

DEPARTMENT OF BIOSYSTEMS TECHNOLOGY

The Department of Biosystems Technology will be established under the Faculty of Technology, Sabaragamuwa University of Sri Lanka and offers a four year degree programme of **Bachelor of Biosystems Technology**. This degree programme has been designed to inculcate the students with sound theoretical knowledge and state of the art technology expertise so that they can cater the growing demand for the technological knowledge and skills all over the world.

Sabaragamuwa University of Sri Lanka has planned to intake the first batch of 75 students for the Biosystems Technology degree programme in the year 2018. The students who have followed Advanced Level Technology stream with the Biosystems Technology and Science for Technology subjects are eligible to apply for this degree programme.

The prospective students for this degree program will have to complete minimum of 120 credits by pursuing the following subject combinations.

Year I				
Semester I – A student must earn a minimum of 14 credits				
Course Code	Course Title	No. of Credits	Prerequisites	Compulsory/Optional
BST 11201	Physics for Biosystems Technology	2		Compulsory
BST 11202	Mathematics for Biosystems Technology	2		Compulsory
BST 11203	Principles of Human Behavior & Personality Development	2		
BST 11204	Scientific Communication in Biosystems Technology	0		Compulsory
BST 11205	Introduction to Biosystems Engineering	2		Compulsory
BST 11206	Computer Studies for Biosystems Technology	2		Compulsory
BST 11207	Applied Chemistry	2		Compulsory
BST 11208	Applied Biology	2		Compulsory
	Total	14		
Semester II – A student must earn a minimum of 15 credits				
BST 12301	Fundamental of Statistics	3	BST 11202	Compulsory
BST 12302	Technology Management	2		Compulsory
BST 12303	Introduction to Renewable Energy Systems	2	BST 11205	Compulsory
BST 12204	Biomolecular Interactions	2	BST 11208	Compulsory
BST 12205	Fish Biology	2	BST 11208	Compulsory
BST 12206	Creativity and Innovation in Entrepreneurship	2		Compulsory
BST 12207	Computing for Biosystems & Process Control	2	BST 11206	Compulsory
	Total	15		
Year II				
Semester I – A student must earn a minimum of 16 credits				
BST 21201	Introduction of Computer Aided Designs for Technology	2	BST 11201 BST 12207	Compulsory
BST 21202	Data Acquisition Techniques	2	BST 12207	Compulsory
BST 21203	Introduction to Rotating Equipment	2	BST 11201	Compulsory
BST 21204	Bioenergy Systems and Environmental Impact	2	BST 11205	Compulsory
BST 21205	Crop Production Technology	2	BST 11208	Compulsory
BST 21206	Animal Production Technology	2	BST 11208	Compulsory

BST 21207	Organizational Behavior	2		Compulsory
BST 21208	Introduction to Plant Fiber Materials	2		Compulsory
	Total	16		
Semester II – A student must earn a minimum of 16 credits				
BST 22201	Microprocessor & Microcontroller Applications in Technology	2	BST 11206	Compulsory
BST 22202	Food Production Technology	2	BST 21205/6	Compulsory
BST 22203	Gasification and Pyrolysis Technology	2	BST 21204	Compulsory
BST 22204	Applied Microbial Biotechnology	2	BST 21204	Compulsory
BST 22205	Biopharmacology	2	BST 21205/6	Compulsory
BST 22206	Introduction to Electronic Circuit Systems	2		Compulsory
BST 22207	Gene Technology and Bioinformatics	2	BST 21204	Compulsory
BST 22208	Commercialization of Biotechnology Products	2	BST 21205/6	Compulsory
	Total	16		
Year III				
Semester I – A student must earn a minimum of 18 credits				
BST 31201	Solar & Wind Energy Apparatus	2	BST 21203	Optional
BST 31202	Ecological Agriculture Technology	2	BST 22207	Compulsory
BST 31203	Environmental Conservation Technologies	2		Compulsory
BST 31204	Group Project I	2		Compulsory
BST 31205	Microbial Technologies in Bioengineering	2	BST 22205	Compulsory
BST 31206	Technopreneurship	2		Compulsory
BST 31207	Bioprocessing for Biorefining	2		Optional
BST 31208	Environmental Impact Assessment	2		Optional
BST 31209	Analysis and Design of Biomachinery	2	BST 21203	Optional
BST 31210	Meat Biotechnology	2	BST 21206	Optional
BST 31211	Diary Biotechnology	2	BST 21206	Optional
BST 31212	Introduction to Fluid Mechanics	2	BST 11201	Optional
	Total	24		
Semester II – A student must earn a minimum of 15 credits				
BST 32201	Bioenergy Generation Systems and Technologies	2	BST 21203	Compulsory
BST 32202	Thermal Systems	2	BST 21201/2 BST 31201/2	Compulsory
BST 32203	Group Project II on Bioengineering Designs	2		Compulsory
BST 32204	Biopharmaceutical Production Technology	2	BST 22205	Compulsory
BST 32205	Technology of Aquatic Resource Management	2	BST 21205/6	Optional
BST 32206	Rotating Equipment Design & Production	2	BST 21203	Optional
BST 32207	Commercial Production of Eco Friendly Bio Pesticides Level I	2	BST 31202	Compulsory
BST 32208	Conservation of Resistant Varieties	2		Optional
BST 32209	Green Building Design	2		Optional
BST 32210	Ethics in Biotechnology Intellectual	2		Optional
	Total	20		
Year IV				
Semester I – A student must earn a minimum of 18 credits				
BST 41201	Practical Communication & Professional Skills Development	2		Compulsory
BST 41202	Bioenergy Economics	2		Optional
BST 41203	Project Analysis & Management	2		Compulsory
BST 41204	Operations Research for Technology	2		Compulsory
BST 41205	Research Methods and Project Proposal	2		Compulsory

BST 41206	Production of Secondary Metabolites	2		Optional
BST 41207	Industrial and Environment Biotechnology	2		Optional
BST 41208	Bio-waste Management	2		Optional
BST 41209	Commercial Production of Eco Friendly Bio Pesticide Level II	2	BST 32207	Compulsory
BST 41210	Unconventional Theories	2		Optional
BST 41211	Bio reactors	2		Optional
BST 41212	Design of Integrated Alternative Energy Generation Systems	2	BST 31201 BST 32202/6	Optional
BST 41213	Commercial Production of Plant Fibers	2		Compulsory
	Total	26		
Semester II – A student must earn a minimum of 8 credits				
BST 42801	Research Project	8		Compulsory
	Total	8		
	Total for the degree (Minimum)	120		