

# **Department of Economics**

## **B.Sc. (Hons.) Economics**

### **Curriculum and Syllabus**

*(Applicable to the students admitted from AY: 2023 onwards)*



**Easwari School of Liberal Arts**  
**SRM University AP, Andhra Pradesh**



### **Department Vision**

To develop globally oriented individuals who can adopt a multi-dimensional approach and solve the complex issues impacting business and society.

### **Department Mission**

1. Provide high academic rigor and an inspiring environment to individuals to realize their true potential and sculpt them into future economists.
2. Cater to the growing market demand for professional economists and policy researchers.
3. Develop socially inclusive and responsible individuals and enable them to analyze and solve real-world economic issues.

### **Program Educational Objectives (PEO)**

1. Along with acquiring content knowledge, students in each course will practice critical thinking skills, communication skills, quantitative reasoning, and economic citizenry.
2. To prepare them to pursue higher studies and conduct research.
3. To train them and build their careers where they are likely to make a long-lasting contribution in either policy making or research career.

### **Mission of the Department to Program Educational Objectives (PEO) Mapping**

	PEO 1	PEO 2	PEO 3
Mission Statement 1	3	2	2
Mission Statement 2	2	3	3
Mission Statement 3	3	2	1

### **Program Specific Outcomes (PSO)**

1. To solve real-life problems by using economic theory and applications.
2. Analyse data to solve complex economic problems.
3. Application of economic theories and concepts to contemporary social issues, and formulation and analysis of policy outcomes.

### **Mapping Program Educational Objectives (PEO) to Program Learning Outcomes (PLO)**

Program Learning Outcomes (PLO)															
PEOs	POs												PSOs		
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
PEO 1	3	2	3	2	-	-	-	-	-	-	-	-	3	2	1
PEO 2	2	3	3	2	3	-	-	-	-	-	1	3	1	2	3
PEO 3	3	1	1	1	-	2	-	1	-	3	1	-	2	3	1



Category Wise Credit Distribution			
Course Sub-Category	Sub-Category Credits	Category Credits	Learning Hours
Ability Enhancement Courses (AEC)		9	270
University AEC	4		
School AEC	5		
Value Added Courses (VAC)		8	240
University VAC	8		
School VAC	0		
Skill Enhancement Courses (SEC)		15	450
School SEC	4		
Department SEC	5		
SEC Elective	6		
Foundation/ Interdisciplinary courses (FIC)		22	660
School FIC	22		
Department FIC	0		
Core + Core Elective including Specialization (CC)		84	2520
Core	76		
Core Elective (Inc Specialization)	8		
Minor (MC) + Open Elective (OE)	15	15	450
Research / Design / Internship/ Project (RDIP)			600
Internship / Design Project / Startup / NGO	6	20	
Internship / Research / Thesis	14		
<b>Total</b>		<b>173</b>	<b>5190</b>

Semester wise Course Credit Distribution Under Various Categories										
Category	Semester									
	I	II	III	IV	V	VI	VII	VIII	Total	%
Ability Enhancement Courses - AEC	2	2	2	2	0	0	0	0	9	5
Value Added Courses - VAC	2	2	0	0	0	4	0	0	8	5
Skill Enhancement Courses - SEC	2	2	3	2	3	3	0	0	15	9
Foundation / Interdisciplinary Courses - FIC	14	8	0	0	0	0	0	0	22	13
CC / SE / CE / TE / DE / HSS	0	4	16	16	16	16	16	0	84	49
Minor / Open Elective - OE	0	3	3	3	3	3	0	0	15	9
(Research/ Design/ Industrial Practice/Project/Thesis/Internship) -RDIP	0	0	2	0	4	0	0	14	20	12
<b>Grand Total</b>	<b>20</b>	<b>21</b>	<b>26</b>	<b>24</b>	<b>26</b>	<b>26</b>	<b>16</b>	<b>14</b>	<b>173</b>	<b>100</b>

**Note: L-T/D-P/Pr and the class allocation is as follows.**

- a)** Learning Hours : 30 learning hours are equal to 1 credit.
- b)** Lecture/Tutorial : 15 contact hours (60 minutes each) per semester are equal to 1 credit.
- c)** Discussion : 30 contact hours (60 minutes each) per semester are equal to 1 credit.
- d)** Practical : 30 contact hours (60 minutes each) per semester are equal to 1 credit.
- e)** Project : 30 project hours (60 minutes each) per semester are equal to 1 credit.

