MA/MSC. IN FINANCIAL ECONOMICS

Programme Structure and Syllabus

Effective from Academic Session - 2023-24

Approved by Board of Studies
Held On 04 May 2023

Revised After Academic Council Meeting
Held on 09 September 2023

Department of Economics
Birla School of Social Sciences and Humanities
Birla Global University
IDCO Plot - 2, Gothapatna,
Bhubaneswar -751029, Odisha

CONTENT

1.1 Vision, Mission and Core Values of the University

Vision of the University

To create and disseminate knowledge in global context while pursuing Excellence, Innovations and Inclusiveness.

Mission of the University

- To globalize through international collaborations and exchange of students and faculty.
- To strive for excellence in teaching and research.
- To continuously innovate pedagogy and course content.
- To encourage diversity and inclusiveness.

Core Values

- **HONESTY AND INTEGRITY** – We believe in being truthful and adhering to the highest ethical standards in personal and professional conduct.

- **EMPATHY** – We recognize the needs of human development and respect diverse social, cultural and economic perspectives.

- **TRANSPARENCY** – We believe in openness and assume responsibility as well as accountability in all our dealings and actions.

- **FREEDOM** – We value the freedom of thought and expression to develop one's creativity and innovation in pursuit of academic excellence.

- **RESPECT** – We foster a culture of respecting self and others.

- **COLLABORATION** – We encourage teamwork and partnership in all endeavors for knowledge creation, acquisition and dissemination.

1.2 Vision and Mission of the School: Birla School of Social Sciences and Humanities

Vision of the School

To be a globally reputed institute in humanities and social science teaching, research and consultancy fostering innovation and entrepreneurship for developing socially responsible leaders. To create and disseminate knowledge pursuing excellence with ethics for inclusive social development

Mission of the School

M1. Imparting global standard quality teaching and developing research orientation for understanding social issues for providing effective policy solution.

M2. Collaborate with International institutions and institutes of repute for multidisciplinary students and faculty exchange for fostering cutting edge research in wider learning environment.

M3. Regularly updating course content with innovative pedagogy of teaching and learning

M4. Preparing and encouraging students for handling diverse problems addressing inclusiveness.

About the program

Name of the program: Master of Arts/Science in Financial Economics (MA/MSc. in Financial Economics)

Award of degree: Students having bachelor degree in science will be awarded MSc. in Financial Economics and others will be awarded MA in Financial Economics

Duration of Programme : Two years (Four Semesters) full time program.

Eligibility for admission: Graduate with 50 per cent mark in aggregate with statistics/ mathematics as a paperat the graduate level and the admission test as stipulated by the university from time to time.

1.3 Programme Educational Objectives (PEOs)

1.3.1 Programme Educational Objectives

PEO-1 Students will have proficiency in applying economic and financial concept for solving practical problem.

PEO-2 Graduates will apply the empirical skill and can choose diverse careers option in different functional area of finance and economics.

PEO-3 Student will develop a positive attitude, interpersonal and leadership skills of the students through co-curricular and extracurricular activities.

PEO-4 Graduates will establish themselves as successful global professionals by solving real-life problems using scientific knowledge and analytical skills gained in the field of finance and economics.

PEO-5 The graduates will practice moral values, professional ethics and social responsibilities while performing their duties to provide solutions to global problems.

1.3.2 Mapping of PEOs with School Mission Statements

PEO Statements	School Mission 1	School Mission 2	School Mission 3	School Mission 4
PEO1:	3	2	3	2
PEO2:	1	3	2	2
PEO3:	2	2	2	2
PEO4:	3	3	2	1
PEO5:	3	1	1	3

Correlation level 1, 2 and 3 as defined below:

"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

1.3.3 Programme Outcomes (POs)

Students of all undergraduate general degree Programmes at the time of graduation will be able to:

POs	Attributes	Explanation
PO1	Critical Thinking	Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO2	Effective Communication	Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO3	Social Interaction	Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO4	Effective Citizenship	Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO5	Ethics	Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO6	Environment and Sustainability:	Understand the issues of environmental contexts and sustainable development.
PO7	Self-directed and Life-long Learning	Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.
PSO1		Understand the economic theory and practices
PSO2		Apply appropriate skills for solving economic and financial problems
PSO3		Analyze economic and financial data for decision making
PSO4		Evaluate and implement sustainable financial intervention

1.3.4 Mapping of Program Outcome Vs Program Educational Objectives

Mapping	PEO1	PEO2	PEO3	PEO4	PEO5
PO1	3	3	2	1	2
PO2	-	-	-	-	-
PO3	3	3	3	-	2
PO4	3	3	2	-	2
PO5	2	3	2	-	2
PO6	1	2	3	3	2
PO7	1	1	1	2	2

PSO1	3	2	2	1	2
PSO2	2	3	3	2	1
PSO3	3	2	1	2	1
PSO4	1	2	1	2	3

Correlation level defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

1.3.5 Program Outcome Vs. Courses Mapping Table

Course Code	Course Name	COs	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO2	PSO3	PSO 4
Semester I													
MFEC -101	Microeconomics	CO101.1	2	2	2	1	1	-	-	3	2	3	3
		CO101.2	3	2	2	1	1	-	-	3	3	3	3
		CO101.3	3	1	2	1	1	-	-	3	2	3	2
		CO101.4	3	1	1	1	1	-	-	3	2	3	3
		CO101.5	3	1	1	1	1	-	-	3	2	3	3
		Average	2.8	1.4	1.6	1	1	-	-	3	2.2	3	2.8
MFEC102	Statistics	**CO201.1**	1	2	3	1	1	-	-	3	2	3	2
		CO201.2	3	2	3	1	1	-	-	3	1	3	2
		CO201.3	1	2	3	1	1	-	-	3	2	3	2
		CO201.4	3	2	3	1	1	-	-	3	1	3	2
		CO201.5	3	2	3	1	1	-	-	3	1	3	2
		Average	2.2	2	3	1	1	-	-	3	1.4	3	2
MFEC103	Mathematical Economics	CO102.1	2	1	1	1	1	-	-	3	2	3	3
		CO102.2	2	2	2	1	1	-	-	3	3	3	2
		CO102.3	3	1	1	1	1	-	-	3	2	3	2
		CO102.4	3	1	1	1	1	-	-	3	3	3	3
		CO102.5	3	1	1	1	1	-	-	3	3	3	3
		Average	2.6	1.2	1.2	1	1	-	-	3	2.6	3	2.6
MFEC104	Financial Management	CO225.1	2	2	1	1	1	-	-	3	2	3	1
		CO225.2	2	2	1	1	1	-	-	3	3	2	1

Course Code	Name	CO											
		CO225.3	3	1	1	1	1	-	-	3	2	3	3
		CO225.4	3	1	1	1	1	-	-	3	3	3	3
		CO103.5	3	1	1	1	1	-	-	3	3	3	3
		Average	**2.6**	**1.4**	**1**	**1**	**1**	**-**	**-**	**3**	**2.6**	**2.8**	**2.2**
MFEC105	Financial Institutions and Markets	CO225.1	2	2	2	1	1	-	-	3	2	3	2
		CO225.2	2	2	3	3	1	-	-	3	1	3	2
		CO225.3	2	3	2	2	1	-	-	3	2	2	2
		CO225.4	2	3	3	3	1	-	-	3	3	3	2
		CO104.5	2	3	3	3	1	-	-	3	3	3	2
		Average	**2**	**2.6**	**2.6**	**2.4**	**1**	**-**	**-**	**3**	**2.2**	**2.8**	**2**

Semester II

Course Code	Name	CO											
MFEC 201	Macroeconomics	CO102.1	2	1	1	1	1	-	-	3	2	3	3
		CO102.2	2	2	2	1	1	-	-	3	3	3	2
		CO102.3	3	1	1	1	1	-	-	3	2	3	2
		CO102.4	3	1	1	1	1	-	-	3	3	3	3
		CO102.5	3	1	1	1	1	-	-	3	3	3	3
		Average	**2.6**	**1.2**	**1.2**	**1**	**1**	-	-	3	**2.6**	3	**2.6**
MFEC202	Basic Econometrics	**CO202.1**	2	1	1	1	1	-	-	3	2	3	2
		CO202.2	2	1	2	1	1	-	-	3	3	3	2
		CO202.3	3	1	2	1	1	-	-	3	2	3	2
		CO202.4	3	1	2	1	1	-	-	3	3	2	3
		CO202.5	3	1	2	1	1	-	-	3	3	2	3
		Average	**2.4**	**1**	**1.8**	**1**	**1**	**-**	**-**	**3**	**2.6**	**2.6**	**2.4**
MFEC203	Financial Statement Analytics	CO225.1	2	2	2	1	1	-	-	3	2	3	2
		CO225.2	2	2	3	3	1	-	-	3	1	3	2
		CO225.3	2	3	2	2	1	-	-	3	2	2	3
		CO225.4	2	3	3	3	1	-	-	3	3	3	2
		CO225.5	2	2	3	3	1	-	-	3	1	3	2
		Average	2	**2.6**	**2.6**	**2.4**	**1**	**-**	**-**	**3**	**2.2**	**2.8**	**1.4**
MFEC204	Financial Technology and Computatio	CO225.1	2	2	2	1	1	-	-	3	2	3	2
		CO225.2	2	2	3	3	1	-	-	3	1	3	1
		CO225.3	2	3	2	2	1	-	-	3	2	2	2
		CO225.4	2	3	3	3	1	-	-	3	3	3	3
		CO204.5	2	3	3	3	1	-	-	3	3	3	3

Course	Name	CO											
	nal Finance Using R and Excel	**Average**	2	**2.6**	**2.6**	**2.4**	**1**	**-**	**-**	**3**	**2.6**	**2.8**	**2.2**
MFEC205	Research Methodology	CO225.1	1	1	2	1	1	-	-	3	3	2	3
		CO225.2	2	3	3	1	1	-	-	3	3	2	3
		CO225.3	2	1	1	1	1	-	-	3	3	2	2
		CO225.4	3	1	1	1	1	-	-	3	3	2	3
		CO204.5	3	1	1	1	1	-	-	3	3	2	3
		Average	**2.2**	**1.4**	**1.6**	**1**	**1**	**-**	**-**	**3**	**3**	**2**	**2.8**
Semester III													
MFECSI	Summer Internship	CO225.1	3	3	2	2	3	3	2	2	3	3	2
		CO225.2	3	3	3	2	3	3	2	2	3	3	2
		CO225.3	3	3	3	2	3	3	2	2	3	3	2
		CO225.4	3	3	3	2	3	3	2	2	3	3	2
		CO225.5	3	3	3	2	3	3	2	2	3	3	2
		Average	3	3	3	2	3	3	2	2	3	3	2
MFEC301	International trade and operation	CO225.1	3	3	2	1	1	-	-	3	2	3	2
		CO225.2	2	2	3	1	1	-	-	3	3	2	1
		CO225.3	2	2	2	1	1	-	-	3	2	3	2
		CO225.4	2	3	2	1	1	-	-	3	2	2	3
		CO225.5	2	3	2	1	1	-	-	3	2	2	3
		Average	**2.2**	**2.6**	**2.2**	**1**	**1**	**-**	**-**	**3**	**2.2**	**2.4**	**2**
MFEC302	Applied Financial Econometrics	CO225.1	3	1	1	1	1	-	-	3	2	3	2
		CO225.2	2	1	1	1	1	-	-	3	3	2	2
		CO225.3	2	2	1	1	1	-	-	3	2	3	3
		CO225.4	3	2	1	1	1	-	-	3	3	3	3
		CO302.5	3	2	1	1	1	-	-	3	3	3	3
		Average	**2.6**	**1.6**	**1**	**1**	**1**	**-**	**-**	**3**	**2.6**	**2.6**	**2.6**
MFEC303	Innovation and Venture Capital	CO225.1	2	2	2	1	1	-	-	3	2	3	2
		CO225.2	2	2	3	3	1	-	-	3	3	3	1
		CO225.3	2	3	2	2	1	-	-	3	2	2	2
		CO225.4	2	3	3	3	1	-	-	3	3	3	3
		CO303.5	2	3	3	3	1	-	-	3	3	3	3
		Average	**2**	**2.6**	**2.6**	**2.4**	**1**	**-**	**-**	**3**	**2.5**	**2.8**	**2.2**
	Elective Option-	CO225.1	3	2	2	2	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	3	-	-	3	1	3	1
		CO225.3	3	3	2	2	2	-	-	3	2	2	2

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	1, Insurance and Risk Management	CO225.4	3	3	3	3	1	-	-	3	3	3	3
		CO301.5	3	3	3	3	1	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.6**	**2**	**-**	**-**	**3**	**2.2**	**2.8**	**2**
	Elective Option-2 Banking Operations and Management	CO225.1	3	2	2	1	2	-	-	3	2	3	2
		CO225.2	3	2	3	3	2	-	-	3	1	3	1
		CO225.3	3	3	2	2	1	-	-	3	2	2	2
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO302.5	3	3	3	3	2	-	-	3	3	3	3
PEC 1& 2		**Average**	**3**	**2.6**	**2.6**	**2.4**	**1.8**	**-**	**-**	**3**	**2.2**	**2.8**	**2.2**
	Elective Option -3 Financial Derivatives	CO225.1	3	2	2	2	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	1	-	-	3	1	3	1
		CO225.3	3	3	2	2	2	-	-	3	2	2	2
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO303.5	3	3	3	3	2	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.5**	**2**	**-**	**-**	**3**	**2.2**	**2.8**	**2.2**
	Elective Option -4 Game Theory and Applications	CO225.1	3	2	2	2	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	2	-	-	3	1	3	1
		CO225.3	3	3	2	2	2	-	-	3	2	2	2
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO304.5	3	3	3	3	2	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.5**	**2.2**	**-**	**-**	**3**	**2.2**	**2.8**	**2.2**

Semester IV

MFED	Dissertation	CO225.1	3	3	2	2	3	3	2	2	3	3	2
		CO225.2	3	3	3	2	3	3	2	2	3	3	2
		CO225.3	3	3	3	2	3	3	2	2	3	3	2
		CO225.4	3	3	3	2	3	3	2	2	3	3	2
		CO225.5	3	3	3	2	3	3	2	2	3	3	2
		Average	3	3	3	2	3	3	2	2	3	3	2
MFEC 401	Public Finance and Sustainability	CO225.1	3	2	2	2	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	3	-	-	3	1	3	3
		CO225.3	3	3	2	2	2	-	-	3	2	2	2
		CO225.4	3	3	3	3	1	-	-	3	3	3	3
		CO401.5	3	3	3	3	1	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.5**	**2.25**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
		CO225.1	3	2	2	2	3	-	-	3	2	3	2

MFEC 402	Strategic Financial Management	CO225.2	3	2	3	3	2	-	-	3	1	3	2
		CO225.3	3	3	2	2	3	-	-	3	2	2	3
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO402.5	3	3	3	3	2	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.5**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
PEC- 3&4	Elective Option 1 - Business Valuations	CO225.1	3	2	2	2	3	-	-	3	2	3	-
		CO225.2	3	2	3	3	3	-	-	3	1	3	-
		CO225.3	3	3	2	2	2	-	-	3	2	2	-
		CO225.4	3	2	3	3	3	-	-	3	1	3	3
		CO225.5	3	3	2	2	2	-	-	3	2	2	2
		Average	**3**	**2.4**	**2.4**	**2.4**	**2.6**	**-**	**-**	**3**	**1.6**	**2.6**	**2.6**
	Elective Option 2 - Investment Management	CO225.1	3	2	2	2	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	2	-	-	3	1	3	2
		CO225.3	3	2	2	2	3	-	-	3	2	3	2
		CO225.4	3	2	3	3	2	-	-	3	1	3	2
		CO225.5	3	2	2	2	3	-	-	3	2	3	2
		Average	**3**	**2**	**2.4**	**2.4**	**2.6**	**-**	**-**	**3**	**1.8**	**3**	**2**
	Elective Option 3- Behavioral Finance and Engineering	CO225.1	3	2	2	1	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	2	-	-	3	1	3	3
		CO225.3	3	3	2	2	3	-	-	3	2	2	2
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO225.5	3	3	3	3	2	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.4**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
	Elective Option 4- Economics of Pandemic	CO225.1	3	2	2	2	3	-	-	3	2	3	3
		CO225.2	3	2	3	3	3	-	-	3	1	3	3
		CO225.3	3	3	2	2	2	-	-	3	2	2	2
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO225.5	**3**	**2.6**	**2.6**	**2.5**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.8**
		Average	**3**	**2.6**	**2.6**	**2.5**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.8**

1.3.6 COURSE ARTICULATION MATRIX

Year		Course Code Course Name & COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
I	SEMESTER-I	MFEC 101 Microeconomics	2.8	1.4	1.6	1	1	-	-	3	2.2	3	2.8
		MFEC 102 Statistics	2.2	2	3	1	1	-	-	3	1.4	3	2
		MFEC 103 Mathematical Economics-	2.6	1.4	1	1	1	-	-	3	2.6	2.8	2.2
		MFEC 104 Financial Management	2	2.6	2.6	2.4	1	-	-	3	2.2	2.8	2
		MFEC105 Financial Institutions and Markets	2.6	1.4	1	1	1	-	-	3	2.6	2.8	2.2
	SEMESTER-II	MFEC 201 Macroeconomics	2.6	1.2	1.2	1	1	-	-	3	2.6	3	2.6
		MFEC 202 Basic Econometrics	2.4	1	1.8	1	1	-	-	3	2.6	2.6	2.4
		MFEC 203 Financial Statement Analytics	2	2.4	2.6	2.4	1	-	-	3	1.8	2.8	2.2
		MFEC 204 Financial Technology and Computational Finance Using R and Excel	2	2.6	2.6	2.4	1	-	-	3	2.6	2.8	2.2
		MFEC 205 Research Methodology	2.2	1.4	1.6	1	1	-	-	3	3	2	2.8
II	SEMESTER-III	MFECSI Summer internship	3	3	3	2	3	3	2	2	3	3	2
		MFEC301 International Trade and Operations	2.2	2.6	2.2	1	1	-	-	3	2.2	2.4	2
		MFEC302 Applied Financial Econometrics	2.6	1.6	1	1	1	-	-	3	2.6	2.6	2.6
		MFEC303 Innovation and Venture Capital	2	2.6	2.6	2.4	1	-	-	3	2.5	2.8	2.2
		Elective Option-1, Insurance and Risk Management	3	2.6	2.6	2.6	2	-	-	3	2.2	2.8	2
		Elective Option-2 Banking Operations and Management	3	2.6	2.6	2.4	1.8	-	-	3	2.2	2.8	2.2

