

CURRICULAR FRAMEWORK OF THE BACHELOR'S DEGREE IN BIOLOGICAL SCIENCES - FCBA/UFGD

CURRICULAR FRAMEWORK, CREDIT HOURS AND LOCATION

DISCIPLINES	TCH	PCH	CH Total	LOCATION
COMMON CORE OF THE UNIVERSITY				
Common Core of the University	72	-	72	UFGD
Common Core of the University	72	-	72	UFGD
COMMON CORE DISCIPLINES OF THE FIELD				
Biostatistics	72	-	72	FCBA
Fundamentals of Chemistry	54	18	72	FACET
Scientific Method	36	36	72	FCBA
Microbiology	36	36	72	FCBA
BASIC CORE DISCIPLINES				
Human Anatomy and Physiology	54	36	90	FCBA
Plant Anatomy	36	18	54	FCBA
Evaluation of Environmental Impact and Quality	36	36	72	FCBA
Biophysics	36	18	54	FCBA
Basic Cell Biology	54	18	72	FCBA
Conservation Biology	54	-	54	FCBA
Molecular Biology	54	-	54	FCBA
Applied Biochemistry	54	18	72	FCBA
Ecology	54	18	72	FCBA
Environmental Education: Fundamentals and Practices	72	-	72	FCBA
Embryology	36	18	54	FCBA
Applied Entomology	36	36	72	FCBA
Evolution	54	-	54	FCBA
Physics	54	-	54	FACET
Plant Physiology	54	18	72	FCBA
Genetics	72	18	90	FCBA

Geology	36	18	54	FCBA
Basic Histology	36	18	54	FCBA
Histology of Organs and Systems	36	36	72	FCBA
Immunology	36	18	54	FCS
Introduction to Calculus	72	-	72	FACET
Laws and Regulations in Biological and Environmental Sciences	54	-	54	FADIR
Comparative Cell Morphophysiology	54	18	72	FCBA
Plant External Morphology	36	18	54	FCBA
Paleontology	36	18	54	FCBA
Parasitology	54	18	72	FCBA
Organic Chemistry I	36	18	54	FACET
Plant Systematics I	54	18	72	FCBA
Plant Systematics II	18	54	72	FCBA
Special Topics about the Work of Biologists in Private, Public and the Third Sectors	36	-	36	FCBA
Invertebrate Zoology I	36	36	72	FCBA
Invertebrate Zoology II	36	36	72	FCBA
Vertebrate Zoology I	36	18	54	FCBA
Vertebrate Zoology II	36	18	54	FCBA
ELECTIVE DISCIPLINES				
Comparative Animal Anatomy and Physiology	36	18	54	FCBA
Basic Apiculture	36	18	54	FCBA
Arthropodology	36	18	54	FCBA
Biological Basis of Behavior	36	18	54	FCBA
Biogeography	36	18	54	FCBA
Biology of Spiders	36	18	54	FCBA
Biology of Invertebrates	36	18	54	FCBA
Biology of Vertebrates	36	18	54	FCBA
Biology and Conservation of Meliponines	36	18	54	FCBA
Biology and Ecology of Social Bees	36	18	54	FCBA
Molecular Biology Applied to Basic Health Sciences	36	18	54	FCBA
Biomorphology of Insects	36	18	54	FCBA
Biotechnology and Treatment of Pollutants	54	-	54	FCBA
Microbial Biotechnology Applied to Industry and the	36	18	54	FCBA

Environment				
Field Botany	18	36	54	FCBA
Didactic Entomological Morphofunctional Collections	36	18	54	FCBA
Animal Behavior	36	18	54	FCBA
Chemical Communication in Insects	36	18	54	FCBA
Insect Biological Control	36	18	54	FCBA
Plant Ecophysiology	36	18	54	FCBA
Landscape Ecology	18	36	54	FCBA
Pollination Ecology	36	18	54	FCBA
Field Ecology	18	36	54	FCBA
Ecosystem Ecology	36	18	54	FCBA
Population and Community Ecology	36	18	54	FCBA
Ecology and Citizenship	36	-	36	FCBA
Numerical Ecology	54	18	72	FCBA
Special Education	72	-	72	FAED
Genetic Engineering of Microorganisms	36	18	54	FCBA
Medical and Veterinary Entomology	36	18	54	FCBA
Applied Statistics	36	18	54	FACET
Plant Secretory Structures	36	18	54	FCBA
Ethnobotany	36	18	54	FCBA
Philosophy of Science	54	-	54	FCBA
Insect Physiology	36	18	54	FCBA
Applied Phytotaxonomy	36	18	54	FCBA
Population Genetics	36	18	54	FCBA
Molecular Genetics	36	18	54	FCBA
Environmental Geology	36	18	54	FCBA
Quaternary Geology	54	-	54	FCBA
Environmental Management	54	-	54	FCBA
Hydrogeology	54	-	54	FCBA
Hygiene and Health	36	18	54	FCBA
History and Epistemology of Natural Sciences	54	-	54	FCBA
Freshwater Ichthyology	36	18	54	FCBA
Social Insects	36	18	54	FCBA
Insect-Plant Interaction	36	18	54	FCBA