SEMESTER - I								
S. No	Category	Sub-Category	Course Code	Course Title	L	T/D	P/Pr	C
1	AEC	U AEC	AEC 101	Art of Listening, Speaking and Reading Skills	1	0	1	2
2	VAC	U VAC	VAC 101	Environmental Science	2	0	0	2
3	SEC	S SEC	SEC 102	Digital Literacy	1	1	0	2
4	FIC	S FIC	FIC 101	Emerging Technologies	2	0	0	2
5	FIC	S FIC	FIC 121	Understanding Human Minds	3	0	1	4
6	FIC	S FIC	FIC 122	Understanding the Indian Constitution.	3	0	1	4
7	FIC	S FIC	FIC 123	Understanding Indian Society(ies): Myths and Realities	3	1	0	4
Semester Total					15	2	3	20

SEMESTER - II								
S. No	Category	Sub-Category	Course Code	Course Title	L	T/D	P/Pr	C
1	AEC	U AEC	AEC 107	Effective Writing and Presentation Skills	1	0	1	2
2	VAC	U VAC	VAC 102	Universal Human Values and Ethics	2	0	0	2
3	SEC	S SEC	SEC 103	Entrepreneurial Mindset	2	0	0	2
4	FIC	S FIC	FIC 115	Economics in Everyday Life	4	0	0	4
5	FIC	S FIC	FIC 116	Data Analytics for Social Sciences	4	0	0	4
6	Core	CC	ECO 101	Mathematical Methods for Economics-I	4	0	0	4
7	Elective	OE		Open Elective / Minor	3	0	0	3
Semester Total					20	0	1	21

SEMESTER - III								
S. No	Category	Sub-Category	Course Code	Course Title	L	T/D	P/Pr	C
1	AEC	U AEC	AEC 104	Creativity and Critical thinking Skills	1	0	1	2
2	VAC	U VAC	VAC 103	Co-Curricular Activities	0	0	2	2*
3	VAC	U VAC	VAC 104	Community Service and Social Responsibility	0	0	2	2*
4	SEC	D SEC	SEC 114	Analytical Reasoning and Aptitude Skills - Basics	0	2	1	3
5	Core	CC	ECO 201	Introduction to Statistics	4	0	0	4
6	Core	CC	ECO 202	Introductory Microeconomics	4	0	0	4
7	Core	CC	ECO 203	Introductory Macroeconomics	4	0	0	4
8	Core	CC	ECO 204	Mathematical Methods for Economics-II	4	0	0	4
9	Elective	OE		Open Elective / Minor	3	0	0	3
10	RDIP	RDIP	ECO 209	Summer Immersion	0	0	2	2
Semester Total					21	1	8	26

SEMESTER - IV								
S. No	Category	Sub-Category	Course Code	Course Title	L	T/D	P/Pr	C
1	AEC	U AEC	AEC 108	Problem Solving Skills	1	0	1	2
2	VAC	U VAC	VAC 103	Co-Curricular Activities	0	0	2	2*
3	VAC	U VAC	VAC 104	Community Service and Social Responsibility	0	0	2	2*
4	SEC	D SEC	SEC 108	Social Entrepreneurship	2	0	0	2
5	Core	CC	ECO 205	Intermediate Microeconomics	4	0	0	4
6	Core	CC	ECO 206	Intermediate Macroeconomics	4	0	0	4
7	Core	CC	ECO 207	Public Economics and Policies	4	0	0	4
8	Core	CC	ECO 208	Growth and Development	4	0	0	4
9	Elective	OE		Open Elective / Minor	3	0	0	3
Semester Total					22	0	5	23