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		1	2	3	4	5	6	7	8	9	10	11
	Elective Option -3 Financial Derivatives	**3**	**2.6**	**2.6**	**2.5**	**2**	**-**	**-**	**3**	**2.2**	**2.8**	**2.2**
	Elective Option -4 Game Theory and Applications	**3**	**2.6**	**2.6**	**2.5**	**2.2**	**-**	**-**	**3**	**2.2**	**2.8**	**2.2**
SEMESTER -IV	MFED Dissertation	3	3	3	2	3	3	2	2	3	3	2
	MFEC 401 Public Finance and Sustainability	**3**	**2.6**	**2.6**	**2.5**	**2.25**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
	MFEC 402 Strategic Financial Management	**3**	**2.6**	**2.6**	**2.5**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
	PEC- 3&4 Elective Option 1 Business Valuations	**3**	**2.4**	**2.4**	**2.4**	**2.6**	**-**	**-**	**3**	**1.6**	**2.6**	**2.6**
	Elective Option 2 Investment Management	**3**	**2**	**2.4**	**2.4**	**2.6**	**-**	**-**	**3**	**1.8**	**3**	**2**
	Elective Option 3 Behavioural Finance and Engineering	**3**	**2.6**	**2.6**	**2.4**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
	Elective Option 4- International Financial Management	**3**	**2.6**	**2.6**	**2.5**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.8**

Correlation level 1, 2 and 3 as defined below:

"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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MA/MSc. IN FINANCIAL ECONOMICS
Admission Batch: 2023-2024
PROGRAM STRUCTURE AND SYLLABUS

S. No.	Course Code	Title of Paper	Teaching Load				Credits
SEMESTER-I							
			L	**T**	**P**	**TOTAL**	
1.	MFEC -101	Microeconomics	2	1	0	3	3
2.	MFEC 102	Statistics	2	1	0	3	3
3.	MFEC 103	Mathematical Economics	2	1	0	3	3
4.	MFEC 104	Financial Management	2	1	0	3	3
5.	MFEC 105	Financial Institutions and Markets	2	1	0	3	3
6.	GEC 101	**Generic Elective Course –I**	2	1	0	3	3
		TOTAL	**12**	**6**	**0**	**18**	**18**
SEMESTER-II							
			L	**T**	**P**	**TOTAL**	
1.	MFEC 201	Macroeconomics	2	1	0	3	3
2.	MFEC 202	Basic Econometrics	2	1	0	3	3
3.	MFEC 203	Financial Statement Analytics	2	1	0	3	3
4.	MFEC 204	Financial Technology and Computational Finance Using R and Excel	2	1	0	3	3
5.	MFEC 205	Research Methodology	2	1	0	3	3
6.	GEC 201	**Generic Elective Course –II**	2	1	0	3	3
		TOTAL	**12**	**7**	**0**	**18**	**18**
SEMESTER-III							
			L	**T**	**P**	**TOTAL**	
1.	MFECSI	Summer Internship	0	0	6	6	6
2.	MFEC 301	International Trade and Operations	2	1	0	3	3
3.	MFEC 302	Applied Financial Econometrics	2	1	0	3	3
4	MFEC 303	Innovation and Venture Capital	2	1	0	3	3
5	PEC-1	Program Elective Course-I	2	1	0	3	3
6	PEC-2	Program Elective Course-II	2	1	0	3	3
		TOTAL	**10**	**5**	**6**	**21**	**21**
SEMESTER-IV							
			L	**T**	**P**	**TOTAL**	
1.	MFED	Dissertation	0	1	6	6	6
2.	MFEC 401	Public Finance and Sustainability	2	1	0	3	3
3.	MFEC 402	Strategic Financial Management	2	1	0	3	3
4.	PEC-3	Program Elective Course-III	2	1	0	3	3
5.	PEC-4	Program Elective Course-IV	2	1	0	3	3
		TOTAL	**8**	**5**	**6**	**18**	**18**

Note: Students have to select two courses from group A for Semester-III and two courses from group B

for semester-IV as program elective courses. Students will do summer internship during summer gap after second semester and the evaluation will be done in the third semester.

List of Program Elective Courses			
Group-A Choose any two Discipline specific courses as electives from below for semester-III		**Group-B** Choose any two Discipline specific courses as electives from below for semester-IV	
Course Code	Course Name	Course Code	Course Name
PEC 301	Insurance and Risk Management	PEC 401	Business Valuations
PEC 302	Banking Operations and Management	PEC 402	Investment Management
PEC 303	Financial Derivatives	PEC 403	Behavioral Finance and Engineering
PEC 304	Game Theory and Applications	PEC 404	International Financial Management

Semester wise distribution of type of courses					
Types of Course	Semester-I	Semester-II	Semester-III	Semester-IV	Total
Program Core (PC)	5	5	4	3	17
Program Elective(EC)			2	2	04
Generic Elective (GEC)	1	1			02
Total	**6**	**6**	**6**	**5**	**23**

Total Credit Points		
Types of Course	Credit	Total
Program Core (PC)	(15*3)+(2*6)	57
Program Elective(EC)	4*3	12
Generic Elective (GEC)	2*3	6
Total		**75**

Notes:

i. Credit of a course determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.

ii. Students are encouraged to choose value added courses and skill enhancement courses offered by other schools of the university or from MOOCs. However, that will be extra credit and not included in the transcript. Similarly students should engage themselves in different community engagement activities conducted by the university through different conduits.

iii. Following courses can be chosen by the students of PG programs of other schools. However students should see the announcement by the department before commencing the semester regarding list of courses going to be offered in the coming semester.

MFEC 101 Microeconomics
MFEC102 Macroeconomics
MFEC 201Statistics MFEC
202Basic Econometrics MFEC
205Research Methodology
MFEC 301International Trade and Operations
MFEC 401Public Finance and Sustainability

iv. **Generic Elective Courses can be chosen from other Schools**

Sl.No.	Course Name	School Name
1	Excel Modeling and Data Visualization	Birla School of Management
2	Data Analytics in Financial Decision Making	Birla School of Management
3	Business Analytics & Big Data	Birla School of Management
4	Developing Self for Corporate Readiness	Birla School of Management
5	Cloud Computing	Birla School of Management
6	Management Concepts & Practices	Birla School of Management
7	Design Thinking & Entrepreneurship	Birla School of Management

Note: The above list is suggestive. However, students can choose any other courses offered by other schools in semester I and II.

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SYLLABUS
Semester-I

Course Name	Microeconomics	
Course Code	MFEC 101	
Course Credit	3	
Course Type	Program Core	
Semester	I	
Course Objective	**The objectives of this course are:** • To enhance students" knowledge about the function of effective market through demand and supply theory. • To develop students" aptitude for the implications of different companies" product positioning strategy. • To encourage students with the ability to critically analyze production and market strategies of firms in various industry. • To promote skill of analytical tools in understanding micro-economic fundamentals.	
Course Outcome (CO)	**Upon successful completion of the course a student will be able:** CO1: Understand the theoretical concepts of microeconomics CO2: Analyze the economics problems of firms for rational Decision makings. CO3: Apply the economic skill for financial and economic problems CO4: Evaluate real time problems and take decisions using game theory technique for effective business strategy. CO5: Develop skill and approach for analyzing micro economic issues	
Pre-Requisite	None	

Course Outline	Description	CO Mapping
	Module I: Introduction to Microeconomics Demand forecasting, Consumer choice and preferences, Indifference Theory, Elasticity of demand, Price, income and cross elasticity	CO1
	Module II: Behavior of Firms and Industry Production and Cost structure of firms: Fixed and variable inputs; production function; total, average and marginal products; Production-possibility frontier, long run, and short run costs of production; Economies of scale and the shape of the long run average cost.	CO2

		Module III: Market Competition and Profit Maximization Forms of market structures: Perfect Competition, Equilibrium of the firm and the industry in the short and the long runs. Monopoly Market Structure, Comparison of pure competition and monopoly, Monopolistic Competition and Oligopoly.	CO3
		Module IV: Welfare Economics Arrow-Debreu economy, welfare theorems, existence of Walrasian equilibrium, fixed-point theorem, core and core convergence, general equilibrium with time and uncertainty, Jensen"s Inequality, social welfare function, transfer efficiency; Kaldor-Hicks-Samuelson criterion, Rawl"s theory of social justice.	CO1,CO2
		Module V: Game theory and Information Asymmetry Theory of games and definition; Types of Game and Strategy; Two-person zero sum game; Non-Zero Sum Game; Sequential move games, Repeated games ; Prisoner's Dilemma; Asymmetric Information; Moral hazard problem, adverse selection, theory of lemon.	CO5,CO4
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks **End-Term Evaluation** : 60 marks	
Suggested Readings:		**Text books:** • A Koutsoyiannis. The Modern Micro Economics. The Macmillian Press. **Reference Books:** • Mankiw, G. (2019), Principles of Microeconomics, 6th Edition, Cengage. • Varian, H. R., Microeconomic Analysis, third edition, W.W. Norton and Co., 1992. • Jehle, Geoffrey, and Philip Reny (2010). Advanced microeconomic theory. Pearson; 3rd edition (22 December 2010) Pearson Education India.	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for	Case analysis, Exercise and Presentation	4

No.	CO					
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3		
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5		
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5		

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO 1	PSO2	PSO3	PSO4
	CO101.1	2	2	2	1	1	-	-	3	2	3	3
	CO101.2	3	2	2	1	1	-	-	3	3	3	3
	CO101.3	3	1	2	1	1	-	-	3	2	3	2
	CO101.4	3	1	1	1	1	-	-	3	2	3	3
MFEC101 Micro Economics	CO101.5	3	1	1	1	1	-	-	3	2	3	3
	CO101 (Average of non-zero entry)	2.8	1.4	1.6	1	1	-	-	3	2.2	3	2.8

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Statistics
Course Code		**MFEC 102**
Course Credit		**3**
Type of Course		**Program Core**
Semester		**I**
Course Level Goals		**The objectives of this course are:** • To enhance students" knowledge about the function of effective operation in organization. • To use data to make informed decisions in the modern business world. • To provide strong connections between statistical and resource optimization concepts and the problems students will face in their future careers • To find patterns, create Statistical models from the data analyse and deliver findings to an audience
Course Outcome (CO)		**At the end of the course students will be able to:** CO1: Understand statistical techniques. CO2: Apply statistical tools and techniques to business/economic Decision situation. CO3: Analyze statistical facts and information CO4: Evaluate data and results CO5: Design and develop statistical report
Pre-Requisite		Basic knowledge of Maths and Statistics

Course Outline		Description	CO Mapping
		Module I: Introduction to Description Statistics Measures of Central tendency, Measures of Dispersion, Skewness & Kurtosis	CO1
		Module II: Probability & Probability Distribution Permutation and Combination, Probability: Basic Terminology, Types of Probability, Probability rules- Addition & Multiplication Rule, Conditional Probability, Baye's Theorem, Concepts of random variable, Theory of Expectation, Probability Distributions: Binomial, Poisson & Normal	CO2
		Module III: Sampling & Sampling Distributions Concepts & types of sampling, Sampling Distribution of Mean & Proportion	CO3

| | | Module IV: Statistical Inference
Theory of Estimation: Point & Interval Estimation, Hypothesis testing: one sample and two sample tests for means and proportions of large samples (z-test), one sample and two sample tests for means of small samples (t-test), F-test for two sample standard deviations. Chi-square test for single sample standard deviation. Chi-square tests for independence of attributes and goodness of fit & ANOVA. | CO4 |
| | | Module V: Measures of Association & Time Series
Correlation and Regression Analysis: Simple & Multiple.
Time series analysis: Components in time series, trend analysis. | CO4, CO5 |
| **Evaluation** | | **Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks
End-Term Evaluation : 60 marks | |
| **References** | | **Text Books**:
1. Statistics for Managers- Richard I. Levin , David S. Rubin, Sanjay Rastogi , M.H. Siddiqui , 9th Edition, Pearson, New Delhi, 2021
Other Readings:
1. Statistics for Business and Economics - Anderson, Sweeney and Williams, 12th Edition, Pearson, New Delhi, 2020
2. Business Statistics – Azcel and Soundarapandian – 8th Edition, TMH
   Business Statistics - Ken Black , 7th Edition, Wiley, New Delhi, 2016
3. Statistics for Management & Economics - Gerald Keller, 10th Edition, Cengage Learning, New Delhi, 2020 | |

Facilitating the achievement of Course Learning Outcomes

Module No.	Course Intended Learning Outcomes (CILO)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO 1	Lecture, role play and discussion through Case- lets and Cases	Small group exercises, case analysis	2
2.	CO 2	Classroom discussion and group activity based on the areas to solve issues.	Case analysis and Presentation	3
3.	CO 3	Lecture, Case analysis	Case analysis and situational games	3

4.	CO 4	Lecture, discussion, case studies, presentation	Assignment and activity	4
5.	CO5	Case studies and discussion	Project Presentation and question answer	5

CO , PO & PSO MAPPING:

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	1	2	3	1	1	-	-	3	2	3	2
CO 2	3	2	3	1	1	-	-	3	1	3	2
CO 3	1	2	3	1	1	-	-	3	2	3	2
CO 4	3	2	3	1	1	-	-	3	1	3	2

Correlation level: "1" – Slight (Low) **"2" –** Moderate (Medium) **"3" –** Substantial (High) **"-" –** No correlation

Course Name		Mathematical Economics
Course Code		MFEC 103
Course Credit		3
Type of Course		Program Core
Semester		I
Course Objective		**The main objectives of the course are:** • To familiarize the students on use of mathematical techniques and operations in economics • To initiate students into various economic and financial concepts which are acquiescent to mathematical treatment? • To develop a comprehensive set of tools and techniques for analyzing various forms of economic and financial problems with mathematical model • To focus on applications of mathematical techniques in the field of applied economics and financial.
Course Outcome (CO)		**Upon successful completion of the course a student will be able :** CO1: To Exhibit a sound understanding of mathematical techniques applicable in financial and economic perspective. CO2: To Apply the relevant mathematical tools and techniques for analyzing economics and financial problems. CO3: To Analyze economic and financial problems in mathematical form. CO4: Evaluate the outcome of various economic and financial decisions empirically. CO5: Design mathematical model for interpreting economic and financial issues
Pre-Requisite		Basic Knowledge of economics and mathematics.
Course Outline		Description	CO Mapping

		Description	CO Mapping
		Module I :Elements of Linear Algebra A Matrix; Matrix Operations: Addition, Subtraction, Scalar Multiplication and Multiplication; Laws of Matrix Algebra: Commutative, Associative and Distributive; Matrix expression of a System of Linear Equations; Determinants; Rank of a Matrix; Minors, Cofactors, Adjoint and Inverse Matrices; Laplace Expansion; Solving Linear Equations with the Inverse; Cramer‴s Rule for Matrix Solutions; Input-Output Analysis using Matrices.	CO1, CO2

		Module II :Differential Calculus: Single and Multiple independent Variable Functions the Derivative; Rules of Differentiation; Higher-order Derivatives; Optimization; Uses of the Derivatives in Economics: Increasing and Decreasing Functions, Concavity and Convexity, Inflection points, Optimization of Economic Functions, Relationship among Total, Marginal and Average Concepts. Multivariable Functions and Partial Derivatives; Rules of Partial Differentiation; Second and Higher-order differentials; Optimization; Constrained optimization with Lagrange Multipliers; Implicit functions; Application of Partial Derivatives in Economics: Utility Maximization, Marginal Productivity, Elasticity, Producers Equilibrium.	CO2,CO3
		Module III : Differential Calculus: Exponential and Logarithmic Functions Exponential and Logarithmic Functions; Solving Natural Exponential and Logarithmic Functions; Logarithmic transformation of Nonlinear Functions; Rules of Differentiation; Higher-order Derivatives, Partial Derivatives; Optimisation of Exponential and Logarithmic Functions; Logarithmic differentiation; Application in Economics: Elasticity, Alternative measures of growth, Optimal Timing, Derivation of Cobb Douglas Production Function.	CO2,CO3
		Module IV : Integration Integration; Indefinite and Definite Integral; Riemann integral; Numerical methods of evaluating the integral; Fundamental Theorem of the Calculus; Rules of Integration; Integration by substitution; Integration by Parts; Area between Curves; Improper Integrals; L‟Hôpital‟s Rule. Areas under curve-Definite and indefinite Integration, Application- Consumer Surplus and Producer Surplus.	CO2,CO3
		Module V : Difference and Differential Equations and Economic Applications First order linear difference equations- Second order difference equations First order differential equations- Second order differential equations Application: Cobweb Market Model, Dynamic stability of Market price	CO5,CO4
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks **End-Term Evaluation** : 60 marks	
Suggested Readings:		**Text Books**: • Bradley, T. (2013). *Essential Mathematics for Economics and Business*. London: John Wiley & Sons.	

- Dowling, E. T. (2012). *Schaum's Outlines-Introduction to Mathematical Economics.* (3rd ed.). New York: McGraw Hill.

Reference Books:
- Chiang, A.C. & Wainwright, K. (2013). *Fundamental Methods of Mathematical Economics*. (4th ed.). McGraw Hill Education (India) Private Limited.
- Roser, M. (2003). *Basic Mathematics for Economists*. (2nd ed.). New York: Routledge.
- Sydsaeter, K. & Hammond, P. (2016). *Mathematics for Economic Analysis*. New Delhi: Pearson Education Inc.

