



Since 1983

Dr. Vishwanath Karad

**MIT WORLD PEACE
UNIVERSITY** | PUNE

TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS



M.Sc. (Applied Statistics)

Programme Structure

 mitwpu.edu.in

Division	Faculty of Science & Health Science
School Name	School of Science & Environmental Studies
Department Name	Department of Mathematics and Statistics
Programme Name	M.Sc. (Applied Statistics)

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| Course Type | Description |
|----------------------|--|
| Programme Core | Courses dealing with foundations, depth and breadth of the major in which a student is admitted at MIT-WPU |
| Programme Electives | Open electives under the Programme allow students to specialise in a particular area connected to their major. |
| University Core | Courses that reflect the core MITWPU values and the mission of Life Transformation of students. |
| University Electives | Multidisciplinary courses across the faculties at MIT-WPU and outside the Programme core. |

**M.Sc. (Applied Statistics) (First Year) (Batch 2026-28)
Semester – I**

| Sr. No | Name of the Course | Type | Credits |
|--------|--|------|-----------|
| 1 | Linear Algebra | PF | 3 |
| 2 | Distribution Theory | PF | 3 |
| 3 | R Programming +SQL | PM | 2 |
| 4 | Research Methodology | PM | 4 |
| 5 | Statistical Inference | PM | 3 |
| 7 | Program Elective -01 | PE | 4 |
| 8 | Scientific Studies of Mind, Matter, Spirit and Consciousness | UC | 2 |
| 9 | Yoga | UC | 1 |
| | Total: | | 25 |

| | Track 1 | Track 2 | Track 3 |
|--------------------|-----------------------------------|-------------------------------------|-----------------------|
| Elective Basket | Data Science | Biostatistics | Financial Statistics |
| Name of the course | Data Base Management System(DBMS) | Statistical Methods in Epidemiology | Financial Mathematics |

**M.Sc. (Applied Statistics) (First Year) (Batch 2026-28)
Semester – II**

| Sr. No | Name of the Course | Type | Credits |
|--------|--|------|-----------|
| 1 | Applied Multivariate Analysis | PM | 4 |
| 2 | Multivariate and Regression Lab | PM | 1 |
| 3 | ML Lab | PM | 1 |
| 4 | Regression Analysis | PM | 3 |
| 5 | Statistical Computing | PM | 3 |
| 6 | Applied Stochastic Process | PM | 3 |
| 7 | Program Elective - 02 | PE | 4 |
| 8 | Peace- II | UC | 2 |
| 9 | Democracy, Leadership and Governance Program(DLGP) | UC | 1 |
| | Total | | 22 |

| | Track 1 | Track 2 | Track 3 |
|--------------------|--------------|---------------------------------|----------------------|
| Elective Basket | Data Science | Biostatistics | Financial Statistics |
| Name of the course | ML | Statistical Methods in Genetics | Econometrics |

**M.Sc. (Applied Statistics) (First Year) (Batch 2026-28)
Semester – III**

| Sr. No | Name of the Course | Type | Credits |
|--------|---|------|-----------|
| 1 | Longitudinal Data Analysis | PM | 4 |
| 2 | Optimization Techniques | PM | 4 |
| 3 | Lab on Time Series analysis and Project | PM | 2 |
| 4 | Time Series Analysis | PM | 4 |
| 5 | Program Elective - 03 | PE | 4 |
| 6 | On job Training(OJT)/Internship/Project | PR | 4 |
| | Total: | | 22 |

| | Track 1 | Track 2 | Track 3 |
|--------------------|---------------|-----------------|----------------------|
| Elective Basket | Data Science | Biostatistics | Financial Statistics |
| Name of the course | Deep Learning | Clinical Trials | Actuarial Sciences |

M.Sc. (Applied Statistics) (First Year) (Batch 2026-28)
Semester – IV

| Sr. No | Name of the Course | Type | Credits |
|--------|---------------------------------|------|-----------|
| 1 | Program Elective-04 | PM | 4 |
| 2 | Sampling Theory | PM | 2 |
| 3 | Project / Industrial Internship | PR | 16 |
| | Total: | | 22 |

| | Track 1 | Track 2 | Track 3 |
|--------------------|----------------------|---------------|---------------------------------------|
| Elective Basket | Data Science | Biostatistics | Financial Statistics |
| Name of the course | Explanatory Analysis | Demography | Statistical Methods for Risk Modeling |

*Modifications to the programmes and courses are contingent upon adherence to university guidelines and procedures. Any proposed changes must undergo a thorough review process, including consultation with relevant academic departments, approval from the appropriate administrative bodies, and compliance with accreditation standards.

Additionally, consideration will be given to feedback from students, faculty, and other stakeholders to ensure that modifications align with the overall educational objectives and mission of the university. The implementation of any approved changes will be communicated transparently to the university community, and appropriate measures will be taken to facilitate a smooth transition for all affected parties.