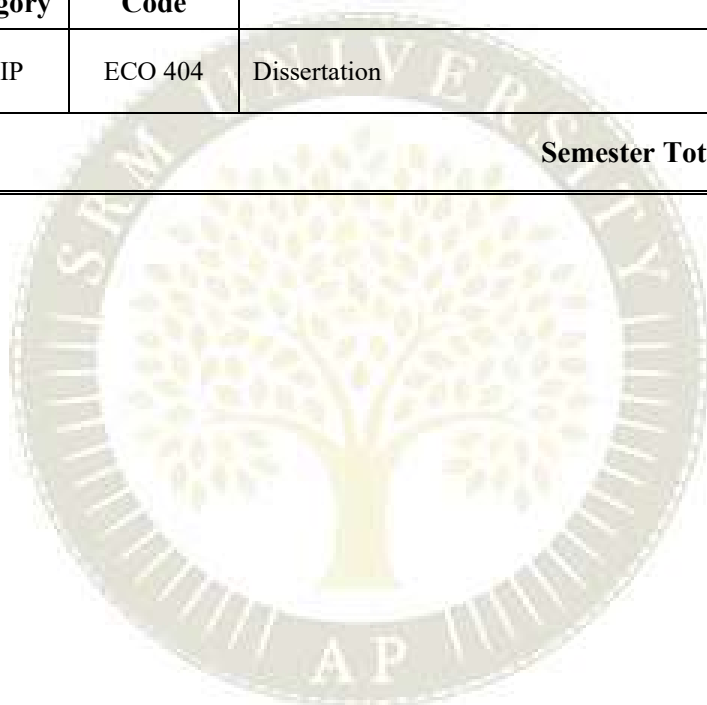


SEMESTER - V								
S. No	Category	Sub-Category	Course Code	Course Title	L	T/D	P/Pr	C
1	VAC	U VAC	VAC 103	Co-Curricular Activities	0	0	2	2*
2	VAC	U VAC	VAC 104	Community Service and Social Responsibility	0	0	2	2*
3	SEC	E SEC		Career Skills - I	3	0	0	3
4	Core	CC	ECO 301	Introductory Econometrics	4	0	0	4
5	Core	CC	ECO 302	Financial Economics	4	0	0	4
6	Core	CC	ECO 303	Indian Economy	4	0	0	4
7	Elective	CE	CE	Core Elective	4	0	0	4
8	Elective	OE		Open Elective / Minor	3	0	0	3
9	RDIP	RDIP	ECO 304	Internship	0	0	4	4
Semester Total					22	0	8	26

SEMESTER - VI								
S. No	Category	Sub-Category	Course Code	Course Title	L	T/D	P/Pr	C
1	VAC	U VAC	VAC 103	Co-Curricular Activities	0	0	2	2
2	VAC	U VAC	VAC 104	Community Service and Social Responsibility	0	0	2	2
3	SEC	E SEC		Career Skills - II	3	0	0	3
4	Core	CC	ECO 305	Advanced Econometrics	4	0	0	4
5	Core	CC	ECO 306	Environmental Economics and Policies	4	0	0	4
6	Core	CC	ECO 307	International Economics	4	0	0	4
7	Elective	CE	CE	Core Elective	4	0	0	4
8	Elective	OE		Open Elective / Minor	3	0	0	3
Semester Total					22	0	4	26

SEMESTER - VII								
S. No	Category	Sub-Category	Course Code	Course Title	L	T/D	P/Pr	C
1	Core	CC	ECO 401	Time Series Econometrics	4	0	0	4
2	Core	CC	ECO 402	Industrial Organization	4	0	0	4
3	Core	CC	ECO 403	Research Methodology	4	0	0	4
4	Core	CC	ECO 405	Economic Growth	4	0	0	4
Semester Total					16	0	0	16

SEMESTER - VIII								
S. No	Category	Sub-Category	Course Code	Course Title	L	T/D	P/Pr	C
1	RDIP	RDIP	ECO 404	Dissertation	0	0	14	14
Semester Total					0	0	14	14



Core Electives								
S. No	Category	Sub-Category	Course Code	Course Title	L	T/D	P/Pr	C
1	Elective	CE	ECO 421	Behavioural Economics	4	0	0	4
2	Elective	CE	ECO 422	Labour Economics	4	0	0	4
3	Elective	CE	ECO 423	Health Economics	4	0	0	4
4	Elective	CE	ECO 425	Theories of Growth	4	0	0	4
5	Elective	CE	ECO 426	Classical Political Economy	4	0	0	4
6	Elective	CE	ECO 427	Industrial Economics	4	0	0	4
7	Elective	CE	ECO 428	Law and Economics	4	0	0	4
8	Elective	CE	ECO 429	Agricultural Economics	4	0	0	4
9	Elective	CE	ECO 431	Game Theory	4	0	0	4
10	Elective	CE	ECO 424	Money, Banking and Finance	4	0	0	4

Minor in Economics								
S. No	Category	Sub-Category	Course Code	Course Title	L	T/D	P/Pr	C
1	OE	OE	ECO 241	Basic Statistics	3	0	0	3
2	OE	OE	ECO 242	Economics of Innovation	3	0	0	3
3	OE	OE	ECO 243	Introduction to Financial Economics	3	0	0	3
4	OE	OE	ECO 244	Fundamentals of Time Series	3	0	0	3
5	OE	OE	ECO 245	Central Banks and Monetary Policy	3	0	0	3
6	OE	OE	ECO 246	Evolution of Money and Banking	3	0	0	3
7	OE	OE	ECO 247	Environmental Economics	3	0	0	3
8	OE	OE	ECO 248	Contemporary Economics Issues	3	0	0	3
9	OE	OE	ECO 249	The Art and Science of Economic Policy	3	0	0	3
10	OE	OE	ECO 250	Entrepreneurship in Emerging Economies	3	0	0	3
11	OE	OE	ECO 251	Understanding of Market and Economy	3	0	0	3
12	OE	OE	ECO 252	Economic Development of India	3	0	0	3
13	OE	OE	ECO 253	Trade and Globalization	3	0	0	3

Career Skill Courses								
S. No	Category	Sub-Category	Course Code	Course Title	L	T/D	P/Pr	C
1	SEC	E SEC	SEC 122	Fintech	3	0	0	3
2	SEC	E SEC	SEC 145	Understanding India's Economic Survey and Union Budget	3	0	0	3



### The Art of Listening, Speaking and Reading Skills

Course Code	AEC 101	Course Category					L	T	P	C
							1	0	1	2
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)						
Course Offering Department	Literature and Languages	Professional / Licensing Standards								

#### Course Objectives / Course Learning Rationales (CLRs)

- To develop and enhance students' proficiency in listening, speaking, and reading skills,
- To help the participants understand the purpose and differentiate various types of audience.
- To prepare the students to produce Language in various contexts be it Oral or Written form.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Develop advanced listening skills, to comprehend and respond to a wide range of spoken language varieties, accents, and contexts with increased accuracy and fluency.	2	90%	90%
<b>Outcome 2</b>	Articulate ideas and thoughts clearly and effectively in both informal and formal settings, utilizing appropriate vocabulary, grammar, and speech delivery techniques.	3	90%	90%
<b>Outcome 3</b>	Enhance their reading comprehension and critical analysis abilities, enabling them to understand complex texts, extract key information, and critically evaluate the content within various genres and subjects.	3	70%	70%
<b>Outcome 4</b>	Engage in effective and meaningful conversations, demonstrating improved listening skills, oral communication abilities, and comprehension of written texts, thereby enhancing their overall language proficiency and communication competence	2	60%	60%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1					1	1		3	2	3		3			
Outcome 2					1	1			1	3		3			
Outcome 3					1	1			1	3		2			
Average					1	1			1	3	3	3			

