Department of Statistics

Programs – B.Sc. (MSCS & MSDS)

Statistics Course Structure

2024-25

Semester	Generic Code	Course code	Course Title	PPW	Credit
I	DSC1	STA 101	Descriptive Statistics and Probability	4	4
	DSC1-Pr	STA111	Descriptive Statistics and Probability (Practical)	3	1
	AECC -1	AECC 101	Environmental Science	2	2
II	DSC2	STA 202	Probability Distributions	4	4
	DSC2-Pr	STA 212	Probability Distributions (Practical)	3	1
	AECC - 2	AECC	Gender Studies	2	2
III	DSC3	STA 303	Linear Regression Analysis & Statistical Inference I	4	4
	DSC3-Pr	STA 313	Linear Regression Analysis & Statistical Inference I(Practicals)	3	1
	SEC1	SEC 301	Communication/Professional skills	2	2
	SEC2	SEC 302	Data Scaling Techniques & Report Writing / R Programming	2	2
IV	DSC4	STA 404	Statistical Inference II	4	4
	DSC4-Pr	STA 414	Statistical Inference II (Practicals)	3	1
	SEC3	SEC 403	Leadership and Management skills/Human Values	2	2
	SEC4	SEC 404	Data Scaling Techniques & Report Writing / R Programming	2	2
V	DSE5A	STA 505A	Sampling Techniques, Time Series and SQC (Theory)	4	4
	DSE5A-Pr	STA 515A	Sampling Techniques, Time Series and SQC (Practicals)	3	1
	DSE5B	STA 505B	Analytical Statistics I (Theory)	4	4

	DSE5B-Pr	STA 515B	Analytical Statistics I (Practical)	3	1
	DSE5C	STA 505C	Bio Statistics I (Theory)	4	4
	DSE5C-Pr	STA 515C	Bio Statistics I (Practical)	3	1
	GE1	IDC501	Essential Statistics (for non-statistics students)	4	4
VI	DSE6A	STA 606A	ANOVA, DoE, Vital Statistics and Index Numbers (Theory)	4	4
	DSE6A-Pr	STA616A	ANOVA, DoE, Vital Statistics and Index Numbers (Practical)	3	1
	DSE6B	STA 606B	Analytical Statistics II (Theory)	4	4
	DSE6B-Pr	STA 616B	Analytical Statistics I (Practical)	3	1
	DSE6C	STA 606C	Bio Statistics II (Theory)	4	4
	DSE6C-Pr	STA 616C	Bio Statistics II (Practical)	3	1
	AECC - 3*	AECC 03	Capacity building	2	2
	PR1/DSC 7	STA 607	Core Course - Operations Research	6 - 4	4

Description: You will learn effective strategies for assembling, analyzing, and reporting financial data for a wide range of for-profit and nonprofit businesses. Prepares students for employment in public and private accounting.

Curriculum: A broad business curriculum, including courses in accounting, management, finance, marketing, and economics. In addition, courses in communications, ethics, and data analysis provides you knowledge in all aspects of the accounting field. Specialized courses in accounting include: income taxes and auditing.

Study abroad opportunities: You can usually include a study abroad experience in your second or third year.

Fieldwork experience: A 3-credit internship is highly encouraged during your third or fourth year.

Highlights:

- ✓ Robust Curriculum including the descriptive analytics, inferential analytics, predictive analytics, data visualization, applied statistics – sampling theory, Statistical Quality Control (SQC), Design of Experiments, Operations Research.
- ✓ Didactic lectures
- ✓ Experiential learning through practicals, surveys, projects and case studies
- ✓ Skills training – MS Excel & R Programming
- ✓ Sigma Club – Students' club
- ✓ **Statopedia** - Preparing the students for careers in Statistics and related higher education or jobs through a formal coaching by the faculty of the department.

Higher Education

- M.Stat, M.Math, etc. – Indian Statistical Institute (Kolkatta, Delhi, Bengaluru, Hyderabad)

- M.Sc. Statistics, Mathematics, Computer Science, MCA – IITs, Central Universities, National Level Universities (Osmania University, Kakatiya University, Telangana University, Nagarjuna University, Madras University, etc.)
- MBA – IIMS, IISC, IITs, Central Universities, National Level Universities (Osmania University, Kakatiya University, Telangana University, Nagarjuna University, Madras University, etc.)
- Master's in Public Health – IIPH, Hyderabad

- M.Sc. in Population Studies, Bio-Statistics & Demography, Survey Research & Data Analytics (International Institute of Population Studies-IIPS, Mumbai)

- Master's in Actuarial Statistics (Kerala University)
- Post Graduate Diploma in Risk Management (Indian Institute of Risk Management – IIRM, Hyderabad)

Actuarial Science – Self-study course with high career prospects

Become an Actuary   **Actuarial Studies**

Jobs :

Government:

- **Indian Statistical Service (ISS) – B.Sc.**
- **RBI – Grade B Jobs in Statistics Dept. – B.Sc.**
- **Assistant Statistical Officer (ASO) – B.Sc.**
- **Statistical officer (UPSC Examination) – B.Sc.**
- **Insurance Regulatory & Development Authority of India (IRDAI) – M.Sc.**
- **Ministry of Textiles, etc**

Private Sector:

IT industry, Pharmaceutical Industry, Insurance industry, etc