**M.Sc. in Biostatistics**

**Prerequisite courses**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course code** | **Name of Course** | **unit** | **time** | | | | **Prerequisite** |
| **Theoretical** | **Practical** | | **Total** |
| 01 | Biostatistics  Methods (1) | 3 | 51 |  | 51 | |  |
| 02 | Principles of  Medicine | 2 | 34 |  | 34 | |  |
| 03 | Principles and methods of epidemiology | 3 | 51 |  | 51 | |  |
| 04 | Medical information systems | 1 | 9 | 17 | 26 | |  |
| **Total** | | **9** |  |  |  | |  |

**Compulsory Courses**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course code** | **Name of Course** | **unit** | **time** | | | | **Prerequisite** |
| **Theoretical** | **Practical** | | **Total** |
| 05 | Inference in Biostatistics | 3 | 51 |  | 51 | |  |
| 06 | Biostatistics  Methods (2) | 3 | 51 |  | 51 | | 01 |
| 07 | Biostatistics  Methods (3) | 3 | 51 |  | 51 | | 06 |
| 08 | Survival data analysis in medical research | 3 | 51 |  | 51 | | 05,01 |
| 09 | Design and analysis of clinical trials | 3 | 51 |  | 51 | | 06 |
| 10 | Applied Multivariate Analysis | 3 | 51 |  | 51 | | 06 |
| 11 | Seminar | 2 | 34 |  | 34 | |  |
| 12 | Thesis | 6 |  |  |  | |  |
| **Total** | | **26** |  |  |  | |  |

**Mandatory Courses**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course code** | **Name of Course** | **unit** | **time** | | | | **Prerequisite** |
| **Theoretical** | **Practical** | | **Total** |
| 13 | Principles of Medical Demography | 3 | 51 |  | 51 | |  |
| 14 | Statistical methods in epidemiology | 3 | 51 |  | 51 | | 03,01 |
| 15 | Analysis of categorical data | 3 | 51 |  | 51 | | 06,01 |
| 16 | Sampling methods | 3 | 51 |  | 51 | | 06,01 |
| 17 | Statistical simulations | 3 | 51 |  | 51 | | 06,01 |
| 18 | Nonparametric statistics | 3 | 51 |  | 51 | | 06,01 |
| **Total** | | **18** | **306** |  | **306** | |  |

**M.Sc. in Biostatistics**

**First Semester**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course code** | **Name of Course** | **unit** | **time** | | | | **Prerequisite** |
| **Theoretical** | **Practical** | | **Total** |
| 02 | Principles of  Medicine | 2 | 34 |  | 34 | |  |
| 04 | Medical information systems | 1 | 9 | 17 | 26 | |  |
| 03 | Principles and methods of epidemiology | 3 | 51 |  | 51 | |  |
| 05 | Inference in Biostatistics | 3 | 51 |  | 51 | |  |
| 06 | Biostatistics  Methods (2) | 3 | 51 |  | 51 | | 01 |
| **Total** | | **12** |  |  |  | |  |

**Second Semester**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course code** | **Name of Course** | **unit** | **time** | | | | **Prerequisite** |
| **Theoretical** | **Practical** | | **Total** |
| 07 | Biostatistics  Methods (3) | 3 | 51 |  | 51 | | 06 |
| 08 | Survival data analysis in medical research | 3 | 51 |  | 51 | | 05,01 |
| 14 | Statistical methods in epidemiology | 3 | 51 |  | 51 | | 03,01 |
| **Total** | | **9** |  |  |  | |  |

**M.Sc. in Biostatistics**

**Third semester**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course code** | **Name of Course** | **unit** | **time** | | | | **Prerequisite** |
| **Theoretical** | **Practical** | | **Total** |
| 09 | Design and analysis of clinical trials | 3 | 51 |  | 51 | | 06 |
| 10 | Applied Multivariate Analysis | 3 | 51 |  | 51 | | 06 |
| 11 | Seminar | 2 | 34 |  | 34 | |  |
| 15 | Analysis of categorical data | 3 | 51 |  | 51 | | 06,01 |
| **Total** | | **11** |  |  |  | |  |

**M.Sc. in Biostatistics**

**Forth semester**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course code** | **Name of Course** | **unit** | **time** | | | | **Prerequisite** |
| **Theoretical** | **Practical** | | **Total** |
| 12 | Thesis | 6 |  |  | 1-3 Semesters | |  |