**Course Unitization Plan**

<b>Unit No.</b>	<b>Unit Name</b>	<b>Required Contact Hours</b>	<b>CLOs Addressed</b>	<b>References Used</b>
<b>Unit 1</b>	<b>Augmenting Listening skills</b>	<b>9</b>		
	Course introduction and objectives: Importance of LSRW	1	1	1 a
	Listening - Barriers to active listening and steps to Overcome	2	1	1 b
	Listening Comprehension How to take/ make notes (different ways)	2	1	1b, 2a, 2c
	Listening practice: Identifying main ideas, supporting details, and inferences and summarizing key points	2	1	1b, 2a, 2c
	Practice sessions: memory games, Chinese whisper	2	1	NA
<b>Unit 2</b>	<b>Developing Speaking Skills</b>	<b>9</b>		
	Strategies for good speech, Basics of grammatically correct speech	1	2	1a, 2 a, b, c
	Basics of phonetics and intonation	2	2	1a
	Oral presentations: do's and don'ts	1	2	1a
	Speaking Practice: Just a minute/ Impromptu, Story-telling/ Story starters Group discussions,	5	2	NA
<b>Unit 3</b>	<b>Communication and Persuasion</b>	<b>9</b>		
	Verbal Communication and Nonverbal Communication	2	2, 3	1a
	The art of persuasive communication (Ethos, pathos, Logos)	2	2, 3	1a
	Practice sessions (Convince the other Role plays, Self-introduction, Pitching, extempore, public speaking)	5	2, 3	NA
<b>Unit 4</b>	<b>Reading</b>	<b>9</b>		
	Reading strategies (Skimming and scanning, extensive and intensive)	2	2	1c
	Reading and analyzing various texts, including articles, essays, and academic papers	3	2	1c
	Reading Comprehension Practice	4	2	1c, 2a
<b>Unit 5</b>	<b>Integrated Skills and Real-World Application</b>	<b>9</b>		
	Engaging in discussions and debates on current issues	2	3	NA
	Real-world application of language skills (e.g., job interviews, social interactions)	2	3	NA
	Pitching Presentation	5	3	NA
	Total contact hours	45		
	Notional hours	15		
	<b>Total Learning Hours</b>	<b>60</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (60%)				End Semester Project (40%)
		CLA-1 20%	Mid-1	CLA-2 20%	CLA-3 20%	
Level 1	Remember	20%			40%	30%
	Understand					
Level 2	Apply	60%		40%	40%	30%
	Analyse					
Level 3	Evaluate	20%		60%	20%	40%
	Create					
Total		100%		100%	100%	100%

### Recommended Resources

1a. Shoba, L. (2017). Communicative English: A Workbook. U.K: CambridgeUniversity Press.

1b. Leonardo, N. (2020) Active Listening Techniques: 30 Practical Tools to Hone Your Communication Skills. Rockridge Press

1c. Williams, A.J. (2014) Reading Comprehension: How To Drastically Improve Your Reading Comprehension and Speed Reading Fast! (Reading Skills, Speed Reading)

2a. <https://learnenglishteens.britishcouncil.org/>

2b. <https://www.bbc.co.uk/learningenglish/>

2c. <https://www.ted.com/?geo=hi>

### Other Resources

1. -

### Course Designers

1. -

### Environmental Science

Course Code	VAC 101	Course Category	Value Added Course		L	T	P	C
					2	0	0	2
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Environmental Science and Engineering	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To describe the environmental concepts from ecology and earth science to address real-world problems.
- To interpret the complex interactions within and between environmental systems and to evaluate evolving environmental problems

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Comprehend the environmental challenges that need attention.	1	80%	70%
<b>Outcome 2</b>	Summarize the types of environmental pollutions and possible effects to society	2	80%	70%
<b>Outcome 3</b>	Classify the natural environmental resources, present state, rate of depletion and future perspectives	2	80%	70%
<b>Outcome 4</b>	Articulate a project-based learning on existing local to global environmental issues	2	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	1	-	1	1	-	1	1	1	2	1	-	1	-	-	-
Outcome 2	1	-	1	1	-	1	2	1	2	1	-	1	-	-	-
Outcome 3	1	-	1	2	1	1	3	2	2	1	-	1	-	-	-
Outcome 4	1	-	1	2	2	1	3	3	2	2	1	1	-	-	-
Average	1	-	1	1.5	1.5	1	2.25	1.75	2	1.25	1	1	-	-	-



