

Scheme and Syllabus

Ph.D in Mathematics

IEC School of Basic & Applied Sciences



Atal Shiksha Nagar (Kallujhanda), P.O.

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Pinjore-Nalagarh highway, District- Solan,

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**Course Scheme Ph.D. (MATHEMATICS)
Ph.D. (Common Syllabus First Semester)**

| Semester – I | | | | |
|---------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------|----------------|-----------|
| Compulsory Paper | | | | |
| Course Code | Paper | L | Credits | |
| RM-01 | Research Methodology | 4 | 4 | |
| RPE | Research and Publication Ethics | 2 | 2 | |
| Optional Papers: A student will option two papers either from Stream– A or from Stream– B. | | | | |
| Optional | Course Code | Paper | L | Credits |
| | MATH-702 | Mathematical Theory of Elasticity and Plasticity | 5 | 5 |
| | MATH-703 | Mathematical Theory of Creep | 5 | 5 |
| | MATH-704 | Hydrodynamic and Hydromagnetic Stability-I | 5 | 5 |
| | MATH-705 | Hydrodynamic and Hydromagnetic Stability-II | 5 | 5 |
| | MATH-706 | Advanced Optimization | 5 | 5 |
| | MATH-707 | Fluid Mechanics | 5 | 5 |
| | MATH-708 | Algebra | 5 | 5 |
| | MATH-709 | Elements of Computational Techniques | 5 | 5 |
| | MATH-710 | Topics in Topology | 5 | 5 |
| | MATH-711 | Advanced Optimization | 5 | 5 |
| | MATH-712 | Mechanics of Composite Materials | 5 | 5 |
| | MATH-713 | Application Oriented Numerical Methods | 5 | 5 |
| Total | | | | 15 |

| Course Code | Paper | L | Credit |
|--------------------|-------------------------|----------|---------------|
| MATH-791 | Dissertation (External) | - | 18 |
| | Seminar (Internal) | - | |
| MATH-792 | Viva-Voce (External) | - | 02 |
| Total | | | 20 |