**BSc Botany & Plant Biotechnology Credit Structure**

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| **SEMESTER 1** |  |
| **Paper** | **Credits** |
| Introduction to Life Science | 2 |
| Cell Biology | 3 |
| Introduction to Life Science Laboratory | 3 |
| Conceptual Inorganic Chemistry | 3 |
| Chemistry Laboratory-I | 2 |
| CFP- I Any of the Six Courses Communication I: Think Through Reading and  Writing (AEC) | 2 |
| CFP- II Any of the Six Courses Humanities and Art Appreciation (VAC/IKS) | 3 |
| University Elective | 2 |
| **Total Credit** | **20** |
| **SEMESTER 2** |  |
| **Paper** | **Credits** |
| Plant diversity | 2 |
| Biochemistry | 3 |
| Plant diversity Laboratory | 2 |
| Biochemistry Laboratory | 1 |
| Organic Chemistry | 3 |
| Chemistry- II | 1 |
| CFP- III Any of the Six Courses Environmental and Climate Change  (VAC/IKS) | 3 |
| CFP- IV Data Any of the Six Courses Science  (SEC) | 3 |
| CFP- V Any of the Six Courses Critical Thinking and Research  (AEC)) | 2 |
| University  Electives | 3 |
| **Total Credits** | **20** |
| **Semester 3** |  |
| **Paper** | **Credits** |
| Plant anatomy and physiology | 3 |
| Molecular Biology | 2 |
| Plant anatomy and physiology laboratory | 2 |
| Molecular Biology Laboratory | 2 |
| CFP IV Writing and Communication | 2 |
| Conceptual Physical Chemistry | 3 |
| CFP- V Data Any of the Six Courses Sciences(SEC) | 3 |
| University Elective | 2 |
| University Elective | 2 |
| Discussion Seminar I | 1 |
| Institutional Internship | 2 |
| **Total Credit** | **24** |
| **Semester 4** |  |
| **Paper** | **Credit** |
| Genetics | 3 |
| Bioinstrumentation, Biostatistics & Biophysics | 3 |
| Genetics, Bioinstrumentation, Biostatistics & Biophysics Laboratory | 2 |
| Spectroscopy and separation Techniques | 3 |
| Chemistry Laboratory IV | 2 |
| University Elective | 2 |
| University Elective | 3 |
| Discussion Seminar II (Techniques in Research) | **2** |
| Research Project I | 3 |
| **Total Credit** | **22** |
| **Semester 5** |  |
| **Paper** | **Credit** |
| Bioinformatics | 2 |
| Plant biotechnology | 3 |
| Plant taxonomy & applied ecology | 3 |
| Plant biotechnology Laboratory | 3 |
| Plant taxonomy & applied ecology Laboratory | 1 |
| Research Project II | 3 |
| Entrepreneurial Research | 3 |
| Scientific Enquiry and Research Methodology | 1 |
| University Elective | 3 |
| Industrial Internship | 5 |
| **Total Credit** | **27** |
| **Semester 6** |  |
| **Paper** | **Credit** |
| Plant tissue culture & micropropagation | 3 |
| Plant pathology & disease management | 3 |
| Research Project III | 6 |
| Plant tissue culture & micropropagation laboratory | 3 |
| Plant pathology & disease management laboratory | 3 |
| University Elective | 2 |
| University Elective | 2 |
| **Total Credit** | **22** |
| **Semester 7** |  |
| **Paper** | **Credit** |
| Plant embryology | 3 |
| Economic botany | 2 |
| Genomics & Proteomics | 2 |
| Plant embryology & Economic botany Laboratory | 2 |
| Genomics & proteomics laboratory | 1 |
| Review of literature | 2 |
| Research Project IV | 6 |
| University Elective | 3 |
| KHOJ WINTER SCHOOL (Allied Courses) | 3 |
| University Elective | 2 |
| **Total Credit** | **26** |
| **Semester 8** |  |
| **Paper** | **Credit** |
| Research Project/ On-the- Job Training | **15** |