**Course Unitization Plan**

Unit No.	Syllabus Topics	Required Contact Hours	CLOs Addressed	References Used
<b>Unit 1</b>	<b>Human, Environmental Issues, and Climate Change</b>	<b>6</b>	<b>1</b>	<b>1,2,3</b>
	The man-environment interaction	1	1	1,2,3
	Environmental issues and scales	1	1	1,2,3
	Land use and Land cover change	2	1	1,2,3
	Ozone layer depletion	1	1	1,2,3
	Understanding climate change and adaptation	1	1	1,2,3
<b>Unit 2</b>	<b>Environmental Pollution and Health</b>	<b>7</b>	<b>2</b>	<b>1,2,3</b>
	Understanding pollution; Definitions, sources, impacts on human health and ecosystem	2	2	1,2,3
	Air pollution	1	2	1,2,3
	Water pollution	1.5	2	1,2,3
	Soil pollution	1	2	1,2,3
	Solid waste	1.5	2	1,2,3
<b>Unit 3</b>	<b>Ecosystems, Biodiversity Conservation, and Sustainable Development</b>	<b>9</b>	<b>3</b>	<b>1,2,3</b>
	Ecosystems and ecosystem services	1	3	1,2,3
	Biodiversity and its distribution	1	3	1,2,3
	Threats to biodiversity and ecosystems	1	3	1,2,3
	Overview of natural resources	1	3	1,2,3
	Biotic resources	1	3	1,2,3
	Water resources; Soil and Energy resources	2	3	1,2,3
	Introduction to Sustainable Development Goals (SDGs)- targets and indicators	2	3	1,2,3
<b>Unit 4</b>	<b>Environmental Management, Treaties and Legislation</b>	<b>8</b>	<b>4</b>	<b>1,2,3</b>
	Introduction to environmental laws and regulation	2	4	1,2,3
	Environmental management system	2	4	1,2,3
	Pollution control and management	2	4	1,2,3
	Major International Environmental Agreements; Major Indian Environmental Legislations	2	4	1,2,3
<b>Total Contact Hours</b>		<b>30</b>		

### Learning Assessment

Bloom’s Level of Cognitive Task		Continuous Learning Assessments (50 %)								End Semester Exam (50 %)	
		CLA-1 (15 %)		CLA-2 (15 %)		CLA-3 ( __%)		Mid Term (20 %)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	60%		40%				40%		30%	
	Understand										
Level 2	Apply	40%		60%				60%		70%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%				100%		100%	

### Recommended Resources

1. Rajagopalan, R. (2016) Environmental Studies (3rd edition), Oxford University Press.
2. Sharma, P. D. (2018) Ecology and environment. Rastogi Publications.
3. Anil K. Dey. (2016). Environmental Chemistry. New Age Publisher International Pvt Ltd. ISBN: 9789385923890, 9385923897

### Other Resources

1. -

### Course Designers

### Digital Literacy

Course Code	SEC 102	Course Category	SEC	L	T	P	C
				1	1	0	2
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)			
Course Offering Department	ITKM	Professional / Licensing Standards					

#### Course Objectives / Course Learning Rationales (CLRs)

1. Introduce basic digital skills that are needed in today's 21st century work environment.
2. develop the skills that they need to effectively integrate technology into their respective professional practices.
3. Learn practical-oriented and will have a lot of hands-on exercises.
4. Understand basic and practical digital skills.
5. learn and use software and hardware systems, including the basic troubleshooting.
6. Learn issues pertaining to emerging technologies and creating digital identity in various platforms.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Discuss the importance of Digital Literacy	2	75%	80%
<b>Outcome 2</b>	Compare and Contrast collaborative features in digital platforms	3	70%	70%
<b>Outcome 3</b>	Create digital identity profile on LinkedIn	3	75%	75%
<b>Outcome 4</b>	Demonstrate best practices of digitally managed workspace on MS office 365 and G Suite	3	70%	75%
<b>Outcome 5</b>	Identify relevant information from authentic data sources	3	70%	75%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1					3	3		1	2	3		3			
Outcome 2					3	3		1	2	3		3			
Outcome 3					3	3		1	2	3		3			
Outcome 4					3	3		1	2	3		3			
Outcome 5					3	3		1	2	3		3			
Average					3	3		1	2	3		3			

