Shivaji University, Kolhapur

Department of Statistics

"A" RE-ACCREDITED BY NAAC (2014) WITH CGPA-3.16

Placement Brochure

2014 - 2015

About the Department

The Department of Statistics was established in 1982. Shivaji University, Kolhapur launched the M.Sc. Statistics program in the year 1982-83. Dr. R. K. Saxena was the founder head of the Department of Statistics. Initially there were no permanent faculty members in the Department. However, the Department was fortunate enough to have visiting teachers of the caliber of Prof. S. M. Patil, Prof. D. K. Rajhans, Prof. S. R. Badi, Prof. B. K. Kale and others. In 1984, Prof. M. S. Prasad, Prof. R. N. Rattihalli, Prof. B. V. Dhandra and Prof. S. R. Kulkarni joined the Department. The current profile of the Department can be found at http://www.unishivaji.ac.in/dptstat/ .

Courses

- *M.Sc. Statistics:*

The Department admits 30 students to this program through a national level entrance examination each year. The program is offered under choice based credit system (CBCS). The program has unique features such as projects (field based), seminars and extensive computer training of statistical software packages. Syllabus has been framed with a good balance of theory, methods and applications of statistics and is structured to provide knowledge and skills in depth, necessary for the employability of students in various fields. Detail syllabus can be found at

http://www.unishivaji.ac.in/syllabus/science/2013/MSc/Statistics_SEM_I_&%20II_Revised_syllabus.pdf
 and
http://www.unishivaji.ac.in/uploads/syllabus/Science/M.Sc/M.%20Sc.%20Statistics.pdf

Course Structure:

Semester I	Semester II
Statistical Mathematics I	Probability Theory
Statistical Mathematics II	Theory of Testing of Hypotheses
Distribution Theory	Multivariate Analysis
Estimation Theory	Linear Models & Design of Experiments
Statistical Computing	Sampling Theory
Practical I	Practical II
Semester III	**Semester IV**
Asymptotic Inference	Optimization Techniques
Elementary Stochastic Processes	Practical IV and Project
Planning and Analysis of Industrial Experiments.	Any Four Electives from the following:
Practical III	Discrete Data Analysis
Any Two Electives from the following:	Survival Analysis
Reliability Theory	Industrial Statistics
Regression Analysis	Time Series Analysis
Statistical Genetics	Statistical Ecology
Measure Theory	Econometrics
Demography	Advanced Multivariate Analysis
Medical Statistics	Data Mining
Advanced Stochastic Processes	Decision Theory
Actuarial Statistics	
Dissertation	

- *M.Sc. Applied Statistics and Informatics*

The course is sponsored by UGC under Innovative Programme - Teaching and Research in Interdisciplinary and Emerging Areas. The course was started in 2013-14. The Department admits 15 students to this program through a national level entrance examination each year. The program is offered under choice based credit system (CBCS). The course is interdisciplinary in nature and designed to train students in Statistics, Mathematics and Computer Science with more emphasis on applied statistics papers. The program has unique features such as projects (in Industry), seminars and extensive computer training of statistical software packages. Detail syllabus can be found at

http://www.unishivaji.ac.in/syllabus/science/2013/MSc/M.Sc.%20Applied%20Statistics%20and%20Informatics%20Sturcture%20of%20the%20Course.pdf

Course Structure:

Semester I	Semester II
Fundamentals of Computer Programming	Probability Theory
Statistical Mathematics	Multivariate Analysis
Probability Distributions	Sampling Theory
Statistical Inference	Linear Models and Design of Experiments
Statistical Computing and Numerical Methods.	Advanced Data Structure with C++
Practical -I	Practical -II and Project-I
Semester III	**Semester IV**
Stochastic Processes	Optimization Techniques
Computer Graphics	Discrete Data Analysis
Practical- III	Practical -IV and Project- II
Elective I Any one from the following:	Elective IV Any one from the following:
Regression Analysis	Time Series Analysis
Computer Intensive Statistical Methods	Planning and Analysis of Industrial
Elective II Any one from the following:	Experiments
Advanced Programming	Elective V Any one from the following:
Database Management System	Industrial Statistics
Elective III Any one from the following:	Statistical Decision Theory
Reliability and Survival Analysis	Elective VI Any one from the following:
Analysis of Clinical Data	Data Warehousing and Data Mining
Actuarial Statistics	Artificial Intelligence

- *Post Graduate Diploma in Actuarial Science*

The Department admits 20 students to this program through a national level entrance examination each year. It is preparatory course for exams conducted by **Actuarial Society of India (ASI)** (http://www.actuariesindia.org). The course structure is designed to meet the requirements of CT series of ASI, besides practical and project components. Detail structure and syllabus can be found at

http://www.unishivaji.ac.in/uploads/syllabus/Science/Other/P.G.Diploma%20in%20Acturial%20Science.pdf

- *M.Phil. and Ph.D. in Statistics*

The Department admits students to these programs as per the availability of vacancies with each of recognized guide through a national level entrance examination each year. The course consists of course work followed by examination and Thesis (Dissertation for M.Phil.). Detail syllabus for course work can be found at

http://www.unishivaji.ac.in/syllabus/science/MP/M.Phil.SyllabiStatistic.pdf

Facilities at the Department

- **Faculty:** Faculty members are renowned in their discipline and are active in research which is evidenced by good number of research publications in National and International Journals. Publications per faculty during last five years are 3 per annum. The Department has produced 11 Ph.D.'s and 2 M.Phil.'s during last five years. The thrust areas of research of the Department as identified by different funding agencies through funding research projects are
  - Statistical Modeling and Inference
  - Statistical Process Control and Optimization

  Based on the quality research output, faculty members have succeeded to attract handsome grants from the different funding agencies in India like DST, UGC, CSIR, DEC, etc. Faculty members have established collaborations at different fronts with researchers working in the institutes of international repute like ISI, Kolkata and Pune, Florida International University, Miami, USA, [24]7 Inc., Innovations Labs, Bangalore, India, Bangalore University, Bangalore, etc.

- **Infrastructure:**
  - 4 classrooms, 2 of which are smart classrooms
  - 3 well equipped computer laboratories with student computer ratio 1:1.
  - Commercial Statistical Software: SAS, SPSS, MATLAB, STATISTICA, SYSTAT, MATHEMATICA

- ➢ Apart from Central library, the Department has its own library: More than 500 titles
- ➢ Internet connectivity to every computer in the Department.

- **Statistical Consultancy Unit:**
  The faculty members are actively engaged in consultancy service through statistical consultancy unit. Consultancy services are extended to but not limited to Research Scholars and Teachers from Education, Social Science, Management, Medical, Technology, Life Sciences, Sports, Environment Science. Resources generated through this unit are utilized for student welfare.

- **Placement Cell:**
  The Department has a dedicated Department Placement Officer (DPO). Our alumni are working in the following domains:
  - ➢ Credit scoring and risk modeling
  - ➢ Software development
  - ➢ Business Analytics
  - ➢ Clinical Trials Reserch

For placement related activities contact

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Our alumni are employed by: