. | MIC406 | Microbial Taxonomy | 3 |

Recommended Free Elective Courses:

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|----|---|--|---|
| 1. | BBT318 Cell Biology | | 3 |
| 2. | BBT413 Plant Biochemistry & Biotechnology | | 3 |
| 3. | BBT313 Human Physiology | | 3 |
| 4. | BBT315 Metabolism | | 3 |
| 5. | BBT418 Pharmaceutical Biotechnology | | 3 |
| 6. | BBT419 Clinical Biochemistry | | 3 |