

School of Basic Sciences

PhD Course Structures

PhD degree core courses

| S. No. | Course name | L | T | P | C | Core/Elective |
|--------|--------------------------------------|---|---|---|---|---------------|
| 1 | Research Methodology | 2 | 0 | 0 | 2 | Core |
| 2 | Statistics and Computer applications | 2 | 0 | 0 | 2 | Core |
| 3 | Ethics in Research and Publications | 2 | 0 | 0 | 2 | Core |

PhD degree domain specific courses (Offered by School)

| S. No. | Course name | L | T | P | S | C | Core/Elective |
|--------|--------------------------|---|---|---|---|---|---------------|
| 1 | Domain Specific course 1 | 3 | 0 | 0 | 1 | 4 | Elective 1 |
| 2 | Domain Specific course 2 | 3 | 0 | 0 | 1 | 4 | Elective 2 |

Total credits: 14

Required credits as per UGC PhD regulations 2022: 12 Credits

List of Domain Specific courses

List of elective courses for PhD in Mathematics

| S. No. | Course name | L | T | P | S | C |
|--------|--|---|---|---|---|---|
| 1 | Functional analysis | 3 | 0 | 0 | 1 | 4 |
| 2 | Wavelet analysis | 3 | 0 | 0 | 1 | 4 |
| 3 | Fuzzy mathematics | 3 | 0 | 0 | 1 | 4 |
| 4 | Theory of elasticity | 3 | 0 | 0 | 1 | 4 |
| 5 | Fluid Mechanics | 3 | 0 | 0 | 1 | 4 |
| 6 | Advances in machine learning | 3 | 0 | 0 | 1 | 4 |
| 7 | Python programming | 3 | 0 | 0 | 1 | 4 |
| 8 | Advances in optimization techniques | 3 | 0 | 0 | 1 | 4 |
| 9 | Measure theory | 3 | 0 | 0 | 1 | 4 |
| 10 | Finite element method | 3 | 0 | 0 | 1 | 4 |
| 11 | Mathematical modeling | 3 | 0 | 0 | 1 | 4 |
| 12 | Dynamical systems and stability | 3 | 0 | 0 | 1 | 4 |
| 13 | Theory of Approximation and its Applications | 3 | 0 | 0 | 1 | 4 |
| 14 | Nonlinear Analysis | 3 | 0 | 0 | 1 | 4 |