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	4

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
MFEC103 Mathematical Economics	**CO103.1**	2	2	1	1	1	-	-	3	2	3	1
	CO103.2	2	2	1	1	1	-	-	3	3	2	1
	CO103.3	3	1	1	1	1	-	-	3	2	3	3
	CO103.4	3	1	1	1	1	-	-	3	3	3	3
	CO103.5	3	1	1	1	1	-	-	3	3	3	3
	CO103 (Average of non-zero entry)	**2.6**	**1.4**	**1**	**1**	**1**	**-**	**-**	**3**	**2.6**	**2.8**	**2.2**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Financial Management
Course Code		MFEC 104
Course Credit		3
Type of Course		Core Course
Semester		I
Course Objectives		**The objectives of the course are:** • To develop an in-depth understanding of vital issues in corporate finances theory and practice. • To understand financial management and its applications in the real world. • To evaluate how four financial decisions (Financing, Investing, Dividend and Liquidity Decisions) affects firms financial Performance.
Course Outcome (CO)		**After undergoing the course, a student will be able:** CO1: To understand the concept of Financial Management and its applicability in Managerial Decisions and Corporate Capital Structure CO2: To develop importance of Time Value of Money in Financial Decision-Making Process. CO3: To apply financing options available to firms, Tradeoff between debt and equity and Criteria for deciding the optimal financing mix so as to have a significant impact on Investment Decision. CO4: To analyze factors important to take appropriate dividend and liquidity decisions of firms. CO5: To design strategies related to four finance decisions for effective utilizations of firms" financial resources.
Pre-Requisite		Basics of Accounting
Course Outline		**Description**	**CO Mapping**

		Description	CO Mapping
		Module I- Introduction Financial Management Introduction to Corporate Finance, Sources of Finance, Profit Maximization VS Wealth Maximizations, Time Value of Money.	CO1
		Module II- Investment Decision Capital Budgeting, Capital Budgeting Decisions, Project Acceptance and Rejection Criteria, Capital Rationing	CO1, CO2
		Module III- Financing Decision Financing Decision Leverage Analysis, Financing Decision EBIT EPS Analysis, Capital Structure Theories, Cost of Capital	CO3
		Module IV Dividend Decision Dividend theory, Dividend Policy, Determinants of Dividend policy Dividend Theories of relevance (Walter and Gordon) and irrelevance	CO4

		Module V Liquidity Decision Working Capital Planning and Management & Estimations, Management of Cash, Management of Receivables, Inventory Management	CO4, CO5
Evaluation		Internal Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project, Mid Term): 40 marks End-Term Evaluation: 60 marks	
Suggested Readings		**Text Books:** • Pandey IM (2018) ,*Financial Management*, 11ᵗʰ Edition, Vikash Publishing **Reference Books** • Chandra Prasanna, (2019), *"Financial Management"*,10ᵗʰ Edition • Ross, Westerfield, Jaffe, Kakani (2017) *Corporate Finance*: 11ᵗʰ Edition, Tata Mcgraw-Hill.	

Facilitating the achievement of Course Learning Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Concept questions and Quiz	2
2.	CO2	Lecture, presentation and activity.	Problem-based learning, Numerical questions, Critical Thinking exercise, Case Lets and Case studies, Quiz,	3
3.	CO3	Lecture, Case analysis Understanding the theories of capital structure, Designing the capital structure for companies, EBIT/EPS understanding, Types of Leverage.	Real life understanding of capital structure of companies, Practical exercises, Student presentations, Class discussions to encourage students to participate and think, annual report of companies, selected web sites.	4
4.	CO4	Lecture, discussion, case studies, presentation Factors determining dividend decisions of companies, Theories	Getting information on dividend policy of companies across sectors, how companies decide the trade-off on dividend	4

		and forms of dividends	policy, Critical thinking exercises, Small group activities, Project work	
5.	CO5	Lecture, Case studies and discussion	Presentation	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO203.1	2	2	2	1	1	-	-	3	2	3	2
	CO203.2	2	2	3	3	1	-	-	3	1	3	2
	CO203.3	2	3	2	2	1	-	-	3	2	2	3
	CO203.4	2	3	3	3	1	-	-	3	3	3	2
MFEC203 Financial Management	CO203.5	2	2	3	3	1	-	-	3	1	3	2
	CO203 (Average of non-zero entry)	**2**	**2.4**	**2.6**	**2.4**	**1**	**-**	**-**	**3**	**1.8**	**2.8**	**2.2**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Financial Institutions and Market
Course Code		**MFEC 105**
Course Credit		3
Type of Course		**Program Core**
Semester		I
Aims and Objectives		To equip students with an understanding of the financial system, its constituents, the principles on which it operates, inter linkages, regulatory concerns, and implications for society & policy formulation
Course Outcome		After doing this course, students should be able to: **CO1**: Understand the working of financial institutions and markets both individually and as an interlinked system. **CO2**: Understand the organization, role, functioning and need for regulation of different types of financial markets and the implications of the same on society. **CO3**: Understand the organization, role, functioning and need for regulation of different types of non-depository institutions like mutual funds, pension funds, insurance, venture capital, private equity and hedge funds and the implications of the same on society. **CO4**: Critically analyze the pivotal role of banking in a financial system and the reasons for it being among the most tightly regulated industries in the world. **CO5**: Understand the impediments to financial inclusion and critically evaluate different ways of developing sustainable financial inclusion. Also critically analyse the working of the micro finance industry.
Pre-Requisite		None

Course Outline		**Description**	**CO Mapping**
		Module I: Introduction: Overview of financial markets and financial instruments; Role of financial institutions, depository and non-depository institutions; Consolidation & competition among financial institutions; Financial conglomerates.Overview of the Indian financial system including financial sector reforms; Other contemporary issues in finance.	CO1
		Module II: Financial Markets: Money markets- organization, economic role, instruments & regulation; Capital Markets- Primary & secondary markets and their organization; Different types of market structures, short selling and its implications, buying on margin; Stock market indicators, their methods of computation and implications of the same; Security market regulation and stability.	CO2

		Module III: Non-Depository Institutions: Mutual Funds- Types of mutual funds schemes, ETFs, Expenses associated with mutual funds; An overview of Indian Mutual Funds Industry; Hedge funds, venture capital funds, private equity funds and regulation. Pension Funds, National Pension System.Insurance, Regulation	CO3
		Module IV : Banking: An overview of the banking industry; Balance sheet of a bank; Sources & uses of funds of banks, fee based & off balance sheet activities; Securitization; Bank earnings & bank performance, investment banking; Bank failure & regulation; Reasons for banks being heavily regulated, bank run, deposit insurance, capital adequacy regulation and a critique of the Basel norms, bank examination etc; The problem of moral hazard & too big to fail institutions; RBI and its policy evolution.	CO4, CO5
		Module V:Financial Inclusion: Concept of financial inclusion; Challenges involved in measuring financial inclusion; Impediments to financial inclusion; Role of financial inclusion in reducing poverty and income inequality, evidence-based examples of policies to support healthy and sustainable financial inclusion. Micro finance and its relevance; Challenges faced by the micro finance industry; Change in the sources of funding of the micro finance institutions; Critical evaluation of the working of the micro finance industry, the problem of mission drift.	CO5
Evaluation		▪ Internal Assessment - 40 % ▪ End Semester Assessment- 60 %	
References		**Text Book** 1. Kidwell, D., Blackwell, D., Whidbee, D. &Sias, R. (2016). *Financial Institutions Markets and Money*.Wiley. *Unit(s)- III and V* 2. Kohn, M. (2004). *Financial Institutions and Markets*. Oxford University Press. *Unit(s)-IV* Reference 3. Madura, J. (2014). *Financial Markets and Institutions*. Cengage. *Unit(s)- I, II and IV* 4. Mishkin, F.S. (2015). *The Economics of Money Banking and Financial Markets*. Pearson. 5. *Unit(s)- II* 6. Mohan, R. & Ray, P. (2017). *Indian Financial Sector: Structure, Trends and Turns*. IMF Working Papers. *Unit(s)-I* 7. Patil, R.H. (2006). *Current State of the Indian Capital Market*. Economic and Political Weekly. *Unit(s)- III* 8. RamMohan, T.T. (2016). *Public Sector Banks Are Adrift*. Economic and Political Weekly. *Report on Trend and Progress of Banking in India.* 9. 10. Adams, D. &Vogel, R.(2014).*Microfinance approaching*	

		middle age. Enterprise Development and Microfinance. *Unit(s) - VI*
11.	*Annual Report*. Insurance Regulatory and Development Authority. *Unit(s)-IV*
12.	*Annual Report*. Pension Fund Regulatory and Development Authority. *Unit(s)-IV*
13.	*Annual Report*. Securities and Exchange Board of India. *Unit(s)-IV*
14.	Demirguc-Kunt, A. (2014). *Presidential Address: Financial Inclusion*. Atlantic Economic Journal. *Unit(s)- VI*
15.	Fabozzi, F., Modigliani, F. & Jones, F. (2013).*Foundations of Financial Markets and Institutions*. Pearson. *Unit(s)- III*

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
MFEC204 Financial Technology	CO204.1	1	1	2	1	1	-	-	3	3	2	3
	CO204.2	2	3	3	1	1	-	-	3	3	2	3
	CO204.3	2	1	1	1	1	-	-	3	3	2	2
	CO204.4	3	1	1	1	1	-	-	3	3	2	3
	CO204.5	3	1	1	1	1	-	-	3	3	2	3
	CO204 (Average of non-zero entry)	2.2	1.4	1.6	1	1	-	-	3	3	2	2.8

Correlation level 1, 2 and 3 as defined below:

"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name	Excel Modeling and Data Visualization	
Course Code	GEC 101	
Course Credit	3	
Type of Course	Generic Elective	
Semester	I	
Course Objectives	**The objectives of the course are to :** • Excel modeling in different areas; and • Hands-on Activities on different types of modeling • Employ best practices in data visualization to develop charts, maps, tables, and other • Visual representations of data. • Data Visualization using Excel, Power BI, Tableau	
Course Outcome (CO)	**After undergoing the course, a student will be able to:** CO1: Understand data management in Excel CO2: Apply excel based models & techniques in Business and Financial Economics applications. CO3: Analyze and develop necessary critical thinking skills/ functions in order to apply appropriate models in excel. CO4: Evaluate and visualize output trough a real life situational problem. CO5: Develop necessary critical thinking skills/ functions in order to apply appropriate models in excel.	
Pre-Requisite	Basic knowledge of Excel and Subject knowledge	
Course Outline	**Description**	**CO Mapping**
	Module- I : Data Management using Excel Understanding of data, types, data processing. Use of logical, mathematical, statistical, and string functions, Sorting, Filtering, data validation, Freezing row, column. Protecting and Locking of excel sheet, and cell, Data formatting, and Data visualization	CO1
	Module- II :Macro and Pivot table in Excel Pivot Table, Vlookup, Hlookup, Name Range, Conditional Formatting, Macros, Dash Board, Using Excel inbuilt functions and user defined formula to for data analysis, Excel Data Analysis Toolpack, Solver, Creating and customizing charts in excel for data visualization	CO2
	Module-III : Excel Modeling Present Value, Future Value, NPV, IRR Calculation, PMT Calculation, and Optimization Modeling using Excel (LPP, Transportation, and Assignment problems), Markov Chain Model of Customer Value, and Market Segmentation using Cluster Analysis.	CO3

Module-IV: Data Visualization using Microsoft Power BI Understanding Power BI Interface and Power BI Variants i.e. Power BI Desktop and Web, Power BI for visualization, Reporting / Dashboarding, Publishing dashboards, Relationships and queries , Data Transformations in power BI	CO3 and CO4
Module-V: Data Visualization using Tableau Introduction to Tableau, Data visualization using Tableau, Visual Analytics using Tableau, Dashboard development, Design principles, Interactivity, Connected "drill-down" dashboards Practical Case Study: Algorithm-based macros for MS Excel in Economics Topic 1: Elasticity of Demand & Supply Topic 2: Cost and Revenue Functions Topic 3: Market Forms (Monopoly) Topic 4: Business Trend Forecasting Communication- Simple Spread sheet for Job Search & Data Graphics for Report Keeping job search on track on simple spread sheet that will include Position applied, name of the company, a link to the job application, date applied, status column, track application progress, interview details, communication tracker, type of resume. Communicating quantitative information using graphics, type of graphic aids for reports, Bar Chart, Line Chart, Maps, Flow Charts, Gnatt chart, Table, Flowchart, Positioning graphics in the text, Mind mapping diagram for organising information.	CO4 and CO5

Evaluation	**Continuous Evaluation** (Presentation, Assignments, Case Study, , Short Term Project): 40 marks
	End-Term Evaluation : 60 marks
Suggested Readings:	**Text Books** • Salvatore, D. and Rastogi, S.(2020), *Managerial Economics: Principles and Worldwide Applications*, 9th edition , Oxford Higher Education • Kotler, Keller (2016): *Marketing Management* (14th ed.)Pearson Education **Reference Books:** • Mankiw, G. (2019), *Principles of Microeconomics*, 6th Edition, Cengage • Ramaswamy, V.S.,& Namakumari, S.,(2013),*Marketing Management India*,(5th Edition) Macmillan Publication.

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Blooms Taxonomy Level
1	CO1	Frameworks of Models through the unstructured problem. Small cases, problem-solving, laboratory sessions	Quiz, Assignments, Minor project, Hands-On test, Written-test	2,5,3
2	CO2	Frameworks of Models through the unstructured problem. Small cases, problem-solving, laboratory sessions	Quiz, Assignments, Minor project, Hands-On test, Written-test	2,5,3
3	CO3	Problem-solving, laboratory sessions	Quiz, Assignments, Minor project, Hands-On test, Written-test	5,5,3
4	CO4	Frameworks of Models through the unstructured problem. Problem-solving, Oral and Written Presentations	Quiz, Assignments, Minor project, Hands-On test, Written-test	5,5,3
5	CO5	Problem-solving, laboratory sessions, Oral and Written Presentations	Quiz, Assignments, Minor project, Hands-On test, Presentation	5,5,3

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO 1	PO 2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
GEC 101 Excel Modeling and Data Visualization	GEC101.1	2	2	2	1	1	-	-	3	2	3	2
	GEC101.2	2	2	3	3	1	-	-	3	1	3	1
	GEC101.3	2	3	2	2	1	-	-	3	2	2	2
	GEC101.4	2	3	3	3	1	-	-	3	3	3	3

GEC101.5	2	3	2	3	1	-	-	3	2	3	3
GEC101 (Average of non-zero entry)	**2**	**2.6**	**2.6**	**2.4**	**1**	**-**	**-**	**3**	**2**	**2.8**	**2.2**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Semester-II

Course Name		Macroeconomics	
Course Code		MFEC201	
Course Credit		3	
Type of Course		Program Core	
Semester		II	
Course Objective		**The objectives of this course are:** • To introduce the students various macroeconomic aggregates and accounting methodologies. • To sensitize students to examine the linkages between dynamics of financial markets and the real economy. • To equip students with the ability to critically evaluate the macroeconomic policy options and implications for macroeconomic growth and development. • To develop skill and idea for modeling with macroeconomic factors.	
Course Outcome (CO)		**Upon successful completion of the course a student will be able to:** CO1: Understand and interpret macroeconomic aggregates such as output, unemployment, inflation, productivity, saving, investment etc. CO2: Apply the macroeconomic concepts for policy evaluation and financial decision. CO3: Analyze the linkages between financial market and macroeconomic policies over different time horizons of business cycle. CO4: Evaluate casual linkages in short run and long run term growth fluctuations. CO5: Develop skill and approach for analyzing macro-economic issues	
Pre-Requisite		None	
Course Outline		Description	CO Mapping
		Module I: National Income Accounting and Macroeconomic Indicators Methods of national income accounting: Income and Expenditure method, Gross Domestic Product, the Circular Flow of income and expenditure, Real GDP Vs Nominal GDP, The GDP Deflator, Chain-Weighted Measures of Real GDP; Inflation; WPI, CPI and GDP deflator, GDP Vs GNP, The Unemployment Rate, The Household Survey, The Establishment Survey (NSSO). The Indian macro-economic scenario.	CO1

		Module II: Aggregate Demand and Supply The Goods Market: The Keynesian Cross; Interest Rate, Investment, and the IS Curve; Fiscal Policy Shifts the IS Curve; The Money Market: Income, Money Demand, and the LM Curve, Application of IS–LM Model, Aggregate Supply and the Short-Run Trade-off Between Inflation and Unemployment, The Sticky-Price Model, The Imperfect-Information Model; Inflation, Unemployment, and the Phillips Curve; The Short-Run Trade-off Between Inflation and Unemployment; Inflation targeting; Dynamic Model of Aggregate Demand and Aggregate Supply, Business Cycle and fluctuations	CO2
		Module III: Consumption, Saving and Investment Aggregate consumption - Absolute, Relative, Life cycle and Permanent income hypothesis- Robert Hall and Random Walk Hypothesis- Non-income factors affecting consumption-The MPS model, The wealth effect in the static model, The present value criterion for investment-The marginal efficiency of investment, The accelerator principle and stabilization policy-The rental cost of capital and investment-Tobin"s q theory of investment.	CO3
		Module IV: The External Sector equilibrium The current account and product market equilibrium- The capital account and balance of payments equilibrium-Balance of payment adjustment and the LM curve- The Mundell-Fleming model- The expenditure changing policies- The expenditure switching policy: Devaluation- Monetary approach to Balance of payment adjustments; Growth model and technical progress.	CO1,CO 2
		Module V: Macroeconomic Policy Debates: Monetary and Fiscal instruments, The mechanism of expansionary and contractionary policy, Role of central Bank: Money supply ,money multiplier, Tax rate changes and the budget deficit-Fiscal stimulus and deficit financing- crowding out and crowding in controversy- Quantitative easing policies-macroeconomic policies in advanced and emerging economies; fiscal deficit and deficit financing.	CO5,CO 4
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks **End-Term Evaluation** : 60 marks	
Suggested Readings:		**Text books:** • N.Gregory Mankiw(2022). Macroeconomics.9th Edition.Worth Publisher • D.N. Dwivedi. (2022). Macroeconomics:Theory and Policy. 5th Edition, Tata Mc Graw Hill Education. • Romer, D. (2012). Advanced Macroeconomics, McGraw-	

Hill; Fouth edition (29 April 2019) New York: McGraw-Hill

Reference Books:
- Rudiger Dornbusch, Stanley Fischer and Richard Startz,Macroeconomics(2018) ,12th edition McGraw Hill Education; Twelfth edition
- William.H.Branson (2005). Macroeconomic Theory and Policy, Third Edition, All India Traveller Book Seller Publishers, New Delhi.
- Vivek Moorthy. (2020) Applied Macroeconomics: Employment,Growth and Inflation.1st Edition, I K International Publishing House Pvt. Ltd

Reports:
- Economic Survey Published by Ministry of Finance, Govt. of India
- Annual Budget published by Ministry of Finance, Govt. of India
- Quarterly Reports published by Reserve Bank of India and International Monetary Fund