Introduction to Biocomputing	36	18	54	FCBA
Introduction to Pharmacology	54	-	54	FCBA
Introduction to Chromatographic Methods	36	18	54	FCBA
Introduction to Geographic Information System	36	18	54	FCBA
LIBRAS - Brazilian Sign Language	54	18	72	FACED
Environmental Microbiology	36	18	54	FCBA
Microbiology Applied to Health	36	18	54	FCBA
Infecto-parasitic Microorganisms of Biotechnological Interest	36	18	54	FCBA
Morphophysiology of Seeds	36	18	54	FCBA
Field Ornithology	36	18	54	FCBA
Research in Science Education	54	-	54	FCBA
Medicinal and Toxic Plants	36	18	54	FCBA
Public Policies for Education	72	-	72	FAED
Environmental Pollution	36	18	54	FCBA
Developmental Psychology and Psychology of Learning	72	-	72	FAED
Water Pollution and Organic Waste Treatment	36	18	54	FCBA
Practice of Plant Physiology	18	36	54	FCBA
Practice of Genetics	18	36	54	FCBA
Principles of Systematics	36	18	54	FCBA
Psychoneuroimmunology	36	18	54	FCBA
Environmental Chemistry	36	18	54	FCBA
Seminars on Botany	54	-	54	FCBA
Seminars on Basic Health Sciences	54	-	54	FCBA
Taxonomy and Insect Systematics	36	18	54	FCBA
Laboratory Cytohistological Techniques	18	36	54	FCBA
Insect Collecting and Preserving Techniques for Collections	36	18	54	FCBA
Vertebrate Collecting and Preserving Techniques for Collections	36	18	54	FCBA
Topics in Plant Taxonomy	36	18	54	FCBA
Special Topics in Geology	36	18	54	FCBA
SPECIFIC ACADEMIC ACTIVITIES				
Complementary Activities in Biological Sciences	-	-	240	FCBA
SUPERVISED INTERNSHIP – BACHELOR’S DEGREE				
Supervised Internship in Biological Sciences	-	180	180	FCBA

FINAL PAPER – BACHELOR’S DEGREE

Final Paper in Biological Sciences I	-	72	72	FCBA
Final Paper in Biological Sciences II	-	72	72	FCBA
ELECTIVE DISCIPLINES				
Evaluation of Environmental Impact and Environmental Licensing	36	36	72	FCBA
Vector Biology	54	18	72	FCBA
Biosafety and Bioethics	36	-	36	FCBA
Environmental Biotechnology	36	36	72	FCBA
Biotechnology in Pest Control	36	18	54	FCBA
Plant Biotechnology	36	36	72	FCBA
Venomous Animal Control	54	18	72	FCBA
Environmental Law	54	-	54	FADIR
Education on Health	54	-	72	FCBA
Genetic Engineering I	36	36	72	FCBA
Genetic Engineering II	36	18	54	FCBA
Enzymology and Microbial Process Technology	36	36	72	FCBA
Epidemiology	54	18	72	FCS
Fundamentals of Instrumental Analytical Chemistry	36	36	72	FACET
Geotechnology Applied to Environmental Management	36	36	72	FCBA
Introduction to Environmental Management	18	18	36	FCBA
Genetic Improvement	36	36	72	FCBA
Environmental Microbiology	36	18	54	FCBA
Industrial Microbiology	36	36	72	FCBA
Environmental Monitoring	54	-	54	FCBA
Public Policies and the Environment	36	-	36	FCH
Environmental Chemistry	36	18	54	<u>FCBA</u>
Applied Analytical Chemistry	36	36	72	FACET
Work Health and Safety	36	18	54	FCS
Environmental Management System and Environmental Certification	54	18	72	FACE
Environmental Data Treatment and Spatial Analysis	36	36	72	FCBA
Effluent and Waste Treatment and Control	36	18	54	FACET
Effluent and Waste Treatment and Control	36	18	54	FACET

Zoonosis	54	18	72	FCBA
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Legend: TCH – Theoretical Credit Hours. PCH – Practical Credit Hours

SUMMARY OF THE CURRICULAR FRAMEWORK AND DESCRIPTION OF THE NECESSARY CREDIT HOURS FOR COURSE COMPLETION

CURRICULAR PARTS	CH
COMMON CORE OF THE UNIVERSITY	144
COMMON CORE DISCIPLINES OF THE FIELD	288
SPECIFIC DISCIPLINES OF THE FIELD (A+B)	
A – Basic Core Disciplines	2,160
B – Elective Disciplines	414
SPECIFIC ACADEMIC ACTIVITIES (C+D+E)	
C – Complementary Activities in Biological Sciences	240
D – Supervised Internship in Biological Sciences	180
E – Final Paper in Biological Sciences I e II	144
ELECTIVE DISCIPLINES	324
TOTAL CREDIT HOURS OF THE COURSE in class hours (50 min.)	3,894
TOTAL CREDIT HOURS OF THE COURSE in clock hours	3,245