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| ***Code*** | ***Title*** | ***Credits*** | ***Option*** |
| First Semester |
| AB 5108 | Principles of Plant Breeding | 2 | Compulsory |
| AB 5110 | Crop Genetic Resources | 1 | Compulsory |
| AB 5111 | Exploration and Characterization of PGRxEx |  2e22222 | Compulsory |
| AB 5113 | Photosynthesis and Plant Productivity | 2 | Compulsory |
| AB 5120 | Theory and Techniques of Plant Gene Manipulation  | 2 | Compulsory |
| AB 5195 \* | Practicum 1 - Biology | 1 | Compulsory |
| AB 5102 | Water Relational and Nutrition | 2 | Optional |
| AB 5103 | Plant Systematics | 2 | Optional |
| AB 5105 | Cellular Genetics | 2 | Optional |
| AB 5109 | Plant Reproductive Biology | 1 | Optional |
| AB 5115 | Assessment of Genetic Diversity | 1 | Optional |
| AB 5116 | Plant Biochemistry  | 2 | Optional |
| AB 5154 | Valuing Plant Genetic Resources | 1 | Optional |
| AB 5196\*\* | Practicum in Biotechnology I | 1 | Optional |
| PP 5151 | Plant Molecular Biology | 2 | Optional |
| CS 5114 | Biodiversity | 2 | Optional |
| ST 5154 | Statistical Genetics | 2 | Optional |
| Second Semester |
| AB 5203 | Stress Physiology  | 2 | Compulsory |
| AB 5211 | Methods in Plant Genetic Resources Conservation | 2 | Compulsory |
| AB 5213 | Plant Growth and Development | 1 | Compulsory |
| AB 5214 | Biotechnology in Plant Improvement | 1 | Compulsory |
| AB 5235 | Scientific Communication in Biology | 1 | Compulsory |
| AB 5295\* | Practicum 2 - Crop Improvement | 1 | Compulsory |
| AB 5297 | Project | 5 | Compulsory |
| AB 5209 | Nutrional Quality Improvment of Food Crops | 1 | Optional  |
| AB 5210 | Statistical genomics in biotechnology | 2 | Optional |
| AB 5215 | Population Genetics | 2 | Optional |
| AB 5217 | Breeding Strategies of Economic Crops | 2 | Optional |
| AB 5218 | Character Inheritance Mechanisms | 1 | Optional |
| AB 5230 | Plant Variety Protection, Intellectual Property Rights & Policy Issues | 1 | Optional |
| AB 5232 | Variety Testing for Adaptability | 1 | Optional |
| AB 5296\*\* | Practicum in BIotechnology II | 1 | Optional |
| AB 5299 | Seminar | 1 | Optional |
| CS 5225 | Advanced Plant Tissue Culture | 2 | Optional |
| ST 5202 | Design and Analysis of Experiments | 2 | Optional |