Other Materials: Case studies and published articles will be shared in the class from time to time

Facilitating the achievement of Course Learning Outcomes

Module No.	Course Intended Learning Outcomes (CILO)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
4.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering

Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO 3	PSO 4
	CO102.1	2	1	1	1	1	-	-	3	2	3	3
	CO102.2	2	2	2	1	1	-	-	3	3	3	2
	CO102.3	3	1	1	1	1	-	-	3	2	3	2
	CO102.4	3	1	1	1	1	-	-	3	3	3	3
MFEC201 Macro Economics	CO102.5	3	1	1	1	1	-	-	3	3	3	3
	CO102 (Average of non-zero entry)	2.6	1.2	1.2	1	1	-	-	3	2.6	3	2.6

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Basic Econometrics
Course Code		MFEC 202
Course Credit		3
Type of Course		Program Core
Semester		II
Course Objective		The objective of the course mainly To discusses the measurement of economic relationships and forecast the economic variables. To improve the students" abilities on formulation and specifications of econometric models, estimating and testing of the models. To use of such models in economics and other related fields. The practical data set will be used for their hand on exercise.
Course Outcome (CO)		At the end of the course students will be able to: CO1: Understand Basic econometric techniques CO2: Apply various basic econometrics models in economics and financial issue CO3: Analyse simple economic issue with empirical investigation CO4: Evaluate the outcome of various economic and financial decision empirically CO5: Develop econometric concepts and interpretation
Pre-Requisite		Basic knowledge of economics, mathematics and statistics

Course Outline		Description	CO Mapping
		Module I: Meaning and Scope of Econometrics Meaning and Scope; Difference between Mathematical and Econometric Model; Regression Vs Causation; Endogenous and Exogenous Variables; Nature and Sources of Data; Significance of Stochastic Term; Applications of Econometrics in Economics	CO1
		Module II: Linear Regression Model Two variable linear regression model – its Assumptions, Estimation of Parameter; Properties of Estimators- Gauss Markov Theorem; Inference about the Parameters; Analysis of Variance, Prediction Module	CO1, CO2
		Module III: Multi Variables Regression Analysis The K- Variable LRM- Matrix Approach to LRM – its Assumptions, Estimation of Parameter; Properties of Estimators- Gauss Markov Theorem; Inference about the Parameters; Analysis of Variance, Prediction; Coefficient of Determination; Adjusted coefficient of Determination; Polynomial Regression Model	CO3

		Module IV: Relaxing the Assumptions of The Classical Linear Regression Model Multicollinearity - Nature, detection, consequences and remedy, Specification Bias, Heteroscedasicity- Consequences, detection and remedy; Generalized Least square and weighted least square estimation; Autocorrelation: Detection, Consequences and remedy	CO1, CO2
		Module V: Dummy Variable Models Estimation; testing the structural stability of regression models; Interaction effects; Seasonal analysis; Piecewise Linear regression	CO4, CO5
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks **End-Term Evaluation** : 60 marks	
References		**Text Books**: 1. D. N. Gujarati, D. C. Porter, S. Gunasekar (2017); Basic Econometrics, Mcgraw; 5th edition. 2. Greene, W.H. (2000); Econometric Analysis, 4th edition, Prantice Hall. 6. J. M. Wooldridge (2019); Introductory Econometrics: A Modern Approach, Cengage Learning; 7 edition. 3. Jay L. Devore (2010); Probability and Statistics for Engineers, Cengage Learning. 4. Jeffrey Wooldridge (2019). Introductory Econometrics: A Modern Approach. South-Western College Publishing; 7th edition (4 January 2019) **Other Readings**: 1. Statistics for Business and Economics - Anderson, Sweeney John E. Freund (1992); Mathematical Statistics, Prentice Hall. 2. 9. Johnstone, J.(1994); Econometrics Methods, 3rd Edition, McGraw Hill, New York. 3. 10. Koutsoyiannis, A. The Theory of Econometrics, 2nd Edition, ESLB.	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for	Case analysis, Exercise and Presentation	4

		short term projects to be given.		
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	1
5 .	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO202.1	2	1	1	1	1	-	-	3	2	3	2
	CO202.2	2	1	2	1	1	-	-	3	3	3	2
	CO202.3	3	1	2	1	1	-	-	3	2	3	2
	CO202.4	3	1	2	1	1	-	-	3	3	2	3
	CO202.5	3	1	2	1	1	-	-	3	3	2	3
MFEC202 Basic Econometrics	**CO202 (Average of non-zero entry)**	**2.4**	**1**	**1.8**	**1**	**1**	**-**	**-**	**3**	**2.6**	**2.6**	**2.4**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Financial Statement Analytics
Course Code		MFEC 203
Course Credit		3
Type of Course		Program Core
Semester		II
Course Objectives		**The objectives of the course are:** • To understand the financial statements of Companies. • To gain ability to apply financial models using MS-Excel in analyzing the Financial Statements of Companies. • To familiarize to apply principles with recent developments in the area of financial reporting. • To project future financial statements applying scenario analysis.
Course Outcome (CO)		**At the end of this course, participants would be able to:** CO1: Understand the Financial Statements of Companies. CO2: Apply skill to Analyse and Interpret financial statements. CO3: Analyse financial modelling techniques so as to make accurate financial forecasting. CO4: Evaluating risk associated with Financial Forecasting CO5: To design strategies related to four finance decisions for effective utilizations of firms financial resources.
Pre-Requisite		Financial Management

Course Outline		Description	CO Mapping
		Module I- Introduction to Financial Statements Profit & Loss Account, Balance Sheet, Cash flow Statement.	CO1
		Module II- Analysis of Financial Statements Tools and Techniques for Financial Statement Analysis- Ratio Analysis, Comparative Statement Analysis, Common Size Statement Analysis, DuPont Analysis, Z Scores, Piotroski Score Analysis	CO2
		Module III- Excel for Financial Modeling Excel formula functions, Advanced Modeling Techniques, Data Analysis, Vlookups and Pivot Table.	CO3
		Module IV- Financial Forecasting Projection of Profit and Loss Account, Balance Sheet and Cash flows Statement. Scenario and Sensitivity Analysis.	CO4
		Module V – Financial Report and Risk Analysis Analysis of Annual Report, Business Combinations, Consolidated & Standalone Reports and Risk Associated with Financial Projections	CO4,CO5
Evaluation		Internal Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project, Mid Term): 40 marks End-Term Evaluation: 60 marks

Suggested Readings		**Text Book** • Penman, S (2007): ***"Financial Statement Analysis & Security Valuation"***, 3rd edition Tata McGraw-Hill, • Pandey IM (2018) ,***Financial Management***, 11th Edition, Vikash Publishing **Reference Books** • Damodaran, A (2006) ***"Damodaran on Valuation"***, 2nd Edition, Wiley India, New Delhi • Palepu, et al (2007): **"Financial Statement Analysis and Business Valuation"**, 3rd edition Cengage Publications, New Delhi, • Wild, et al (2007) **"Financial Statement Analysis"**, 9th edition Tata McGraw-Hill, New Delhi

Facilitating the achievement of Course Outcomes

Module No.	Course Intended Learning Outcomes (CILO)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lectures, discussion and Case Studies	Problem solving and concept questions, class room exercises, Case lets and project work	2
2.	CO2	. Lectures, discussion, Case Studies, Problem Solving and Spreadsheet modeling	Short quiz consisting of numerical problems. In-class problem solving. Preparation of Spreadsheet models	3
3.	CO3	Lecturing & Discussion, Problem Solving and Spreadsheet modeling	Short quiz consisting of numerical problems. In-class problem solving. Preparation of Spreadsheet models	3
4.	CO4	Lecturing & Discussion, Problem Solving and Spreadsheet modelling	Short quiz consisting of numerical problems. In-class problem solving. Preparation of Spreadsheet models	3
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	4

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding

Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
MFEC104 Financial Statement Analysis & Modeling	CO104.1	2	2	2	1	1	-	-	3	2	3	2
	CO104.2	2	2	3	3	1	-	-	3	1	3	2
	CO104.3	2	3	2	2	1	-	-	3	2	2	2
	CO104.4	2	3	3	3	1	-	-	3	3	3	2
	CO104.5	2	3	3	3	1	-	-	3	3	3	2
	CO104 (Average of non-zero entry)	2	2.6	2.6	2.4	1	-	-	3	2.2	2.8	2

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		**Financial Technology and Computational Finance Using R and Excel**
Course Code		**MFEC-204**
Course Credit		3
Type of Course		**Core Course**
Semester		**II**
Course Objectives		The objectives of the course are: • To develop an in-depth understanding of the major areas in Fin-Tech, including money, payment, digital finance and alternative finance. • To understand the major technological trend in financial applications in the real world including crypto currencies, block chain, artificial intelligence and big data. • To evaluate the fundamental role of data and security in data driven finance. • To evaluate business and regulatory implications of technology for the financial industry. • To analyze the driving technology innovation in finance.
Course Outcome (CO)		**After undergoing the course, a student will be able:** CO 1 Understand the Knowledge in FinTech, Digital finance and RegTech. **CO 2** Apply global FinTech landscape and describe the role of banks and financial service providers in shaping and responding to innovation and disruption. **CO 3** Analyze banking and finance ecosystem and the role of consumers in shaping up current environment. Link behavioural finance theories to technological advances in banking. **CO 4** Evaluate holistically and generate finTech ideas. Understand the forces behind technological changes in the industry and apply disruption methodologies to practical case studies. Disruption is opportunity not a threat. **CO 5** Create finTech proposals. Recognize what type of innovation and disruption is value added with a potential to reshape legacy environment. Appreciate various challenges and complexities in the process of finTech innovation.
Pre-Requisite		Basics of Finance and Programming
Course Outline		**Description**	**CO Mapping**

		Module I- Introduction Fintech and its applications Introduction to Fintech foundations and overview, Fintech for entrepreneurs/ start-ups, investors, consumers, personal finance, lending, business transactions, retail transactions, equity trading, unicorns, business models,Banking, Financial Services and Insurance (BFSI). Introduction to Bank Tech and Insure Tech.	CO1
		Module II- Machine Learning and Artificial Intelligence Introduction to Machine Learning (ML) and Artificial Intelligence (AI) in Finance, ML algorithms and application, AI and applications in finance, AI/ML in changing business landscape, Cloud computing and its architecture.	CO2
		Module III- Asset Pricing Models Introduction to Capital Asset Pricing Model, Arbitrage Pricing Theory, Beta estimation, Model Testing, Forecasting-ARIMA, ARCH, Modelling the SCL, Testing the explanatory power of the individual variance. Back testing, volatility forecasting; event study in finance; portfolio optimization, asset pricing models- capital asset pricing & arbitrage pricing models; risk management- Value at risk, parametric VaR, historical VaR., Data Exploration using Fundamentals. Technical analysis. Gauging the market sentiment. Simulating Trading Strategies. Pairs Trading. Markowitz Mean-variance optimization.	CO3, CO4
		Module IV- Fixed Income Securities Measuring market risk of FIS, Immunization of fixed income portfolios, Pricing a convertible bond, The term structure of interest rate, the estimation problem, Estimation of the term structure by linear regression, Cubic spline regression.	CO5
		Module V Derivatives Pricing and Credit Risk Management The Black-Scholes model, The Cox-Ross-Rubinstein model, Connection between the two models, Greeks, Implied volatility. Credit default models, Correlated defaults, migration matrices	CO4, CO5
Evaluation		Internal Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project, Mid Term): 40 marks End-Term Evaluation: 60 marks	
Suggested Readings		**Text Books:** • Chakraborty, S. (2018). **Fintech: Evolution or Revolution**. Business analytics research lab India. **Reference Books** • Nicoletti, B., Nicoletti, W., & Weis. (2017). Future of FinTech. Basingstoke, UK: Palgrave Macmillan. • Chishti, S., & Barberis, J. (2016). The Fintech book: The financial technology handbook for investors, entrepreneurs and visionaries. John Wiley & Sons.	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO204.1	2	2	2	1	1	-	-	3	2	3	2
	CO204.2	2	2	3	3	1	-	-	3	1	3	1
	CO204.3	2	3	2	2	1	-	-	3	2	2	2
MFEC204 Financial Technology	CO204.4	2	3	3	3	1	-	-	3	3	3	3
	CO204.5	2	3	3	3	1	-	-	3	3	3	3

| | CO204 (Average of non-zero entry) | 2 | 2.6 | 2.6 | 2.4 | 1 | - | - | 3 | 2.6 | 2.8 | 2.2 |

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Research Methodology
Course Code		MFEC 205
Course Credit		3
Type of Course		Program Core
Semester		II
Aims and Objectives		This course aims to develop and extend students" knowledge of quantitative and qualitative research methods as well as facilitating their understanding and ability to apply the key methodological principles in the design of different types of research to solve Business and Financial Economics problems.
Course Outcome		**Upon successful completion of the course the Learner will be able to:** CO1 Understand the basic framework of the research process and develop research methodology to study a research problem. CO2 Apply statistical tools & techniques in business and Financial Economics applications. CO3 Analyse necessary critical thinking skills in order to apply appropriate methodology and data analysis tools CO4 Evaluate research problems and take decisions for real-life problems. CO5: Develop research reports
Pre-Requisite		Basic understanding of statistics
Course Outline		**Description**	**CO Mapping**
		Module I: Introduction: Meaning and Objectives, Type of Research: Quantitative vs. Qualitative Research, Role of research in functional areas; Accounting, Finance, Marketing, HR etc. Research Methods, Research Methodology, Research Process.	CO1
		Module II: Defining Research Problems: Setting Objectives, Formulating Hypothesis, Research Design, Sample Design for qualitative and quantitative research	CO2
		Module III: Collection of Data: Primary and secondary data, Methods of primary data collection, Questionnaire construction and design, Precautions in the use of secondary data, Questionnaire vs. schedules.	CO3
		Module IV : Analysis and Data Processing: Classification, Tabulation, Editing, Qualitative and Quantitative Data Analysis and interpretation: Uni-variate, Bi-variate and Multi-variate Analysis.	CO4, CO5

		Module V: Preparation and writing a Research report: Categories of report, parts of a report, presentation of a report.	CO5
Evaluation		▪ Internal Assessment - 40 % ▪ End Semester Assessment- 60 %	
References		**Text Book** 1. Chawla D., & Sondhi N. (2016). *Research Methodology* (2nd ed.). Vikash publishing. **Reference Books** 1. Zikmund, W.G., Barry, J., Jon, C.C., & Griffin, M. (2013). *Business Research Methods* (9th ed.). Cengage. 2. Cooper D., & Schindler, P. (2013). *Business Research Methods* (12th ed.). Tata McGraw Hill. 3. Paneerselvam, R. (2014). *Research Methodology* (2nd ed.). PHI, New Delhi. 4. Kothari, C.R., & Garg, G. (2019). *Research Methodology* (4th ed.). New Age International Publishers. 5. Joseph F. Hair Jr, William C. Black, Barry J. Babin, Rolph E. Anderson (2009). Multivariate Analysis. Pearson; 7th edition (13 February 2009).	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing

Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
MFEC204 Financial Technology	CO204.1	1	1	2	1	1	-	-	3	3	2	3
	CO204.2	2	3	3	1	1	-	-	3	3	2	3
	CO204.3	2	1	1	1	1	-	-	3	3	2	2
	CO204.4	3	1	1	1	1	-	-	3	3	2	3
	CO204.5	3	1	1	1	1	-	-	3	3	2	3
	CO204 (Average of non-zero entry)	2.2	1.4	1.6	1	1	-	-	3	3	2	2.8

Correlation level 1, 2 and 3 as defined below:

"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Data Analytics in Financial Decision Making
Course Code		GEC-201
Course Credit		3
Type of Course		Generic Elective
Semester		II
Aims and Objectives		**The objectives of the course are:** • To provide an overview of data quality, data storage, data scrubbing, and data flows issues and trends. • To provides the theoretical and practical foundation for data analytics with focus on financial domain. • To enable students to make data-driven financial decisions using data science tools and analytics methods.
Course Intended Learning Outcome		**After undergoing the course, a student will be able to:** CO1: Understand the issues of data quality, data storage, data scrubbing, data flows, and data encryption and their potential solutions. CO2: Apply newly learned data management and analytics skills to financial and capital markets, social media, and the financial services industry. CO3: Analyze data analytics methods in the financial domain to
		make data-driven decisions. CO4: Evaluate real-life proposals for financial investment in a meaningful manner using data analytics. CO5: Create application oriented strategies for business decision
Pre-Requisite		None

Course Outline		Description	CO Mapping
		Module I: Introduction to financial data analytics: Data analytics, Building blocks of data analytics, Exploratory Data Analysis (EDA), Understanding data in finance, sources of data data pre-processing, financial data quality issues and data scrubbing, feature extraction and portability, data reduction and transformation. Case Study: EDA on NYC Real Estate	CO1
		Module II: Data scrapping for web: Web Page Retrieval, Web Scrapping, Regular Expression Extraction, Similarity and Distances, Impact of High Dimensionality, Data Distribution, and Local Data Distribution. Case Study: Data and Web Technologies, Web Scrapping for Financial Data.	CO2

		Module III : Classification and Prediction: Decision Tree Induction , Bayesian Classification , Back Propagation , Classification Methods , Prediction , Classifiers accuracy , Cluster Analysis , Clustering Methods , Hierarchical Methods , Density Based Methods , Outlier Analysis.Case Study: Fraud Analytics in Finance	CO3
		Module IV: Analytics with Time Series and Text Data Mining: Time Series Data. Using Decision Tree to Trade Stock. Building a Trading Strategy. Handling Time-Dependent Data. Mining Text Data. Document Preparation and Similarity Computation. Topic Modelling. Case Study: Time Series Analytics in R/Python	CO4
		Module V: Introduction to Pythons/ R and Hands-on Advanced Analytics: Using Statistics to Identify Spam, News Analytics and Sentiment Analysis, Valuation Analytics, Valuation of Options, Portfolio Analytics, Building stock prices forecasting models using Machine Learning and Deep learning.	CO3,CO4
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project/Mid Term Examination): 40 marks **End-Term Evaluation** : 60 marks	
References		**Text Books:** 1. Kamber, M., Han, J., Pei, J. (2011). Data Mining: Concepts and Techniques. Netherlands: Elsevier Science. 2. Hilpisch, Y. (2014). Python for Finance: Analyze Big	
		Financial Data. United States: O'Reilly Media. **Reference Books :** 1. Lang, D. T., Nolan, D. (2015). Data Science in R: A Case Studies Approach to Computational Reasoning and Problem Solving. United Kingdom: CRC Press. 2. McKinney, W. (2017). Python for Data Analysis: Data Wrangling with Pandas, NumPy, and IPython. United States: O'Reilly Media. 3. Kim, J., Davenport, T. H. (2013). Keeping Up with the Quants: Your Guide to Understanding and Using Analytics. United States: Harvard Business Review Press. 4. Gardener, M. (2012). Beginning R: The Statistical Programming Language. Ukraine: Wiley.	

Facilitating the achievement of Course Learning Outcomes

Module No.	Course Outcomes (CO)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion	Active learning and application with the help of small group exercises, quiz	2 (Understand)
2.	CO2	Lecture and discussion through small cases.	Case analysis, Exercise and Presentation	3 (Apply)
3.	CO3	Lecture, Case analysis, presentation and activity.	Case analysis, Exercise and Presentation	3 and 4 (Apply and Analyze)
4.	CO3	Lecture, Case analysis, Presentation and activity.	Case analysis, Exercise and Presentation	3 and 4 (Apply and Analyze)
5.	CO4	Lecture, discussion, project, presentation	Assignment and activity	4 (Analyze and Evaluate)

Bloom's Taxonomy:
> Level 1: Remembering
> Level 2: Understanding
> Level 3: Applying
> Level 4: Analysing
> Level 5: Evaluating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO201.1	2	2	2	1	1	-	-	2	2	3	2
	CO201.2	1	2	3	1	1	-	-	2	2	3	1
GEC201 Data Analytics in Financial Decision Making	**CO201.3**	2	3	2	2	1	-	-	2	2	3	2
	CO201.4	2	3	3	3	1	-	-	2	3	3	3
	CO201.5	2	3	3	3	1	-	-	2	3	3	3
	CO201 (Average of non-zero entry)	1.8	**2.6**	**2.6**	**2**	**1**	**-**	**-**	2	**2.25**	**3**	2.2

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Semester-III

Course Name	Summer Internship
Course Code	MFECSI
Course Credit	Program Core
Course Type	6
Semester	III
Course Objective	**The objectives of this course are:** • To provide practical exposer to students to the banking and financial service sector. • To sensitize students about practical problems to find solutions. • To equip students with the ability to critically examine practical issues and gain experience to deal with • To develop skill and idea for developing leadership skill and adopt organizational culture
Course Outcome (CO)	**Upon successful completion of the course a student will be able:** CO1: Understand and experience real market problems. CO2: Analyze the data and find solutions. CO3: Apply the concepts for policy evaluation and take financial decision. CO4: Evaluate organizational culture and work in a team. CO5: Create and developing report for policy reccomedation
Pre-Requisite	None

Course Outline	Description	CO Mapping
	Students will do internship in a Banking and Financial Sector Service organization during summer gap after completion of second semester. The students need to appear for a final presentation and viva voce. Student will be considered as an intern and complete the internship under a designated company guide. However, the faculty internship coordinator will allocate a faculty guide in consultation to the head of the department. The student will be in regular touch with the faculty guide and inform about the progress. An interim presentation about the progress will be conducted by the department where the student has to present his progress. At the end of the internship the student has to submit a summer internship report as per the prescribed format along with a certificate of completion duly signed by the company guide.	CO1 CO2 CO3 CO4 CO5
Evaluation	Attendance (10 marks); Report (70 Marks); Presentation/Viva voce (20 Marks).	
Suggested Readings:	**Reference Books:** As suggested by the company guide and faculty guide.	

Facilitating the achievement of Course Learning Outcomes

Module No.	Course Intended Learning Outcomes (CILO)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Expert discussion	Active learning and application with the help of small group exercises	2
2.	CO2	Projects and assignments to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Team assignment and work performance	Assignment and activity	5
5.	CO5	Team assignment and work performance	Assignment and activity	5

Bloom's Taxonomy:

Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6 : Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO1	3	3	2	2	3	3	2	2	3	3	2
	CO2	3	3	3	2	3	3	2	2	3	3	2
	CO3	3	3	3	2	3	3	2	2	3	3	2
	CO4	3	3	3	2	3	3	2	2	3	3	2
MFECSI	CO5	3	3	3	2	3	3	2	2	3	3	2
Summer Internship	CO401 (Average of non-zero entry)	3	3	3	2	3	3	2	2	3	3	2

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		International Trade and Operations
Course Code		MFEC 301
Course Credit		3
Course Type		Program Core
Semester		III
Course Objective		**The objectives of the course are:** • To enhance students to principles and operational issues of international trade. • To highlight the process of trade policies and negotiation in the world economy. • To sensitize students about the risk and opportunities of international trade
Course Outcome (CO)		**Upon successful completion of the course a student will be able:** CO1: **Understand** the basic theories and principles of international trade. CO2: **Analyze** the concepts of international economics for international trade and operations decision. CO3: Apply the different issues regarding international trade and operational issues for effective decision making CO4: Evaluate the major international economic problems and challenges in developed and developing economy. CO5: Develop idea and concepts for doing international trade
Pre-Requisite		None

Course Outline	Description	CO Mapping
	Module I: Introduction to International Trade and Operations Reasons and principles of international trade, Labour Productivity and Comparative Cost Advantage, - The Ricardian and Heckscher-Ohlin Model, Specific Factors and Income Distribution.	CO1
	Module II: Getting Started in International Trade Scanning International Market, Decision to go international or not, Targeting international market, Regulatory requirement for getting started, Processing of an export order, International trade documentation, International sales contract, Understanding Incoterms, Balance of Payment.	CO2
	Module III: India's Foreign Trade Policy: Export Promotion International trade policy and restrictions, The foreign trade policy of India, Objectives and strategies to achieve, Steps taken to promote export: Marketing Development Assistance, SEZ, Comparing India"s situation with others, Export credit Risk Management,	CO3

		Module IV: International Trade Insurance, excise and custom operations Cargo Insurance: Claims and Procedure, Legal framework of central excise and excise clearance of exports, Customs clearance procedure of exports ,EDI Initiatives in Customs	CO1,CO2
		Module V: International Trade operation and changing dynamics of world political economy World Trade Organization, The trend and growth of international trade-Developing and developed country perspective, Trade disputes and regional trade blocks, India"s FTA and protectionism in international trade. Trade Globalization: Opportunity and Crisis, Optimum Currency Areas and the Euro, Developing Countries: Growth, Crisis, and Reform.	CO3,CO5
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks **End-Term Evaluation** : 60 marks	
Suggested Readings:		**Text Books:** - Ram Singh (2022) International Trade and Operations, Excel Books,9th Edition - Paul Krugman, Maurice Obstfeld and Marc Melitz (2015), *International Economics: Theory and Policy*, 10th Edition, Pearson. - Dominick Salvatore (2016), 12th Edition, International Economics, Wiley. **Reference Books:** - Thomas Pugel (2020) "International Economics", Mc Graw Hill - Grath, A. (2016). The Handbook of International Trade and Finance: The Complete Guide for International Sales, Finance, Shipping and Administration Ed. 4. - Peng, Y. (2016). Research on International Trade Practice Teaching Reform. - Sathe Rajiv (2021) A professional guide to International trade and operations, Kindle Edition	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2

		Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO301.1	3	3	2	1	1	-	-	3	2	3	2
	CO301.2	2	2	3	1	1	-	-	3	3	2	1
	CO301.3	2	2	2	1	1	-	-	3	2	3	2
	CO301.4	2	3	2	1	1	-	-	3	2	2	3
	CO301.5	2	3	2	1	1	-	-	3	2	2	3
MFEC301 International Trade and Operations	**CO301 (Average of non-zero entry)**	**2.2**	**2.6**	**2.2**	**1**	**1**	**-**	**-**	**3**	**2.2**	**2.4**	**2**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Applied Financial Econometrics
Course Code		MFEC 302
Course Credit		3
Course Type		Program Core
Semester		III
Course Objective		**The main objectives of the course are:** • To familiarize the students on time series and panel data econometrics • To covers univariate and multivariate models of stationary and nonstationary time series. • To develop a comprehensive set of tools and techniques for analyzing various forms of univariate and multivariate economics and financial analysis. • To focus on applications in the field of applied economics and financial econometric modelling.
Course Outcome (CO)		**Upon successful completion of the course a student will be able:** CO1: Understand advanced econometric techniques in field of economics and finance. CO2: Analyse multiple financial problem with empirical investigation CO3: Applied various econometrics models in economics and financial domain. CO4: Evaluate the outcome of various economic and financial decision precisely CO5: Develop econometric models for financial decision making
Pre-Requisite		None
Course Outline	**Description**	**CO Mapping**
	Module I: Stationarity Univariate Model Stochastic processes- Properties of stochastic process. Time series as a discrete stochastic process–Stationarity-Characteristics of stochastic component of time series (mean, autocovariation and autocorrelation functions). Lag operator- Unit root tests - Deterministic and stochastic trend models-Augmented Dickey Fuller test–Phillips-Perron test-Estimation and testing. *(Hands on training with STATA and EViews)*	CO1
	Module II: Non-Stationary Multivariate Models Spurious regression- Cointegration- Granger representation theorem -Vector error correction models (VECMs)- Structural VAR models with cointegration - Testing for cointegration – Engle and Granger (1987) and Johansen and Juselius (1990) - Estimating the cointegrating rank- Estimating cointegrating vectors- Granger causality test *(Hands on training with STATA and EViews)*	CO2

		Module III : Non-stationary Time Series and Volatility Vector Auto Regressive (VAR) models-Impulse Response Function (IRF)-Variance Decomposition Analysis - Structural Vector Auto Regressive (SVAR) models– Estimation and Diagnostic Checking *(Hands on training with STATA and EViews);* ARIMA model and its application; forecasting models and application.	CO3
		Module IV : Conditional Variance Models I Volatility Clustering- Leverage Effects- Modeling Volatility- Auto Regressive Conditional Heteroscedasticity (ARCH) Model- Generalised Auto Regressive. Conditional Heteroscedasticity (GARCH) Model – Extensions to GARCH-Exponential GARCH and Threshold GARCH models *(Hands on training with STATA and EViews and R Software)*	CO1,CO2
		Module V: Panel models Panel unit-root test - Types of panel unit root test and application; panel co-integration test – Pedroni, Kao, ARDL models; panel granger causality test; panel vector error correction models.	CO5,CO4
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks **End-Term Evaluation** : 60 marks	
Suggested Readings:		**Text Books**: • Kerry Patterson, an Introduction to Applied Econometrics: A Time Series Approach. Palgrave Macmillan, 2000. • Walter Enders, Applied Econometric Time Series. New York: John Wiley & Sons, Inc., 1995. • Brooks Chris. (2014). Introductory Economics for Finance. Cambridge University Press; 3rd edition (2 May 2014). **Reference Books:** • B. H. Baltagi, Econometric Analysis of Panel Data, 4th ed., John Wiley, New York, 2008. • J.D. Hamilton, Time Series Analysis, Princeton, NJ: Princeton University Press, 1994. • W. Greene, Econometric Analysis, Macmillan, 1993	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2

#		Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO302.1	3	1	1	1	1	-	-	3	2	3	2
	CO302.2	2	1	1	1	1	-	-	3	3	2	2
	CO302.3	2	2	1	1	1	-	-	3	2	3	3
	CO302.4	3	2	1	1	1	-	-	3	3	3	3
MFEC301 International Trade and Operations	**CO302.5**	3	2	1	1	1	-	-	3	3	3	3
	CO302 (Average of non-zero entry)	**2.6**	**1.6**	**1**	**1**	**1**	-	-	**3**	**2.6**	**2.6**	**2.6**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

Course Name		Innovation and Venture Capital
Course Code		**MFEC 303**
Course Credit		**3**
Course Type		**Program Core**
Semester		**III**
Course Objective		**The objectives of the course are:** • To understand Innovation Management Technology, Adoption of Innovations. • To differentiate between technological and non-technological innovations • To gain ability to understand Angel financers, venture capitalist and private equity funds their working and evaluation process. • To get aware of the different appraisal processes of different sources of finance and bottlenecks faced by entrepreneur or manager in raising finance from different sources and safeguard them and the cost of capital and the challenges of these sources of finance.
Course Outcome (CO)		**Upon successful completion of the course a student will be able:** CO1: Understand the Innovations and Entrepreneurship. CO2: **Analyze** risk associated the venture capital financing. CO3: Apply the knowledge of analysing the process related to venture capitals. CO4: Evaluate strategies related to growth of business applying innovations and venture capital. CO5 : To design strategies related to growth of business applying innovations and venture capital.
Pre-Requisite		None

Course Outline	Description	CO Mapping
	Module I- Introduction to Innovations and Entrepreneurship Idea generation & Prototype Development • Technological and Non technological Innovation and process • Entrepreneurship • Social Innovation and Entrepreneurship	CO1
	Module II- Concept of Venture Capital and Private Equity Venture capital, Angel financers, Private Equity, Hedge funds, Their classification and their different characteristics. History of Venture capital, Angel financers, Private Equity, Hedge funds, in India. Different models of VC, PE and hedge funds in India. Correlation of means of finance with project life cycle	CO2

		Module III- Venture Capital Working Process The Venture capital cycle, Opportunity recognition, Key parties involved, value of opportunity, negotiation on terms, harvest or exit investment. Initial screening, due diligence, risk return fit, Return on investment from cash flows, breakeven point.	CO3
		Module IV- Valuation of Venture Capital Investment Methods of valuation and its role throughout the venture capital process. Valuing companies with options: Real options. Difference in approach and evaluation process of PE, angel financer, Venture capitalist with Banks and financial institutions.	CO1,CO2
		Module V – Negotiation and Structure of Investment Intention, Security type, Liquidation preferences, Shareholder agreement, Share purchase agreement	CO3,CO4
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks **End-Term Evaluation** : 60 marks	
Suggested Readings:		**Text Book** • Taneja Satish.(2002).Venture Capital In India. New Delhi: Galgotia Publishing. **Reference Books** • Benjamin, Gerald A., and Joel B Margulis (2005). Angel Capital, How to Raise Early stage, private equity Financing. New Jersey: John Wiley & Sons Inc. Princeton University Press, 1994. W. Greene, Econometric Analysis, Macmillan, 1993	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture,	Case analysis,	4

| | | presentation and activity. Topics for short term projects to be given. | Exercise and Presentation | |

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO303.1	2	2	2	1	1	-	-	3	2	3	2
	CO303.2	2	2	3	3	1	-	-	3	3	3	1
	CO303.3	2	3	2	2	1	-	-	3	2	2	2
MFEC 303 Innovation and Venture Capital	**CO303.4**	2	3	3	3	1	-	-	3	3	3	3
	CO303.5	2	3	3	3	1	-	-	3	3	3	3
	CO303 (Average of non-zero entry)	**2**	**2.6**	**2.6**	**2.4**	**1**	**-**	**-**	**3**	**2.5**	**2.8**	**2.2**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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(Group of Program Elective Courses in semester-III)

Course Name	Insurance & Risk Management	
Course Code		
Course Credit	3	
Course Type	Program Elective	
Semester	III	
Course Objective	**The objectives of the course are:** • To acquaint students with the legal contexts within which decisions are made and actions are performed for the frequent disputes that require resolution and/or expert opinion. • To understand the concept of insurance and importance.	
Course Outcome (CO)	**Upon successful completion of the course a student will be able:** CO1: Understand the basic practice of life insurance in country. CO2: **Analyze** the practical aspect of non-life insurance. CO3: Apply the knowledge of analysing the process related insurance risk management. CO4: Evaluate strategies related insurance mechanism. CO5: Develop understanding about insurance market and strategies.	
Pre-Requisite	None	
Course Outline	**Description**	**CO Mapping**
	Module I : Insurance and Risk Management Concept of insurance- importance and types; Essential requirements and principles of insurance; Insurance and risk management; Risk and uncertainty, classification of risks, sources of risk-external and internal, risk management; General insurance and life insurance; Overview of insurance sector in India; Role of insurance in economy.	CO1
	Module II: Principles and Regulation of Insurance Principles of Insurance Contract, Insurance Act-Life Insurance; General Insurance; Insurance Regulatory & Development Authority (IRDA) Act - objectives, powers & functions, tax implications of insurance, legal aspects of health insurance, consumer rights, Insurance reforms in India.	CO2
	Module III: Practice of Life Insurance Origin, growth of life insurance, types of life insurance policies, Evaluation of plans and riders of life insurance policies, Policy forms & other document, nominations & assignments, alterations and revivals of lapsed policies; Claim Settlement Procedure. Life insurance need analysis and Human Life Value Analysis	CO3

		Module IV- General Insurance Types of General Insurances: Fire Insurance: Nature, types of fire policy, New standard fire products for MSME, Accident Insurance, Motor Insurance, Agriculture Insurance: Concepts & Basic understanding of underwriting, claim and loss assessment	CO1,CO2
		Module V – Health Insurance Objectives, Public Health Sector, Employee State Insurance Scheme, Health Insurance Products, features and classification- Group health cover, critical illness policy – long term care insurance, Health Insurance Underwriting, Claims Management and documentation; Third Party Agents (TPA„s) and Network Hospitals; Micro insurance and health insurance for poor sections.	CO5,CO4
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks **End-Term Evaluation** : 60 marks	

Suggested Readings:		**Text Book**
		Reference Books
		   1. Bare Acts (2018) *Insurance Laws and Manuals*, Taxmann, *Unit(s) -II*
		   2. Indian Institute of Banking and Finance (2015) *Insurance products (including Pension Products).* Taxman. *Unit(s) - I, III and IV*
		   3. National Insurance Academy (2009). *General Insurance Business Operations and Decision Making.* Cenage Learning *Unit(s) - IV*	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5

