| Department -Statistics-BSc(Major-Statistics) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Level +Sem** | | **Disciplinary Major Mandatory** | **DSE Electives** | **Minor(Electronics)** | **Mathematics** | **Physics** | **Chemisty** | **OE** | **VC/SEC** | **AEC, VEC, IKS** | **OJT, FP, CEP, CC, RP** | **Total** |
| 4.5 | I | 4Cr-T:Descriptive Statistics 2Cr-P:Practical based on descriptive statistics | | | | | | 2Cr-P:Data visualization using MS Excel (Hands on training ) 2Cr-T:Counting Principles used in | 4Cr-T:Sampling methods and surrvey (Theory+Project) (SEC) | 2r-P-English-I(AEC) 2Cr-P- Statistcal computation using MS Excel (VEC 2Cr-T:Study of population (IKS) | CC : 2Cr:Physical Education | **22** |
| 4.5 | II | 4Cr-T:Discrete probability and probability distributions 2Cr-P: Practical based on discrete probability and probability distributions | | 2Cr-T:Basics of Electronic devices and Systems | **2Cr-T:Basic Course in Algebra** | 2Cr-T: Calibration Techniques/ Instrumentation for agriculture | 2 Cr-T: Fundamental Biochemistry | 2Cr-T:Study of some important continuous probability distributions 2Cr-T:Operation research, Project evaluation | 4 Cr-T:Skills for project report writting (SEC) | 2Cr-T:English_II (AEC) 2Cr-P-Introduction to R software (VEC) | CC: 2Cr :Fine arts | **22** |
| **Cumulative** | | **12** | | **2** | | | | **8** | **8** | **10** | **4** | **44** |
| **Certificate on Exit + 4 credit Bridge Course** | | | | | | | | | | | | **44** |

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| 5 | III | 4Cr-T: Continuous distributions 2Cr-PLearning the chance factor using MS Excel 2Cr-P:Programming in R software | | 2Cr-T:Digital System Design 2Cr-P:Practicals based on Digital System Design | **2Cr-T:Basic Course in Calculus 2Cr-P:Practical Course based on Minor Paper - 2** | 2Cr-T: Basic Telecommunication 2Cr-P:Fun with Mechanics | 4Cr-T:Chemistry of life | 2Cr-P:Curve fitting and fitting of regression models (Hands on training ) | 2Cr-P: Learning LaTeX software (VC) | 2Cr-T: Enviromental Science (VEC) OR 2Cr-T: Communication Skills (Spoken English) (ACE) | CC:2Cr Yoga | **22** |
| 5 | IV | 4Cr-T:Statistical methods (Time series, Simulation, queueing models 2Cr-P:Introduction to C language 2Cr-P:Introduction to SQL | | 2Cr-T:Analog System Design 2Cr-P:Practicals based on Analog System Design | **2Cr-T: Matrix Theory 2Cr-P:Practical Course based on Minor Paper - 4** | 2Cr-T:Fiber Optic Communication 2Cr-P:Basic Optics | 4Cr-T:Chemistry of Materials | 2Cr-P:Introduction to Python for handling large Data | | 2Cr-T: Communication Skills (Written English)(ACE) | CC:2Cr Drama | **22** |
| **Cumulative** | | **28** | | **10** | | | | **12** | **12** | **14** | **8** | **84** |
| **Diploma on Exit + 4 credits of NSQF and Internship** | | | | | | | | | | | | |

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| **Level +Sem** | | **Disciplinary Major Mandatory** | **DSE Electives** | **Minor(Electronics)** | **Mathematics** | **Physics** | **Chemisty** | **OE** | **VC/SEC** | **AEC, VEC, IKS** | **OJT, FP, CEP, CC, RP** | **Total** |
| 5.5 | V | 2Cr-T:Regression Analysis 2Cr-T: Theory of Estimation 2Cr-T: Sampling Methods 4Cr-P: Practical based on Regression, Sampling methods using R software | 4Cr-T:Medical Statistics OR 4Cr-T:Actuarial Statistics | 2Cr-T:Digital and wireless communication systems 2Cr-P:Practical based on Communication | **2Cr-T:Differential and Integral Calculus 2Cr-P: Practical Course based on Minor Paper - 6** | 2Cr-T:Lasers and its Applications 2Cr-P: Optoelectronics/ Photonics | 2Cr-P:Laboratory Safety 2Cr-T:IPR and Chemoinformatics | | 2Cr-P:C programming(VC) | | OJT 4Cr Internship :Data Science or Big Data. FP: 2Cr Project | **22** |
| 5.5 | VI | 2Cr-T:Testing of hypotheses 2Cr-T:Design of Experiment 2Cr-T:Operation research 4Cr-P: Practical based on Testing of Hypotheses, DOE, Operation research using R software | 4Cr-T:Intoduction to Survival Analysis OR 4Cr-T:Stochastic Processes | 2Cr-T:Microcontroller and Embedded Systems 2Cr-P:Interfacing and Programming the microcontroller | **2Cr-T:Applied Mathematics 2Cr-P:Practical Course based on Minor Paper - 8** | 2Cr-T:Acoustics 2Cr-P:Radiation Physics | 2Cr-T:Instrumental methods of analysis 2Cr-P: Analytical Chemistry Practical Course | | | | OJT 4Cr Internship :Data analytics | **22** |
| **Cum** | | **48** | **8** | | | | | **12** | **8-10 + 6** | **8+4+2** | **8+2+4+4** | **120-132** |
| **Award of Degree** | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Level +Sem | | Disciplinary Major Mandatory | DSE Electives | Minor(Electronics) | Mathematics | Physics | Chemisty | OE | VC/SEC | AEC, VEC, IKS | OJT, FP, CEP, CC, RP | Total |
| 6 | VII | 4Cr-T:.Basics of Real analysis<br>4Cr-T: Stochastic Process<br>4Cr-T: Multivariate Analysis<br>2Cr-P:Practical based on Real Analysis, Stochastic Process, Multivariate Analysis using R Softwar | 4Cr-P:Machine Learning OR 4Cr-T:Numerical Methods | 2Cr T +2Cr P:RM : 4 | | | | | | | OJT 4Cr Industrial visit and project report writing | 22 |
| 6 | VIII | 4Cr-T:Basics of Real analysis<br>4Cr-T:Vectior Algebra<br>4Cr-T: Bayesian Analysis<br>2Cr-P:Practical based on Real Analysis, Vector Algebra, Multivariate Analysis using R Softwar | 4Cr-P:Introduction to SAS OR 4Cr-T:Time series and Econmetrics | | | | | | | | | 22 |
| Cumulative | | 76 | 16 | 22 | | | | 12 | 8-10 + 6 | 8+4+2 | 8+2+4+8 | 160-176 |
| Four Year UG Honors Degree | | | | | | | | | | | | |