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| ***Code*** | ***Title*** | ***Credits*** | ***Option*** |
| First Semester |
| AB 5107 | Microbial Genetics | 2 | Compulsory |
| AB 5116 | Plant Biochemistry | 2 | Compulsory |
| AB 5119  | Molecular Biology | 1 | Compulsory |
| AB 5122 | Gene Manipulation | 2 | Compulsory |
| AB 5196  | Practicum in Biotechnology I  | 1 | Compulsory  |
| AB 5101 | Cell Biology | 2 | Optional |
| AB 5105 | Cellular Genetics | 2 | Optional |
| AB 5106 | Exploring the Genomes: Principles & Techniques | 2 | Optional |
| AB 5114 | Biosensing | 2 | Optional |
| AB 5118 | Polygenic Inheritance | 2 | Optional |
| AB 5125 | Protein Engineering | 1 | Optional |
| AB 5126 | Enzyme Production Technology | 2 | Optional |
| AB 5155 | Molecular & Functional Glycobiology | 2 | Optional |
| CS 5123 | Plant Tissue Culture - Micropropagation | 2 | Optional |
| Second Semester |
| AB 5222  | Gene Expression & Developmental Genetics | 2 | Compulsory |
| AB 5228  | Molecular Breeding & DNA Fingerprinting  | 2 | Compulsory |
| AB 5229 | Genetically Modified Organisms, Food, Feed and Processed Products and Biosafety  | 1 | Compulsory |
| AB 5236 | Production of Transgenics | 1 | Compulsory |
| AB 5252  | Bioinformatics  | 2 | Compulsory |
| AB 5296 | Practicum in Biotechnology II  | 1 | Compulsory  |
| AB 5298\* | Directed Study | 2 | Compulsory  |
| AB 5299 | Seminar | 1 | Compulsory  |
| AB 5202 | Advanced Genetic Analysis: Genes, Genomes and Networks | 2 | Optional |
| AB 5204  | In vitro Techniques for Biotechnology  | 2 | Optional |
| AB 5220 | Marine Biotechnology | 1 | Optional |
| AB 5223 | Cereal Biotechnology | 1 | Optional |
| AB 5224 | Secondary Metabolite Production | 1 | Optional |
| AB 5227 | Cellular Immunology | 1 | Optional |
| AB 5230 | Plant Variety Protection, Intellectual Property Rights & Policy Issues | 1 | Optional |
| AB 5233 | Nanotechnology in Agriculture | 1 | Optional |
| AB 5235 | Scientific Communication in Biology | 1 | Optional |
| CS 5225 | Advanced Plant Tissue Culture | 2 | Optional |