5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
Insurance & Risk Management	CO301.1	3	2	2	2	3	-	-	3	2	3	2
	CO301.2	3	2	3	3	3	-	-	3	1	3	1
	CO301.3	3	3	2	2	2	-	-	3	2	2	2
	CO301.4	3	3	3	3	1	-	-	3	3	3	3
	CO301.5	3	3	3	3	1	-	-	3	3	3	3
	CO301 (Average of non-zero entry)	**3**	**2.6**	**2.6**	**2.6**	**2**	**-**	**-**	**3**	**2.2**	**2.8**	**2**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name	Banking operation and Management
Course Code	
Course Credit	3
Course Type	Program Elective
Semester	III
Course Objective	**The objectives of the course are:** • To acquaint students with the banking regulations contexts within which decisions are made and actions are performed for the frequent disputes that require resolution and/or expert opinion. • To understand the concept of Banking management and operations.
Course Outcome (CO)	**Upon successful completion of the course a student will be able:** CO1: Understand latest tools and techniques of bank management including bank financial statements, performance analysis. CO2: Analyze the risk management including forex risk management. CO3: Apply the knowledge of analysing the process related banking operations management. CO4: Evaluate banking reforms and income recognition. CO5: Develop concepts and skill for asset classification and application
Pre-Requisite	None

Course Outline	Description	CO Mapping
	Module-I Banking Industry in India and its structure in India, Bank Financial Statements and performance analysis, Banking Risks (CAMEL), FinTech in Banking: Alternate delivery Channels - Core banking solution, Internet Banking, Mobile Banking, ATM, Phone banking, SMS Banking, New financial products - Debit and Credit cards, E payment - ECS, NEFT, RTGS, IMPS, NACH, UPI, Payment wallets.	CO1
	Module-II Types of line of credit facilities & principles of credit appraisal Systems of banks, Introduction to Risk Management, Prudential Norms, Classifications of Assets - Standard, Sub-standard, Doubtful & Loss Assets classification	CO2
	Module-III Management of Liquidity Risks, ALM, Capital Adequacy & Market Risk, Management of Bank Capital, Recapitalization	CO3

		Module-IV Managing Foreign Currency Assets and Liabilities, Managing the Foreign Exchange Risk, Managing Short & Long FX Positions, Spot, Forward, Swap, Hedging Techniques	CO1,CO2
		Module-V First Basel Accord, Second Basel Accord, International financial crises and its impact on Indian Banking, Third Basel Accord, Debt Recovery Tribunals/SARFAESI Act, The role of ethics in Banking including prevention of fraud and adherence to new capital adequacy norms for commercial banks	CO3,CO4
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks **End-Term Evaluation** : 60 marks	
Suggested Readings:		**Text Book** • The Indian Financial System by Bharati V. Pathak , Pearson Publication Latest Edition **Reference Books** • Bank Financial Management, Indian Institute of Banking and Finance, Latest Edition • Management of Financial Institutions with Emphasis on Bank and Risk Management, Prentice-Hall of India Pvt. Ltd. Latest Edition • Bank Financial Management, Indian Institute of Banking and Finance, Macmillan Latest Edition • Readings on Basel Accord in Master circular on Basel of RBI • Money, Banking & International Trade K.P.M. Sundharam, - Sultan Chand &Sons - New Delhi. • Management of Banking and Financial Services – P Suresh and Justin Paul	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case	Case analysis and	3

4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
4.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO302.1	3	2	2	1	2	-	-	3	2	3	2
	CO302.2	3	2	3	3	2	-	-	3	1	3	1
	CO302.3	3	3	2	2	1	-	-	3	2	2	2
Banking operation and Management	**CO302.4**	3	3	3	3	2	-	-	3	3	3	3
	CO302.5	3	3	3	3	2	-	-	3	3	3	3
	CO302 (Average of non-zero entry)	**3**	**2.6**	**2.6**	**2.4**	**1.8**	**-**	**-**	**3**	**2.2**	**2.8**	**2.2**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name	Financial Derivatives
Course Code	PEC 303
Course Credit	3
Course Type	Program Elective
Semester	III
Course Objective	**The objectives of the course are:** 1. To enable students to have a detailed understanding of the special characteristics of derivatives including forwards, futures, swaps, options and others, and their relationship to the underlying cash securities. 2. To be able to use these instruments to address a wide range of trading and investment objectives. 3. To understand and be able to control the risks of financial derivatives and derivatives portfolios
Course Outcome (CO)	**Upon successful completion of the course a student will be able:** CO1: Understand the functioning of Derivatives and Derivatives Markets. CO2: **Analyze** risks associated with equity market and hedge the risk through futures market. CO3: Apply Options Contract to reduce the risk related to equity trading. CO4: Evaluate equity market and hedge the risk through futures market. CO5: To design strategies related Derivatives Contract by estimating volatility.
Pre-Requisite	None

Course Outline	Description	CO Mapping
	Module I- Introduction to Derivatives Derivatives: Basics and Need of Market, Indian and International markets overview.	CO1
	Module-II- Forward and Futures Derivatives Futures Markets, Forward and Futures Pricing and Hedging strategies	CO2
	Module III- Option Introduction to Options, Options and Options Markets ,Option Pricing Bounds and Fundamentals of Option Pricing, Binomial Option Pricing and Black and Scholes Option Pricing Models	CO3
	Module IV- Option Strategies Strategies of Options Hedging ,Sensitivity Analysis (the "Greeks")	CO1,CO2
	Module –V – Volatility Volatility – Introduction, Modeling, VIX, Uses of volatility in market strategies Risk Management and VaR.	CO3,CO4
Evaluation	**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks

		End-Term Evaluation : 60 marks		
Suggested Readings:		**Text Book** • Hull John C (2018) **,** *"Options, Futures and Other Derivatives"*, 10th Edition, Pearson Education, New Delhi **Reference Books** Kumar SSS (2007), "*Financial Derivatives*" 2nd Edition, PHI		

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
4.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO303.1	3	2	2	2	3	-	-	3	2	3	2
	CO303.2	3	2	3	3	1	-	-	3	1	3	1

Financial Derivatives	CO303.3	3	3	2	2	2	-	-	3	2	2	2
	CO303.4	3	3	3	3	2	-	-	3	3	3	3
	CO303.5	3	3	3	3	2	-	-	3	3	3	3
	CO303 (Average of non-zero entry)	3	2.6	2.6	2.5	2	-	-	3	2.2	2.8	2.2

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name	Game Theory and Its Applications	
Course Code	PEC 304	
Course Credit	3	
Course Type	Program Elective	
Semester	III	
Course Objective	The objectives of this course are: • To introduce the basic concept of game theory • To illustrate its importance in explaining various kinds of economic and social phenomenon in case of different market situations. • To develop students" aptitude for the implications of different companies" product positioning strategy. • To promote skill of analytical tools in understanding game theory fundamentals.	
Course Outcome (CO)	Upon successful completion of the course a student will be able: CO1: Understand the roles of managers in firms to take internal and external decisions. CO2: Analyze the various strategy for market equilibrium. CO3: Apply the concepts of game theory for price and product decision making. CO4: Evaluate firm"s decision using game theory technique and find out the efficient strategy for firms. CO5: Develop business strategies applying game theory approach	
Pre-Requisite	Mathematical Economics	
Course Outline	Description	CO Mapping

		Module-I: Introduction and Review Introduction: concept and definition of game theory, Theory of rational choice, interacting decision makers.	CO1
		Module-II: Strategic Games and Nash Equilibrium Strategic games: examples Nash equilibrium: concept and examples, Best response functions, Dominated Actions, Symmetric games and symmetric equilibrium. Market Competition and Profit Maximization	CO2
		Module-III: Applications of Nash Equilibrium Cournot"s model of duopoly market, Bertrand"s model of duopoly market, Electoral Competition; War of Attrition, Auctions, Accident Laws, Strategic games with randomization	CO3
		Module-IV: Mixed Strategy Nash Equilibrium Mixed strategy Nash equilibrium: concept and examples, Dominated Actions, Formation of Players" beliefs, Economic Applications.	CO1,CO2
		Module-V: Extensive Games and Nash Equilibrium Introduction to extensive games, Strategies and outcomes, Nash equilibrium, Subgame perfect Nash equilibrium, Backward induction, Stackelberg model of duopoly markets Ultimatum game	CO5,CO4
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks **End-Term Evaluation** : 60 marks	
Suggested Readings:		**Text Book** 1. Osborne, M.J. An Introduction to Game Theory, Oxford University Press, (2004). 2. Dixit, Avinash, Susan Skeath, David Reiley (2014). Games of Strategy. W W Norton & Co Inc; 4th edition (30 December 2014). **Reference Books:** **1.** Osborne, M.J. An Introduction to Game Theory, Oxford University Press, (2004). **2.** Mas-Colell, A., M.D. Whinston and J.R. Green Microeconomic Theory, Oxford University Press, (1995). **3.** Gibbons, R. A Primer in Game Theory, Pearson Education, (1992). **4.** Bierman and Fernandez, Game Theory with Economic Applications, Second Edition, Addison Wesley (1998). 5.Binmore, Fun and Games, Heath (1992).	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO304.1	3	2	2	2	3	-	-	3	2	3	2
	CO304.2	3	2	3	3	2	-	-	3	1	3	1
	CO304.3	3	3	2	2	2	-	-	3	2	2	2
	CO304.4	3	3	3	3	2	-	-	3	3	3	3
PEC304 Game Theory	CO304.5	3	3	3	3	2	-	-	3	3	3	3

| and Its Applications | CO304 (Average of non-zero entry) | 3 | 2.6 | 2.6 | 2.5 | 2.2 | - | - | 3 | 2.2 | 2.8 | 2.2 |

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Semester-IV

Course Name		Dissertation
Course Code		**MFED**
Course Type		**Program Core**
Course Credit		**6**
Semester		**IV**
Course Objective		**The objectives of this course are:** • To provide practical exposer to students to the banking and financial service sector issues. • To sensitize students about validating theoretical literature and examining real time issues. • To train students with using statistical and econometric tools for analyzing data • To develop skill for developing report and prescribing policy decision.
Course Outcome (CO)		**Upon successful completion of the course a student will be able to:** CO1: Understand and experience real market problems. CO2: Apply economic concepts with necessary statistical and econometric tool for solving real life problems CO3: Analyze finding and explaining the issues and challenges CO4: Evaluate findings and deriving conclusions for developing policy recommendation. CO5: Develop skill for fact analysis and providing consultancy for problem solution
Pre-Requisite		No

Course Outline	Description	CO Mapping
	Students will choose a research topic of interest in consultation to the faculty guide allocated by the department. The topic should be on current issues or problems. The work has to be carried out by the designated faculty guide. The student should be in regular touch with the faculty guide for guidance and inform about the progress. An interim pre submission presentation for understanding the progress will be conducted by the department where the student has to present his progress. According to the advice received, the student need to revise if necessary and has to submit the final dissertation report as per the prescribed format to the department after approval from the faculty guide. The students need to appear for a final presentation and viva voce.	CO2,CO3,CO4

Evaluation		Component	Weightage	Marks	Evaluated By
		Attendance	10%	10 Marks	Company guide/Faculty guide
		Report	70%	70 Marks	Faculty Guide
		Presentation /Vive voce	20	20 Marks	Panel constituted by the head of the department
		Total	100%	100 Marks	
Suggested Readings:		**Reference Books:** As suggested by the company guide and faculty guide.			

Facilitating the achievement of Course Learning Outcomes

Module No.	Course Intended Learning Outcomes (CILO)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Expert discussion	Active learning and application with the help of small group exercises	2
2.	CO2	Projects and assignments to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Team assignment and work performance	Assignment and activity	5
5.	CO5	Team assignment and work performance	Assignment and activity	5

Bloom's Taxonomy:

Level 2: Understanding
Level 3: Applying
Level 4: Analysing
Level 5: Evaluating
Level 6 : Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4
MFED Dissertation	CO1	3	3	2	2	3	3	2	2	3	3	2
	CO2	3	3	3	2	3	3	2	2	3	3	2
	CO3	3	3	3	2	3	3	2	2	3	3	2
	CO4	3	3	3	2	3	3	2	2	3	3	2
	CO5	3	3	3	2	3	3	2	2	3	3	2
	CO401 (Average of non-zero entry)	3	3	3	2	3	3	2	2	3	3	2

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Public Finance and Sustainability
Course Code		MFEC 401
Course Credit		3
Type of Course		Program Core
Semester		I
Course Objective		**The objectives of this course are:** • To introduce the students various concepts public finance. • To sensitize students to examine the linkages between dynamics of fiscal policy and the real economy. • To equip students with the ability to critically evaluate policy interventions and implications for economic stability • To develop skill and idea for modeling suitable policy.
Course Outcome (CO)		**Upon successful completion of the course a student will be able to:** CO1: Understand and interpret different concepts of public finance. CO2: Apply the concepts for policy evaluation and financial decision. CO3: Analyze the linkages between financial market and public policies over different time horizons of business cycle. CO4: Evaluate casual linkages in short run and long run term growth fluctuations. CO5: Developing skills for fact analysis and providing fiscal recommendation
Pre-Requisite		Basic statistical knowledge.
Course Outline		Description	CO Mapping

		Description	CO Mapping
		Module I: Principles of Public Finance Fundamental principles of public finance – Maximum Social Advantage. Role of Government, Voluntary exchange models; Impossibility of decentralized provision of public goods, Market failure, Economic Rational of the Government	CO1
		Module II: Taxation and Public Expenditure Theory of optimal taxation and incidence of taxation, taxable capacity, features. Sources of public revenue, direct and indirect taxes, effects of tax on production, distribution and economic activities, trends and pattern of public expenditure in India, Tax reforms in India; Goods and Service Tax, Demonetization and its impact. Inter-state conflict in tax division. Problem of double taxation, Tax evasion and the black economy	CO2

		Module III: Budgetary Policy Budgetary Policy: Balanced vs. unbalanced budget, Budget multiplier, budget as an instrument of economic policy, Objectives of fiscal policy, Interdependence of fiscal and monetary policies; budgetary deficits and its implications; Fiscal policy for stabilization-automatic vs. discretionary stabilization; Zero based budgeting; salient features of the most recent union budget of India. Pandemic and Budgetary response, Fiscal stimulus and Government Finance	CO3
		Module IV: Federal Finance Theory of Fiscal Federalism; Optimal size of the local government; Theory of grants: conditional vs. unconditional grants, lump sum grant vs. matching grants, Fiscal federalism in India: Resource transfer from Union to States-Criteria for transfer of Resources;Centre-State financial relations in India: Finance Commission of India, Concept of Cooperative Fiscal Federalism, FRBM Act, Current Issues in Centre state Financial Relation, Fiscal management during pandemic, Recommendations of the latest finance commission.	CO1,CO2
		Module V: Sustainable Public Finance and Policy Sources of public borrowing, importance of public borrowing, effects of public debt, tax vs. debt, burden of public debt- classical vs. others, shifting of debt burden, intergenerational shifting, Solvency and Sustainability of Public Debt, Inter-temporal Budget Constraint, Public Borrowings and Price Level; Crowding Out of Private Investment, methods of debt redemption, trends and pattern of public debt in India. Issues in Debt Management in India, Deficit Stability and Debt Sustainability, Optimal Economic Growth. Fiscal space and Fiscal Risk calculation.	CO3, CO4
Evaluation		**Continuous Evaluation** (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks **End-Term Evaluation** : 60 marks	

Suggested Readings:		**Text books:**
		• Musgrave, R. A. and P. B. Musgrave (2017), Public Finance in Theory and Practice, McGraw Hill Education, Kogakusha, Tokyo o Bahl, Roy and , Bird, R. M. (2018) Fiscal Decentralization and Local Finance in Developing Countries: Development from Below (Studies in Fiscal Federalism and State- local Finance series), Edward Elgar Publishing Ltd **Reference Books:** • Indian Union Budgets and Economic Survey (Latest) • Jha, R. (2009), Modern Public Economics, Routledge, London. • Musgrave, R. A. and P. B. Musgrave (2017), Public Finance in Theory and Practice, McGraw Hill Education, Kogakusha, Tokyo. • Reddy, Y.V and Reddy, G.R. (2019), Indian fiscal federalism,Oxford University Presses **Reports:** • Economic Survey Published by Ministry of Finance, Govt. of India • Annual Budget published by Ministry of Finance, Govt. of India **Other Materials:** Case studies and published articles will be shared in the class from time to time

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5

5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO401.1	3	2	2	2	3	-	-	3	2	3	2
	CO401.2	3	2	3	3	3	-	-	3	1	3	3
	CO401.3	3	3	2	2	2	-	-	3	2	2	2
	CO401.4	3	3	3	3	1	-	-	3	3	3	3
MFEC401 Public Finance and Sustainability	**CO401.5**	3	3	3	3	1	-	-	3	3	3	3
	CO401 (Average of non-zero entry)	**3**	**2.6**	**2.6**	**2.5**	**2.25**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Strategic Financial Management
Course Code		MFEC 402
Course Credit		3
Course Type		Program Core
Semester		IV
Aims and Objectives		To create understanding among students regarding the application of Strategic Management concepts in Finance Area.
Course Outcome (CO)		**Upon successful completion of this course the student will be able to:** **CO1:** Understand various concepts of finance and Venture capital function in the corporate. **CO2:** Apply the concept of corporate Restructuring **CO3:** Analyze the complexities associated with management of cost of funds in the capital Structure to Get an insight into the financing strategy of a company. **CO4:** Evaluate financing startagies skill for preparing of accounting in Banks **CO5:** Designing financing strategies for financial management.

