M. G. Science Institute, Ahmedabad

Autonomous | Affiliated to Gujarat University, Ahmedabad

(Managed by The Ahmedabad Education Society)

Department of Statistics

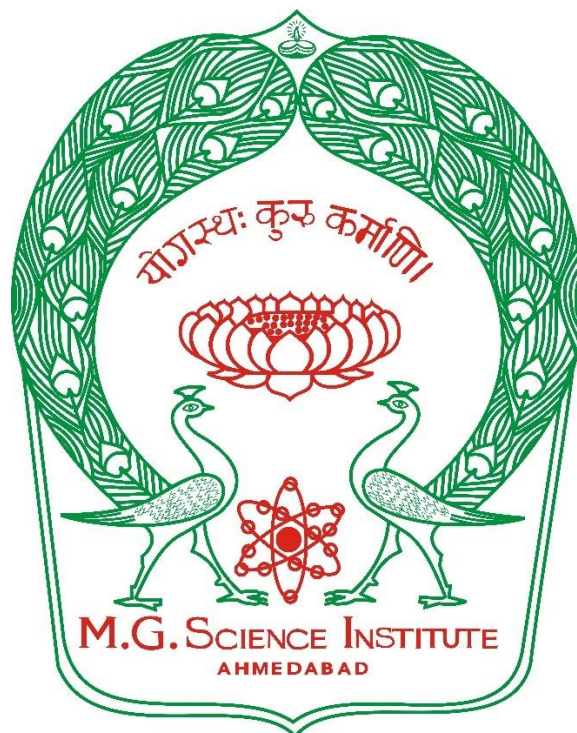**Bachelor of Science (Hons.) in Statistics**

B.Sc. (Hons.) Statistics

4 Year, 8 Semester Full-Time Programme

Choice Based Credit System (CBCS) & Grading System

Outcome-Based Education Pattern

(Effective from Academic Year 2024-25)

B. Sc. Sem II Statistics

Detailed Syllabus for STSEC126 Advanced Excel Skills for Data Science

Semester: II	Course Title: Advanced Excel Skills for Data Science	Credit: 2
Course No.: STSEC126		Hours: 2/week

Course Outcomes: On successful completion of the course the learner will be able to

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 1	REMEMBERING	Remember Excel functions, data validation tools.
CO 2	UNDERSTANDING	Understand Advanced Excel formula and other data validation tools.
CO 3	APPLYING	Apply pivoting technique to summarize the real-life data. Apply slicers to the data in excel. Applying page layout to excel worksheet.
CO 4	ANALYSING	Analysing data using advanced excel functions and techniques.
CO 5	EVALUATING	Summarize the data using suitable filtering and pivot table techniques.
CO 6	CREATING	Students can visualize the data using charts and slicers.

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	3	1	1	1	
CO 2	1	1	1	2	
CO 3	1	1	3	1	
CO 4	2	1	3	1	
CO 5	1	1	2	1	
CO 6	1	1	2	3	1

Unit	Detailed Syllabus	No. of Hours of Teaching
I	**Advanced MS Excel** • Advance functions: ifs, sumif, sumifs, averageif, averageifs, lookup, vlookup and hlookup, xlookup. • Data Validation • Create and modify pivot tables, value field settings, Sorting and filtering pivot tables. • Charts and Slicers. • Page layouts, and page setup.	15
II	**Practical Based on Unit-I** 1. Use of advanced Excel functions: ifs, sumif, sumifs, averageif, averageifs. 2. Use of lookup, vlookup, hlookup functions 3. Creating and modifying pivot tables. 4. Use of data validations. 5. Charts and slicer	30

Suggested Reference Books:
1. Microsoft Excel: Data Analysis and Business Model, PHI, Wayne, WL, 2019.

Microsoft Excel Formulas and Functions Dummies, Ken Bluttman, 2020.