Brandenburg University of Technology Cottbus - Senftenberg

Biotechnology

International Master's Programme (M. Sc.) – Regular Duration: 3 Semesters

	Cell Biology	Microbiology	Bioanalytics	Laboratory Diagnostics
1. Semester Summer	Cells and Tissues – Culture and Evaluation 12771 *8 CP*	Methods in Synthetic Microbiology 12777 *8 CP*	Methods in Nanobiotechnology 12792 *8 CP*	Methods in Laboratory Diagnostics 12797 *8 CP*
	Bioengineering of Animal/Human Cells 12772 *8 CP*	Eukaryotic Micro-organisms/Microalgae 12776 *8 CP*	Purification and Characterisation of Proteins 12793 *8 CP*	Methods in Bioanalytics 12798 *8 CP*
	Molecular Dynamics of the Cell 12175 *5 CP*	Compulsory Elective Module *5 CP*	Proteostasis 11858 *5 CP*	Introduction to Laboratory Diagnostics 12768 *5 CP*
	Tissue Engineering 11825 *5 CP*	Compulsory Elective Module *5 CP*	Nanobiotechnology 12765 *5 CP*	Compulsory Elective Module *5 CP*
	Compulsory Elective Module *5 CP*	Compulsory Elective Module *5 CP*	Compulsory Elective Module *5 CP*	Compulsory Elective Module *5 CP*
2. Semester Winter	Genetic Engineering of Eukaryotic Cells 12773 *8 CP*	Metabolic Analysis and Engineering 12791 *8 CP*	Methods in Enzyme Technology 12794 *8 CP*	Molecular Biology: Principles, Methods and Applications 12799 *8 CP*
	Signal Transduction 12762 *5 CP*	Microbial Metabolism 12800 *5 CP*	Compulsory Elective Module *5 CP*	Point of Care Diagnostic 12767 *5 CP*
	Compulsory Elective Module *5 CP*	Enzyme Technology 12763 *5 CP*	Compulsory Elective Module *5 CP*	Immunology 11795 *5 CP*
	Compulsory Elective Module *5 CP*	Synthetic Microbiology 12764 *5 CP*	Compulsory Elective Module *5 CP*	Compulsory Elective Module *5 CP*
	General Studies *6 CP*	General Studies *6 CP*	General Studies *6 CP*	General Studies *6 CP*
3. Semester Summer	Master Thesis 12770 *30 CP*	Master Thesis 12770 *30 CP*	Master Thesis 12770 *30 CP*	Master Thesis 12770 *30 CP*
Σ	*90 ECTS Credit Points*	*90 ECTS Credit Points*	*90 ECTS Credit Points*	*90 ECTS Credit Points*

Five-digit Codes: Module Numbers

Lab Courses

Mandatory Prerequisites

Brandenburg University of Technology Cottbus - Senftenberg

Biotechnology

International Master's Programme (M. Sc.) – Regular Duration: 4 Semesters

	Cell Biology	Microbiology	Bioanalytics	Laboratory Diagnostics
1. Semester Winter	Introduction to Scientific Work 12740 *6 CP*			
	Research Internship 12739 *24 CP*			
2. Semester Summer	Cells and Tissues – Culture and Evaluation 12771 *8 CP*	Methods in Synthetic Microbiology 12777 *8 CP*	Methods in Nanobiotechnology 12792 *8 CP*	Methods in Laboratory Diagnostics 12797 *8 CP*
	Bioengineering of Animal/Human Cells 12772 *8 CP*	Eukaryotic Microorganisms/Microalgae 12776 *8 CP*	Purification and Characterisation of Proteins 12793 *8 CP*	Methods in Bioanalytics 12798 *8 CP*
	Molecular Dynamics of the Cell 12175 *5 CP*	Compulsory Elective Module *5 CP*	Proteostasis 11858 *5 CP*	Introduction to Laboratory Diagnostics 12768 *5 CP*
	Tissue Engineering 11825 *5 CP*	Compulsory Elective Module *5 CP*	Nanobiotechnology 12765 *5 CP*	Compulsory Elective Module *5 CP*
	Compulsory Elective Module *5 CP*	Compulsory Elective Module *5 CP*	Compulsory Elective Module *5 CP*	Compulsory Elective Module *5 CP*
3. Semester Winter	Genetic Engineering of Eukaryotic Cells 12773 *8 CP*	Metabolic Analysis and Engineering 12791 *8 CP*	Methods in Enzyme Technology 12794 *8 CP*	Molecular Biology: Principles, Methods and Applications 12799 *8 CP*
	Signal Transduction 12762 *5 CP*	Microbial Metabolism 12800 *5 CP*	Compulsory Elective Module *5 CP*	Point of Care Diagnostic 12767 *5 CP*
	Compulsory Elective Module *5 CP*	Enzyme Technology 12763 *5 CP*	Compulsory Elective Module *5 CP*	Immunology 11795 *5 CP*
	Compulsory Elective Module *5 CP*	Synthetic Microbiology 12764 *5 CP*	Compulsory Elective Module *5 CP*	Compulsory Elective Module *5 CP*
	General Studies *6 CP*	General Studies *6 CP*	General Studies *6 CP*	General Studies *6 CP*
4. Semester Summer	Master Thesis 12770 *30 CP*	Master Thesis 12770 *30 CP*	Master Thesis 12770 *30 CP*	Master Thesis 12770 *30 CP*
Σ	*120 ECTS Credit Points*	*120 ECTS Credit Points*	*120 ECTS Credit Points*	*120 ECTS Credit Points*

Five-digit Codes: Module Numbers Lab Courses Mandatory Prerequisites