Course Outline		Description	CO Mapping
		UNIT I- Nature and Value by Strategic Management – Dimensions of Strategic Decisions -Benefits and risks of Strategic Management -Financial policy and strategic Planning: Components of financial strategy; Objectives and goals; Strategic planning process. Linkage between corporate strategy and financial strategy; corporate strategy and high technology investment, Implications of capital budgeting.	CO1
		UNIT II: Investments Decisions under Risk uncertainty: Techniques of investment decision- risk adjusted discount rate, certainty equivalent factor, statistical method, sensitivity analysis and simulation method; corporate strategy and high technology investments**.**	CO2
		UNIT III: Financing Strategy: Hybrid securities namely convertible and non-convertible debentures, deep discount bonds, secured premium notes, convertible preference shares; option financing, warrants, convertibles and exchangeable.- Managing Financial risk with derivatives	CO3
		UNIT IV - Expansion and Financial Restructuring: Mergers and amalgamations - corporate restructuring, reasons for merger, legal procedure for merger, benefits and cost of merger; Determination of swap ratios; Evaluation of merger proposal.	CO3, CO4

		UNIT V- Venture capital:		
		Venture capital- concept and developments in India; types of venture capital, Process and methods of financing, fiscal incentives.	CO5	
Evaluation		▪ Internal Assessment: 40 Marks ▪ End Semester Assessment : 60 Marks		
References		**Text Book:** • Allen D: An introduction to Strategic Financial Management, CIMA/Kogan page, London. **References Books** • Chandra, Prasanna: Financial Management, Tata McGraw Hill Delhi. • Julian, Lowenthal, Survival, Strategic for Financial Services, John Wiley • Hull J.C Options, Futures and other Derivative Securities, Prentice Hall of India Delhi • Mattoo, P.K. Corporate Restructuring: An Indian Perspective, Macmillan, New Delhi. • Pandey, I.M. Financial Management Vikas Publications, Delhi. • Smith, C.W C.W Smithson., and D.S Wilford; Managing Financial Risk,. Harper and Row New York. • My. Khan, Indian Financial System, Tata McGraw Hill, 2001		

Facilitating the achievement of Course Learning Outcomes

Module No.	Course Intended Learning Outcomes (CILO)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 2: Understanding
Level 3: Applying
Level 4: Analysing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO402.1	3	2	2	2	3	-	-	3	2	3	2
	CO402.2	3	2	3	3	2	-	-	3	1	3	2
	CO402.3	3	3	2	2	3	-	-	3	2	2	3
MFEC402 Strategic Financial Management	CO402.4	3	3	3	3	2	-	-	3	3	3	3
	CO402.5	3	3	3	3	2	-	-	3	3	3	3
	CO402 (Average of non-zero entry)	3	2.6	2.6	2.5	2.5	-	-	3	2.2	2.8	2.6

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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(Group of Program Elective Courses in semester-IV)

Course Name		Business Valuation	
Course Code			
Course Credit		3	
Course Type		Program Elective	
Semester		IV	
Course Objectives		**The objectives of the course are:** • To give a fundamental understanding of valuation • To gain ability to apply valuation principles, to familiarize with recent developments in the area Corporate valuation • To gain ability to understand the recent changes in the field of corporate valuation	
Course Outcome (CO)		**At the end of this course, participants would be able:** 1. CO1 – Understand the concept and different models of valuation 2. CO2- Apply the techniques and methods of valuation in real life situations 3. CO3- Analyse proficiency in valuation 4. CO4- Evaluate financial instruments and reports 5. CO5- Develop proficiency in valuation	
Pre-Requisite		Financial Management and Financial statement analysis	
Course Outline		**Description**	**CO Mapping**
		Module I- Corporate valuation- Overview of financial statement analysis, Analysing Key Financial and Non-Financial Ratios to support forecasting future cash flows, An Overview-Context of valuation-Approaches to Valuation-Features of the valuation process: Book value approach, Stock and debt approach, discounted cash flow approach, Relative valuation approach, option valuation approach-Features of the valuation process-Corporate valuation in practice.	CO1
		Module II- Enterprise DCF Model- Analysing historical performance-Estimating the cost of Capital- Forecasting performance-Estimating the continuing value-Calculating and interpreting the results-Other DCF models: Equity DCF Model: Dividend discount model, free cash flow to Equity (FCFE) model-Adjusted present value model-Economic profit model-Applicability and Limitations of DCF analysis .	CO2

		Module III Relative valuation- Steps involved in Relative valuation-Equity valuation multiples-Enterprise valuation multiples-Choice of multiple-Best practices using multiples-Assessment of relative valuation. Other Non DCF Approaches-Book Value approach-Stock and Debt approach-Strategic approach to valuation-Guidelines for corporate valuation	CO1, CO3
		Module IV – Advanced issues in valuation- Valuation of companies of different kinds-valuation in different contexts-Loose ends of valuation-Valuation of intangible assets: Patents, trademarks, copyrights and licenses; Franchises; Brands	CO2
		Module V- Value Based Management- Methods and Key premises of VBM-Marakon approach-Alcar approach-Mckinsey approach-Stern Stewart approach-BCG approach-Lessons from the experiences of VBM adopters.	CO5
Evaluation		Internal Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project, Mid Term): 40 marks End-Term Evaluation: 60 marks	
Suggested Readings		**Text Book** • Damodaran, A (2006) *"Damodaran on Valuation"*, 2nd Edition, Wiley India, New Delhi • Pandey IM (2018) ,*Financial Management*, 11th Edition, Vikash Publishing • Business Valuation by Vikash Goel, Bloomsbury • Business Valuation by Pitabas Mohanty, Taxman **Reference Books** • Penman, S (2007): *"Financial Statement Analysis & Security Valuation"*, 3rd edition Tata McGraw-Hill, • Palepu, et al (2007): **"Financial Statement Analysis and Business Valuation"**, 3rd edition Cengage Publications, New Delhi, • Wild, et al (2007) **"Financial Statement Analysis",** 9th edition Tata McGraw-Hill, New Delhi,	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2

No.		Teaching method	Assessment	Bloom's Level
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, Case analysis, role play and activity	Case analysis and designing some games	5
5.	CO5	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4
Business Valuation	**CO1**	3	2	2	2	3	-	-	3	2	3	3
	CO2	3	2	3	3	3	-	-	3	1	3	3
	CO3	3	3	2	2	2	-	-	3	2	2	2
	CO4	3	2	3	3	3	-	-	3	1	3	3
	CO5	3	3	2	2	2	-	-	3	2	2	2
	CO(Average of non-zero entry)	**3**	**2.4**	**2.4**	**2.4**	**2.6**	**-**	**-**	**3**	**1.6**	**2.6**	**2.6**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Investment Management
Course Code		**PEC 402**
Course Type		**Program Elective**
Course Credit		**3**
Semester		**IV**
Aims and Objectives		To equip the students with essential tools, techniques, models and investment theory necessary for analysing different types of securities, making sound investment decisions and optimal portfolio choice.
Course Outcome (CO)		At the end of this course, participants would be able to: CO 1: Understand investment environment for Indian investor for various avenues of investment CO2: Apply modern portfolio theories in constructing efficient portfolio. CO3: Analyze asset pricing model to maximize returns and minimize risk. CO4: Evaluate appropriate investment strategies related to Equity Investment. CO5: Design strategies related to evaluate performance of portfolios
Pre-Requisite		None

Course Outline		Description	CO Mapping
		Module I- Introduction to Investment Management Concept of Investment. Investment Process. Avenues of Investments. Investment Environment. Approaches to make Investment. Investment Philosophies and Wisdom.	CO1
		Module II-Equity Investments Fundamental Analysis, Technical Analysis,. Active and Passive strategies of equity investment, Market Efficiency & Anomalies	CO2
		Module III- Modern Portfolio Theories Efficient Portfolio Theory, Portfolio Formulation. Portfolio Optimization. Leveraged Portfolios and Separation Theorem. Simple Portfolio Formulation using Index model.	CO3
		Module IV- Asset Pricing Standard Capital Asset Pricing Model. Extensions of Capital Asset Pricing Model. Arbitrage Pricing Theory. Active Portfolio Management.	CO4
		Module V- and Portfolio Evaluation Portfolio Performance Evaluation, Portfolio Management Strategies & Analysis	CO5
Evaluation		• Internal Assessment : 40 Marks • End Semester Assessment : 60 Marks	
References		**Text Books** • Bodie, et al. (2009). *Investments.* McGraw Hill. • Chandra, P. (2017). Investment *Analysis and Portfolio*	

| | | *Management*. Tata McGraw Hill.
• Elton, E. and Gruber (2010). *Modern Portfolio Theory and Investment Analysis*. John Wiley and Sons.

References Books
• Fischer, Donald E. and Ronald, J. Jordan (2007). *Security Analysis and Portfolio Management*. PHI Learning.
• Hull, J. C. and Basu (2016). *Options, Futures and Other Derivatives*. Pearson.
• Reilly, Frank K. and Brown, Keith C. (2012). *Investment Analysis and Portfolio Management*. Cengage Learning.
• Tripathi, V. (2015). *Security Analysis and Portfolio Management*. Taxmann. |

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
4.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
Investment Management	**CO1**	3	2	2	2	3	-	-	3	2	3	2
	CO2	3	2	3	3	2	-	-	3	1	3	2
	CO3	3	2	2	2	3	-	-	3	2	3	2
	CO4	3	2	3	3	2	-	-	3	1	3	2
	CO5	3	2	2	2	3	-	-	3	2	3	2
	CO (Average of non-zero entry)	**3**	**2**	**2.4**	**2.4**	**2.6**	**-**	**-**	**3**	**1.8**	**3**	**2**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		Behavioral Finance and Engineering
Course Code		PEC 403
Course Type		Program Elective
Course Credit		3
Semester		IV
Course Objectives		**The objectives of the course are:** • To familiarize the students on behavioral factors influencing financial markets and corporate world. • To introduce students to an alternate framework for understanding price discovery in the markets • To help students identify persistent or systematic behavioral factors that influence investment behavior
Course Outcome (CO)		**Upon successful completion of the course a student will be able:** CO1: Understand Perception, Human preferences, rationality, and market efficiency CO2: Apply external factors and investor behavior CO3: Analyze behavioral factors and financial markets. CO4: Evaluate Emotions and decision-making, the science of neuroeconomics CO5: Develop decision-making skill using scientific economics and financial approach
Pre-Requisite		Fundamentals of Finance and Capital Market

Course Outline		Description	CO Mapping
		UNIT 1: Perception, Human preferences, Rationality, and Market Efficiency Cognitive information perception. Representativeness, anchoring, asymmetric perception of gains and losses, framing and other behavioural effects. Decision-making under risk and uncertainty. Expected utility as a basis for decision-making. Rationality from an economics and evolutionary perspective. Investor rationality and market efficiency.	**CO1**
		UNIT 2: Behavioral Factors and Financial Markets Fundamental information and financial markets. Information available for market participants and market efficiency. Market predictability. The concept of limits of arbitrage. Asset management and behavioural factors. Active portfolio management: return statistics and sources of systematic underperformance.	**CO2**

		UNIT 3: External Factors and Investor Behavior	
		Weather, emotions, and financial markets: sunshine, geomagnetic activity. Mechanisms of the external factor influence on risk perception and attitudes. Connection to human psychophysiology and emotional regulation. Misattribution as a mechanism for externals factors influence. Emotional content of news articles and their correlation with market dynamics. Social trends and market dynamics: music, fashion, demographics.	**CO3**
		UNIT 4: Behavioral Corporate Finance	
		Behavioral factors and corporate decisions on capital structure and dividend policy. Timing of good and bad corporate news announcement. Mergers and acquisitions and the Winner"s Curse. IPO under-pricing. Systematic excessive optimism and overconfidence in managers" decisions. Sunk costs and mental accounting. Evolutionary explanations for behavioural effects.	**CO4**
		UNIT 5: Emotions and Decision-making, the Science of Neuro-economics	
		Emotional mechanisms in modulating risk-taking attitude. Neurophysiology of risk-taking. Personality traits and risk attitudes in different domains. Neurophysiology of decision-making, the role of hormones and neurotransmitters. Cognitive neuroscience aiding the investment style.	**CO4, CO5**
Evaluation		**Continuous Evaluation** Internal Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project, Mid Term): 40 marks **End-Term Evaluation:** 60 marks	
Suggested Readings		**Text books:** 1. Pompian, Michael M (2012). *Behavioural Finance and Wealth Management: How to Build Optimal Portfolios That Account for Investor Biases*. 2nd ed. John *Wiley* & Sons: USA. 2. Ackert, L & Deaves R (2010). *Behavioural Finance: Psychology, Decision-Making and Markets*. 1st ed. South-Western, Cengage Learning: USA. **References:** 1. Statman, Meir (2010). *What Investors Really Want: Discover What Drives Investor Behaviour and Make Smarter Financial Decisions*. McGraw Hill: USA. 2. Nofsinger, John R (2013). *The Psychology of Investing*. 5th ed. Pearson education: USA. 3. Burton, Edwin & Shah, Sunit (2013). *Behavioural Finance: Understanding the Social, Cognitive, and Economic Debates*. Wiley: India.	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
	CO1	3	2	2	1	3	-	-	3	2	3	2
	CO2	3	2	3	3	2	-	-	3	1	3	3
	CO3	3	3	2	2	3	-	-	3	2	2	2
	CO4	3	3	3	3	2	-	-	3	3	3	3
Behavioral Finance and Engineering	CO5	3	3	3	3	2	-	-	3	3	3	3
	CO (Average of non-zero entry)	**3**	**2.6**	**2.6**	**2.4**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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Course Name		International Financial Management	
Course Code		PEC 404	
Course Type		Program Elective	
Course Credit		3	
Semester		IV	
Course Objectives		The objectives of the course are: • To acquaint the students with the conceptual framework of the key decision areas in multinational business finance. • To understand Functions and how Foreign Exchange Markets work, Theories of Foreign Exchange Rate Movements and International Parity Conditions. • Determine the Cost of Capital and Capital Structure for a Multinational Firm, Problems and Issues in Foreign Investment Analysis, Calculating NPV, IRR and APV for Foreign Investment Decisions. • Understanding the Management of Cash for a Multinational Firm, Techniques of Country Risk Assessment.	
Course Outcome (CO)		After completing this course, students should be able to: CO 1: To understand Globalization and its importance for the Multinational Financial Manager CO 2: To develop the skills to make analysis of foreign exchange market. CO 3: To apply Currency derivatives in hedging risk associated with multinational transactions. CO 4: To analyse approaches to Project Planning, Project Preparation and Project Management. CO 5: To design strategies for evaluating Multi National Firms	
Pre-Requisite		Corporate Finance	
Course Outline		Description	CO Mapping

		Module- I – Introduction International Financial Management	CO1
		Overview of International Finance Overview of Forex Market Calculation of Exchange Rate	
		Module- II – Foreign Exchange Markets	CO2
		Foreign Exchange Rate Determination ,Purchasing Power Parity and Interest Rate Parity Foreign, Exchange Exposures Balance of Payment and International Monetary System	
		Module-III – Management of Foreign Exchange Risk- Translation Exposure, Comparison of Four Translation Methods, Transaction Exposure- Measurement and Management of Transaction Exposure, Economic Exposure- Transaction Exposure Versus Economic Exposure. Currency Derivatives- Forward, Futures, Options and Swaps	CO3
		Module- IV- Financial Management of the Multinational Firm- Cost of Capital and Capital Structure of the Multinational Firm, Cost of Capital for MNCs v/s Domestic firms, International experiences on Cost of Capital, Multinational Capital Budgeting: Problems and issues in Foreign Investment Analysis, Techniques of Multinational Capital Budgeting- NPV, IRR, APV.	CO4
		Module- V- Multinational Cash management- Centralized perspective of Cash Flow Analysis, Techniques to Optimize Cash Flow- Leading and Lagging, Netting, Matching. Country Risk Analysis- Nature of Country Risk Assessment, Techniques to assess Country Risk, Raters of Country Risk.	CO5
Evaluation		**Continuous Evaluation** Internal Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project, Mid Term): 40 marks **End-Term Evaluation:** 60 marks	
Suggested Readings		**Text Book:** • Shapiro Alan C (2008*), "Multinational Financial Management* ", 8th Edition, Wiley	

Facilitating the achievement of Course Learning Outcomes

Module No.	Course Intended Learning Outcomes (CILO)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Concept questions and Quiz	2
2.	CO2	Lecture, presentation and activity.	Case-based learning, Critical Thinking exercise, Case Lets and Case studies, Quiz,	3
3.	CO3	Lecture, Case analysis Understanding the theories related to current pandemic	Real life understanding of Pandemic and economics	4
4.	CO4	Lecture, discussion, case studies, presentation	Presentation	4
5.	CO5	Lecture, discussion, case studies, presentation	Presentation	5

Bloom's Taxonomy:
Level 1: Remembering
Level 2: Understanding
Level 3: Applying
Level 4: Analyzing
Level 5: Evaluating
Level 6: Creating

CO , PO & PSO MAPPING:

Course Code and Course Name	COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
Economics of pandemic	CO1	3	2	2	2	3	-	-	3	2	3	3
	CO2	3	2	3	3	3	-	-	3	1	3	3
	CO3	3	3	2	2	2	-	-	3	2	2	2
	CO4	3	3	3	3	2	-	-	3	3	3	3
	CO5	3	3	3	3	2	-	-	3	3	3	3
	CO (Average of non-zero entry)	3	2.6	2.6	2.5	2.5	-	-	3	2.2	2.8	2.8

Correlation level 1, 2 and 3 as defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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MA/MSC. IN FINANCIAL ECONOMICS

Programme Structure and Syllabus

Effective from Academic Session - 2023-24

Approved by Board of Studies
Held On 04 May 2023

Revised After Academic Council Meeting
Held on 09 September 2023

Department of Economics
Birla School of Social Sciences and Humanities
Birla Global University
IDCO Plot - 2, Gothapatna,
Bhubaneswar -751029, Odisha

CONTENT

1.1 Vision, Mission and Core Values of the University

Vision of the University

To create and disseminate knowledge in global context while pursuing Excellence, Innovations and Inclusiveness.

Mission of the University

- To globalize through international collaborations and exchange of students and faculty.

- To strive for excellence in teaching and research.

- To continuously innovate pedagogy and course content.

- To encourage diversity and inclusiveness.

Core Values

- **HONESTY AND INTEGRITY** – We believe in being truthful and adhering to the highest ethical standards in personal and professional conduct.

- **EMPATHY** – We recognize the needs of human development and respect diverse social, cultural and economic perspectives.

- **TRANSPARENCY** – We believe in openness and assume responsibility as well as accountability in all our dealings and actions.

- **FREEDOM** – We value the freedom of thought and expression to develop one's creativity and innovation in pursuit of academic excellence.

- **RESPECT** – We foster a culture of respecting self and others.

- **COLLABORATION** – We encourage teamwork and partnership in all endeavors for knowledge creation, acquisition and dissemination.

1.2 Vision and Mission of the School: Birla School of Social Sciences and Humanities

Vision of the School

To be a globally reputed institute in humanities and social science teaching, research and consultancy fostering innovation and entrepreneurship for developing socially responsible leaders. To create and disseminate knowledge pursuing excellence with ethics for inclusive social development

Mission of the School

M1. Imparting global standard quality teaching and developing research orientation for understanding social issues for providing effective policy solution.

M2. Collaborate with International institutions and institutes of repute for multidisciplinary students and faculty exchange for fostering cutting edge research in wider learning environment.

M3. Regularly updating course content with innovative pedagogy of teaching and learning

M4. Preparing and encouraging students for handling diverse problems addressing inclusiveness.

