GANPAT UNIVERSITY								
FACULTY OF MANAGEMENT STUDIES								
Programme		Master of Business Administration			Branch/Spec.	Finance		
Semester		III			Version	1.0.0.0		
Effective from Academic Year			2021-22		Effective for the batch Admitted in			June 2020
Subject code		**IIIA12FMO**		Subject Name		**FINANCIAL MODELLING**		

Teaching scheme					Examination scheme (Marks)			
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW				
Credit	4	0	0	0	4	Theory	60	40	100
Hours	4	0	0	0	4	Practical	-	-	-

Pre-requisites: The students should possess basic understanding of Financial Statements; Financial Management and Ratio Analysis; Valuation Methods,Excel, Written Communication, Analytical Ability

Objectives: To let students acquaint building quantitative models for financial decision making

Learning Outcomes:

IIIA12FMO.CO1: Demonstrate advanced spreadsheet functions and modelling techniques to analyze, evaluate, and optimize financial decisions using tools such as NPV, IRR, Solver, and Monte Carlo simulations.
IIIA12FMO.CO2: Use financial modelling techniques to prepare projected financial statements, appraise projects using sensitivity analysis, and evaluate option pricing, Greeks, and implied volatility for informed financial decision-making.
IIIA12FMO.CO3: Execute advanced financial modelling techniques to forecast operating performance, construct valuation and credit models, and perform time-series analysis for strategic financial decision-making.
IIIA12FMO.CO4: Implement statistical techniques using software tools such as SPSS, R, and Python for data analysis and interpretation.

Theory syllabus

Unit	Content	Hrs
1	Using Built-in Financial Functions in spreadsheets: Functions related to Time value and valuation: NPV, XNPV, IRR, XIRR, MIRR, PV, FV, PMT, RATE, NPER, CUMPRINC, CUMIPMT Functions. • Advanced Spreadsheet Features: IF, DATE, LOOKUP, Circular Reference Problem, Advanced Applications in Financial Modelling: Solver Applications, Monte Carlo Simulations, Trend-lines Building, Introduction to Key-stroke Macros, Goal-seek,Scenarios, Data validation, Data manipulation	15
2	Financial Modelling, Preparing Projected Financial Statements, Conducting Project Appraisal and Sensitivity Analysis, Modelling Option Pricing, Option Greeks, Implied Volatility	15
3	Forecasting operating revenues, expenses and operating profit, property, working capital Model debt & interest expense, equity & dividends, Valuation using DCF, Leveraged Buyout Model (LBO), M&A model, Comparable Company Analysis, Credit Rating Model Time-series analysis: Introduction and techniques	15
4	Introduction to various statistical packages: SPSS, R, Python, Econometrics	15

Practical content

	Text Books
1	Michael Rees- Principles of Financial Modelling: Model Design and Best Practices Using Excel and VBA (Wiley)

	Reference Books
1	Sengupta, C. - Financial analysis and modeling using Excel and VBA (John Wiley & Sons)
2	Rees, M. - Financial Modelling in Practice: A concise guide for intermediate and advanced level (John Wiley & Sons)

3	George-IBM SPSS Statistics 23 Step by Step, A Simple Guide and Reference (Taylor & Francis)
4	Kiran Pandya, Smruti Bulsari, Sanjay Sinha -SPSS in Simple Steps (DreamTech Press)
5	Hadley Wickham, R for Data Science: Import, Tidy, Transform, Visualize, and Model Data (O' Reilly)
6	Andrie de Vries, Joris Meys, R For Dummies
7	Martin C. Brown, Python: The Complete Reference (TMH)
8	John Shovic, Alan Simpson-Python All - in - One For Dummies (Wiley)
9	Paul Pignataro-Financial Modeling and Valuation: A Practical Guide to Investment Banking and Private Equity-John Wiley & Son
10	Winston, W. - Microsoft Excel data analysis and business modeling (Microsoft press)

Evaluation scheme:

Component:	Weightage:
1. University Exam:	40% (As per Exam Scheme 60:40)
2. Mid Semester Exam:	As per Exam Scheme (30%)
3. Continuous internal evaluation:	As per Exam Scheme (30%)
i. Quiz	15%
ii. Assignment & Viva	15%

Note:

Version 1.0.0.0 (First Digit= New syllabus/Revision in Full Syllabus, Second Digit=Revision in Teaching Scheme, Third Digit=Revision in Exam Scheme, Forth Digit= Content Revision)

L=Lecture, TU=Tutorial, P= Practical/Lab., TW= Term work, DT= Direct Teaching, Lab.= Laboratory work

CE= Continuous Evaluation, SEE= Semester End Examination

Mapping of CO with PO and PSO:

Semester 3: Course Name: IIIA12FMO: FINANCIAL MODELLING							
Course outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7
IIIA12FMO.CO1	2	3	0	2	0	1	2
IIIA12FMO.CO2	3	3	0	2	1	1	2
IIIA12FMO.CO3	3	3	0	2	1	1	2
IIIA12FMO.CO4	3	3	0	2	1	1	1

Semester 3: Course Name: IIIA12FMO: FINANCIAL MODELLING			
Course outcomes	PSO1	PSO2	PSO3
IIIA12FMO.CO1	2	3	3
IIIA12FMO.CO2	2	3	3
IIIA12FMO.CO3	3	3	3
IIIA12FMO.CO4	3	3	2