

**DEPARTMENT OF BIOCHEMISTRY  
JINNAH UNIVERSITY FOR WOMEN**

**PH.D PROGRAM IN BIOCHEMISTRY**

**SEMESTER I**

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| 1. BIO- 801 Recent Trends in Immunology                | Credit hour: 3+0 |
| 2. BIO- 802 Advanced Genomics and Proteomics           | Credit hour: 3+0 |
| 3. BIO- 803 Application of Nanomaterials in Bioscience | Credit hour: 3+0 |
| 4. BIO- 804 Drug Designing and Metabolism              | Credit hour: 3+0 |

**SEMESTER II**

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| 1. BIO- 805 Advanced Bioinformatics                        | Credit hour: 3+0 |
| 2. BIO- 806 Advanced Biostatistics                         | Credit hour: 3+0 |
| 3. BIO- 807 Stem Cells and Therapeutics                    | Credit hour: 3+0 |
| 4. BIO- 808 Research Proposal writing for funding agencies | Credit hour: 3+0 |

**Elective Courses:**

1. Human Genetics
2. Molecular Virology
3. Forensic Serology and DNA Analysis
4. DNA Techniques and Clinical Application