About the program

Name of the program: Master of Arts/Science in Financial Economics (MA/MSc. in Financial Economics)

Award of degree: Students having bachelor degree in science will be awarded MSc. in Financial Economics and others will be awarded MA in Financial Economics

Duration of Programme : Two years (Four Semesters) full time program.

Eligibility for admission: Graduate with 50 per cent mark in aggregate with statistics/ mathematics as a paperat the graduate level and the admission test as stipulated by the university from time to time.

1.3 Programme Educational Objectives (PEOs)

1.3.1 Programme Educational Objectives

PEO-1 Students will have proficiency in applying economic and financial concept for solving practical problem.

PEO-2 Graduates will apply the empirical skill and can choose diverse careers option in different functional area of finance and economics.

PEO-3 Student will develop a positive attitude, interpersonal and leadership skills of the students through co-curricular and extracurricular activities.

PEO-4 Graduates will establish themselves as successful global professionals by solving real-life problems using scientific knowledge and analytical skills gained in the field of finance and economics.

PEO-5 The graduates will practice moral values, professional ethics and social responsibilities while performing their duties to provide solutions to global problems.

1.3.2 Mapping of PEOs with School Mission Statements

PEO Statements	School Mission 1	School Mission 2	School Mission 3	School Mission 4
PEO1:	3	2	3	2
PEO2:	1	3	2	2
PEO3:	2	2	2	2
PEO4:	3	3	2	1
PEO5:	3	1	1	3

Correlation level 1, 2 and 3 as defined below:

"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

1.3.3 Programme Outcomes (POs)

Students of all undergraduate general degree Programmes at the time of graduation will be able to:

POs	Attributes	Explanation
PO1	Critical Thinking	Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO2	Effective Communication	Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO3	Social Interaction	Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO4	Effective Citizenship	Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO5	Ethics	Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO6	Environment and Sustainability:	Understand the issues of environmental contexts and sustainable development.
PO7	Self-directed and Life-long Learning	Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.
PSO1		Understand the economic theory and practices
PSO2		Apply appropriate skills for solving economic and financial problems
PSO3		Analyze economic and financial data for decision making
PSO4		Evaluate and implement sustainable financial intervention

1.3.4 Mapping of Program Outcome Vs Program Educational Objectives

Mapping	PEO1	PEO2	PEO3	PEO4	PEO5
PO1	3	3	2	1	2
PO2	-	-	-	-	-
PO3	3	3	3	-	2
PO4	3	3	2	-	2
PO5	2	3	2	-	2
PO6	1	2	3	3	2
PO7	1	1	1	2	2

PSO1	3		2		2		1			2		
PSO2	2		3		3		2			1		
PSO3	3		2		1		2			1		
PSO4	1		2		1		2			3		

Correlation level defined below:
"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

1.3.5 Program Outcome Vs. Courses Mapping Table

Course Code	Course Name	COs	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO2	PSO3	PSO 4
Semester I													
MFEC -101	Microeconomics	CO101.1	2	2	2	1	1	-	-	3	2	3	3
		CO101.2	3	2	2	1	1	-	-	3	3	3	3
		CO101.3	3	1	2	1	1	-	-	3	2	3	2
		CO101.4	3	1	1	1	1	-	-	3	2	3	3
		CO101.5	3	1	1	1	1	-	-	3	2	3	3
		Average	**2.8**	**1.4**	**1.6**	**1**	**1**	-	-	3	**2.2**	**3**	**2.8**
MFEC102	Statistics	**CO201.1**	1	2	3	1	1	-	-	3	2	3	2
		CO201.2	3	2	3	1	1	-	-	3	1	3	2
		CO201.3	1	2	3	1	1	-	-	3	2	3	2
		CO201.4	3	2	3	1	1	-	-	3	1	3	2
		CO201.5	3	2	3	1	1	-	-	3	1	3	2
		Average	**2.2**	**2**	**3**	**1**	**1**	**-**	**-**	**3**	**1.4**	**3**	**2**
MFEC103	Mathematical Economics	CO102.1	2	1	1	1	1	-	-	3	2	3	3
		CO102.2	2	2	2	1	1	-	-	3	3	3	2
		CO102.3	3	1	1	1	1	-	-	3	2	3	2
		CO102.4	3	1	1	1	1	-	-	3	3	3	3
		CO102.5	3	1	1	1	1	-	-	3	3	3	3
		Average	**2.6**	**1.2**	**1.2**	**1**	**1**	-	-	3	**2.6**	3	**2.6**
MFEC104	Financial Management	CO225.1	2	2	1	1	1	-	-	3	2	3	1
		CO225.2	2	2	1	1	1	-	-	3	3	2	1

Course Code	Course Name	CO											
		CO225.3	3	1	1	1	1	-	-	3	2	3	3
		CO225.4	3	1	1	1	1	-	-	3	3	3	3
		CO103.5	3	1	1	1	1	-	-	3	3	3	3
		Average	**2.6**	**1.4**	**1**	**1**	**1**	**-**	**-**	**3**	**2.6**	**2.8**	**2.2**
MFEC105	Financial Institutions and Markets	CO225.1	2	2	2	1	1	-	-	3	2	3	2
		CO225.2	2	2	3	3	1	-	-	3	1	3	2
		CO225.3	2	3	2	2	1	-	-	3	2	2	2
		CO225.4	2	3	3	3	1	-	-	3	3	3	2
		CO104.5	2	3	3	3	1	-	-	3	3	3	2
		Average	**2**	**2.6**	**2.6**	**2.4**	**1**	**-**	**-**	**3**	**2.2**	**2.8**	**2**

Semester II

Course Code	Course Name	CO											
MFEC 201	Macroeconomics	CO102.1	2	1	1	1	1	-	-	3	2	3	3
		CO102.2	2	2	2	1	1	-	-	3	3	3	2
		CO102.3	3	1	1	1	1	-	-	3	2	3	2
		CO102.4	3	1	1	1	1	-	-	3	3	3	3
		CO102.5	3	1	1	1	1	-	-	3	3	3	3
		Average	**2.6**	**1.2**	**1.2**	**1**	**1**	**-**	**-**	3	**2.6**	3	**2.6**
MFEC202	Basic Econometrics	**CO202.1**	2	1	1	1	1	-	-	3	2	3	2
		CO202.2	2	1	2	1	1	-	-	3	3	3	2
		CO202.3	3	1	2	1	1	-	-	3	2	3	2
		CO202.4	3	1	2	1	1	-	-	3	3	2	3
		CO202.5	3	1	2	1	1	-	-	3	3	2	3
		Average	**2.4**	**1**	**1.8**	**1**	**1**	**-**	**-**	**3**	**2.6**	**2.6**	**2.4**
MFEC203	Financial Statement Analytics	CO225.1	2	2	2	1	1	-	-	3	2	3	2
		CO225.2	2	2	3	3	1	-	-	3	1	3	2
		CO225.3	2	3	2	2	1	-	-	3	2	2	3
		CO225.4	2	3	3	3	1	-	-	3	3	3	2
		CO225.5	2	2	3	3	1	-	-	3	1	3	2
		Average	2	**2.6**	**2.6**	**2.4**	**1**	**-**	**-**	**3**	**2.2**	**2.8**	**1.4**
MFEC204	Financial Technology and Computatio	CO225.1	2	2	2	1	1	-	-	3	2	3	2
		CO225.2	2	2	3	3	1	-	-	3	1	3	1
		CO225.3	2	3	2	2	1	-	-	3	2	2	2
		CO225.4	2	3	3	3	1	-	-	3	3	3	3
		CO204.5	2	3	3	3	1	-	-	3	3	3	3

Course	Name	CO											
	nal Finance Using R and Excel	**Average**	2	**2.6**	**2.6**	**2.4**	**1**	**-**	**-**	**3**	**2.6**	**2.8**	**2.2**
MFEC205	Research Methodology	CO225.1	1	1	2	1	1	-	-	3	3	2	3
		CO225.2	2	3	3	1	1	-	-	3	3	2	3
		CO225.3	2	1	1	1	1	-	-	3	3	2	2
		CO225.4	3	1	1	1	1	-	-	3	3	2	3
		CO204.5	3	1	1	1	1	-	-	3	3	2	3
		Average	**2.2**	**1.4**	**1.6**	**1**	**1**	**-**	**-**	**3**	**3**	**2**	**2.8**
		Semester III											
MFECSI	Summer Internship	CO225.1	3	3	2	2	3	3	2	2	3	3	2
		CO225.2	3	3	3	2	3	3	2	2	3	3	2
		CO225.3	3	3	3	2	3	3	2	2	3	3	2
		CO225.4	3	3	3	2	3	3	2	2	3	3	2
		CO225.5	3	3	3	2	3	3	2	2	3	3	2
		Average	3	3	3	2	3	3	2	2	3	3	2
MFEC301	International trade and operation	CO225.1	3	3	2	1	1	-	-	3	2	3	2
		CO225.2	2	2	3	1	1	-	-	3	3	2	1
		CO225.3	2	2	2	1	1	-	-	3	2	3	2
		CO225.4	2	3	2	1	1	-	-	3	2	2	3
		CO225.5	2	3	2	1	1	-	-	3	2	2	3
		Average	**2.2**	**2.6**	**2.2**	**1**	**1**	**-**	**-**	**3**	**2.2**	**2.4**	**2**
MFEC302	Applied Financial Econometrics	CO225.1	3	1	1	1	1	-	-	3	2	3	2
		CO225.2	2	1	1	1	1	-	-	3	3	2	2
		CO225.3	2	2	1	1	1	-	-	3	2	3	3
		CO225.4	3	2	1	1	1	-	-	3	3	3	3
		CO302.5	3	2	1	1	1	-	-	3	3	3	3
		Average	**2.6**	**1.6**	**1**	**1**	**1**	**-**	**-**	**3**	**2.6**	**2.6**	**2.6**
MFEC303	Innovation and Venture Capital	CO225.1	2	2	2	1	1	-	-	3	2	3	2
		CO225.2	2	2	3	3	1	-	-	3	3	3	1
		CO225.3	2	3	2	2	1	-	-	3	2	2	2
		CO225.4	2	3	3	3	1	-	-	3	3	3	3
		CO303.5	2	3	3	3	1	-	-	3	3	3	3
		Average	**2**	**2.6**	**2.6**	**2.4**	**1**	**-**	**-**	**3**	**2.5**	**2.8**	**2.2**
	Elective Option-	CO225.1	3	2	2	2	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	3	-	-	3	1	3	1
		CO225.3	3	3	2	2	2	-	-	3	2	2	2

PEC 1& 2	1, Insurance and Risk Management	CO225.4	3	3	3	3	1	-	-	3	3	3	3
		CO301.5	3	3	3	3	1	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.6**	**2**	**-**	**-**	**3**	**2.2**	**2.8**	**2**
	Elective Option-2 Banking Operations and Management	CO225.1	3	2	2	1	2	-	-	3	2	3	2
		CO225.2	3	2	3	3	2	-	-	3	1	3	1
		CO225.3	3	3	2	2	1	-	-	3	2	2	2
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO302.5	3	3	3	3	2	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.4**	**1.8**	**-**	**-**	**3**	**2.2**	**2.8**	**2.2**
	Elective Option -3 Financial Derivatives	CO225.1	3	2	2	2	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	1	-	-	3	1	3	1
		CO225.3	3	3	2	2	2	-	-	3	2	2	2
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO303.5	3	3	3	3	2	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.5**	**2**	**-**	**-**	**3**	**2.2**	**2.8**	**2.2**
	Elective Option -4 Game Theory and Applications	CO225.1	3	2	2	2	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	2	-	-	3	1	3	1
		CO225.3	3	3	2	2	2	-	-	3	2	2	2
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO304.5	3	3	3	3	2	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.5**	**2.2**	**-**	**-**	**3**	**2.2**	**2.8**	**2.2**
Semester IV													
MFED	Dissertation	CO225.1	3	3	2	2	3	3	2	2	3	3	2
		CO225.2	3	3	3	2	3	3	2	2	3	3	2
		CO225.3	3	3	3	2	3	3	2	2	3	3	2
		CO225.4	3	3	3	2	3	3	2	2	3	3	2
		CO225.5	3	3	3	2	3	3	2	2	3	3	2
		Average	3	3	3	2	3	3	2	2	3	3	2
MFEC 401	Public Finance and Sustainability	CO225.1	3	2	2	2	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	3	-	-	3	1	3	3
		CO225.3	3	3	2	2	2	-	-	3	2	2	2
		CO225.4	3	3	3	3	1	-	-	3	3	3	3
		CO401.5	3	3	3	3	1	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.5**	**2.25**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
		CO225.1	3	2	2	2	3	-	-	3	2	3	2

Course	Course Name	CO											
MFEC 402	Strategic Financial Management	CO225.2	3	2	3	3	2	-	-	3	1	3	2
		CO225.3	3	3	2	2	3	-	-	3	2	2	3
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO402.5	3	3	3	3	2	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.5**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
PEC- 3&4	Elective Option 1 - Business Valuations	CO225.1	3	2	2	2	3	-	-	3	2	3	-
		CO225.2	3	2	3	3	3	-	-	3	1	3	-
		CO225.3	3	3	2	2	2	-	-	3	2	2	-
		CO225.4	3	2	3	3	3	-	-	3	1	3	3
		CO225.5	3	3	2	2	2	-	-	3	2	2	2
		Average	**3**	**2.4**	**2.4**	**2.4**	**2.6**	**-**	**-**	**3**	**1.6**	**2.6**	**2.6**
	Elective Option 2 - Investment Management	CO225.1	3	2	2	2	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	2	-	-	3	1	3	2
		CO225.3	3	2	2	2	3	-	-	3	2	3	2
		CO225.4	3	2	3	3	2	-	-	3	1	3	2
		CO225.5	3	2	2	2	3	-	-	3	2	3	2
		Average	**3**	**2**	**2.4**	**2.4**	**2.6**	**-**	**-**	**3**	**1.8**	**3**	**2**
	Elective Option 3- Behavioral Finance and Engineering	CO225.1	3	2	2	1	3	-	-	3	2	3	2
		CO225.2	3	2	3	3	2	-	-	3	1	3	3
		CO225.3	3	3	2	2	3	-	-	3	2	2	2
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO225.5	3	3	3	3	2	-	-	3	3	3	3
		Average	**3**	**2.6**	**2.6**	**2.4**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
	Elective Option 4- Economics of Pandemic	CO225.1	3	2	2	2	3	-	-	3	2	3	3
		CO225.2	3	2	3	3	3	-	-	3	1	3	3
		CO225.3	3	3	2	2	2	-	-	3	2	2	2
		CO225.4	3	3	3	3	2	-	-	3	3	3	3
		CO225.5	**3**	**2.6**	**2.6**	**2.5**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.8**
		Average	**3**	**2.6**	**2.6**	**2.5**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.8**

1.3.6 COURSE ARTICULATION MATRIX

Year		Course Code Course Name & COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
I	SEMESTER -I	MFEC 101 Microeconomics	2.8	1.4	1.6	1	1	-	-	3	2.2	3	2.8
		MFEC 102 Statistics	2.2	2	3	1	1	-	-	3	1.4	3	2
		MFEC 103 Mathematical Economics-	2.6	1.4	1	1	1	-	-	3	2.6	2.8	2.2
		MFEC 104 Financial Management	2	2.6	2.6	2.4	1	-	-	3	2.2	2.8	2
		MFEC105 Financial Institutions and Markets	2.6	1.4	1	1	1	-	-	3	2.6	2.8	2.2
	SEMESTER -II	MFEC 201 Macroeconomics	2.6	1.2	1.2	1	1	-	-	3	2.6	3	2.6
		MFEC 202 Basic Econometrics	2.4	1	1.8	1	1	-	-	3	2.6	2.6	2.4
		MFEC 203 Financial Statement Analytics	2	2.4	2.6	2.4	1	-	-	3	1.8	2.8	2.2
		MFEC 204 Financial Technology and Computational Finance Using R and Excel	2	2.6	2.6	2.4	1	-	-	3	2.6	2.8	2.2
		MFEC 205 Research Methodology	2.2	1.4	1.6	1	1	-	-	3	3	2	2.8
II	SEMESTER -III	MFECSI Summer internship	3	3	3	2	3	3	2	2	3	3	2
		MFEC301 International Trade and Operations	2.2	2.6	2.2	1	1	-	-	3	2.2	2.4	2
		MFEC302 Applied Financial Econometrics	2.6	1.6	1	1	1	-	-	3	2.6	2.6	2.6
		MFEC303 Innovation and Venture Capital	2	2.6	2.6	2.4	1	-	-	3	2.5	2.8	2.2
		Elective Option-1, Insurance and Risk Management	3	2.6	2.6	2.6	2	-	-	3	2.2	2.8	2
		Elective Option-2 Banking Operations and Management	3	2.6	2.6	2.4	1.8	-	-	3	2.2	2.8	2.2

		Elective Option -3 Financial Derivatives	**3**	**2.6**	**2.6**	**2.5**	**2**	**-**	**-**	**3**	**2.2**	**2.8**	**2.2**
		Elective Option -4 Game Theory and Applications	**3**	**2.6**	**2.6**	**2.5**	**2.2**	**-**	**-**	**3**	**2.2**	**2.8**	**2.2**
	SEMESTER -IV	MFED Dissertation	3	3	3	2	3	3	2	2	3	3	2
		MFEC 401 Public Finance and Sustainability	**3**	**2.6**	**2.6**	**2.5**	**2.25**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
		MFEC 402 Strategic Financial Management	**3**	**2.6**	**2.6**	**2.5**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
		PEC- 3&4 Elective Option 1 Business Valuations	**3**	**2.4**	**2.4**	**2.4**	**2.6**	**-**	**-**	**3**	**1.6**	**2.6**	**2.6**
		Elective Option 2 Investment Management	**3**	**2**	**2.4**	**2.4**	**2.6**	**-**	**-**	**3**	**1.8**	**3**	**2**
		Elective Option 3 Behavioural Finance and Engineering	**3**	**2.6**	**2.6**	**2.4**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.6**
		Elective Option 4- International Financial Management	**3**	**2.6**	**2.6**	**2.5**	**2.5**	**-**	**-**	**3**	**2.2**	**2.8**	**2.8**

Correlation level 1, 2 and 3 as defined below:

"1" – Slight (Low)
"2" – Moderate (Medium)
"3" – Substantial (High)
"-" – No correlation

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