**Course Unitization Plan**

Unit No.	Syllabus Topics	Required Contact Hours	COs Addressed	References Used
<b>Unit No. 1</b>	<b>Introduction - Digital Literacy</b>	<b>2</b>	<b>1</b>	1,2,3
	About Digital Literacy	0.5	1	1,2,3
	Importance of digital literacy	0.5	1	1,2,3
	Overview of Computing Systems and Platforms	0.5	1	1,2,3
	Digital Proficiency for Career prospects and Everyday living	0.5	1	1,2,3
<b>Unit No. 2</b>	<b>Know your computer</b>	<b>3</b>	<b>1</b>	1,2,3
	Types of computing	0.5	1	1,2,3
	Accessories & peripherals	0.5	1	1,2,3
	System upkeep & maintenance	0.5	1	1,2,3
	Basic Troubleshooting	0.5	1	1,2,3
	Operating Systems	1	1	1,2,3
<b>Unit No. 3</b>	<b>Microsoft Office Automation software</b>	<b>5</b>	<b>4</b>	1,2,3
	Word Processing	1	4	1,2,3
	Excel - Data Analysis	1	4	1,2,3
	PowerPoint Presentations	1	4	1,2,3
	Digital software tools	1	4	1,2,3
	Best practices	1	4	1,2,3
<b>Unit No. 4</b>	<b>Google Automation Software</b>	<b>3.5</b>	<b>4</b>	1,2,3
	Word Processing	1	4	1,2,3
	Spreadsheet	1	4	1,2,3
	Presentations	1	4	1,2,3
	Best practices	0.5	4	1,2,3
<b>Unit 5</b>	<b>Digital Communication tools</b>	<b>4</b>	<b>2</b>	1,2,3
	Emails Systems - Gmail, MS Outlook, Zimbra, etc	0.5	2	1,2,3
	Calendar Functionality	0.5	2	1,2,3
	Drive - Access Permissions - Best practices	1	2	1,2,3
	Chat functionality and Use	1	2	1,2,3
	Zoom, MS Teams, Google meet, Jiomeet,	1	2	1,2,3
<b>Unit No. 6</b>	<b>Network and Internet</b>	<b>3</b>	<b>1</b>	1,2,3
	Basics of Network	1	1	1,2,3
	Types of browsers, Safety measures, bookmarks	1	1	1,2,3
	Search engines	1	1	1,2,3
<b>Unit No. 7</b>	<b>Digital Identity for Professional Connect activities</b>	<b>5</b>	<b>3</b>	1,2,3
	Social media	1	3	1,2,3
	Dos and Don'ts handling Social Media Accounts	2	3	1,2,3
	Digital Profile	3	3	1,2,3
<b>Unit No. 8</b>	<b>Cybersecurity</b>	<b>1.5</b>	<b>1</b>	1,2,3
	Introduction to Cybersecurity	0.5	1	1,2,3
	Strategies to protect the personal and professional data	0.5	1	1,2,3
	Awareness on various Cyber Attacks	0.5	1	1,2,3
	Security measures for Email, Personal computing systems		1	1,2,3
<b>Unit No. 9</b>	<b>Information and Data Literacy</b>	<b>4</b>	<b>5</b>	1,2,3
	Information & Data Mining Strategies	1	5	1,2,3
	Online resources	2	5	1,2,3
	Understanding on Plagiarism	1	5	1,2,3
<b>Total Contact Hours</b>		<b>30</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (60%)				End Semester Exam (40%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	CLA-3 (15%)	
Level 1	Remember	70%	40%	30%	30%	30%
	Understand					
Level 2	Apply	30%	60%	70%	70%	70%
	Analyse					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

### Recommended Resources

1. Digital Literacy (20210401) Kindle Edition by Mandy Reininger (Author), Darrel Karbginsky (Author) Format: Kindle Edition
2. Digital Literacies: Concepts, Policies and Practices (New Literacies and Digital Epistemologies) New Edition by Colin Lankshear (Editor), Michele Knobel (Editor)
3. Read the World: Rethinking Literacy for Empathy and Action in a Digital Age Illustrated Edition by Kristin Ziemke (Author), Katie Muhtaris (Author)

### Other Resources

### Course Designers

### Emerging Technologies

Course Code	FIC 101	Course Category	FIC		L	T	P	C
					2	0	0	2
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	ECE	Professional / Licensing Standards						

### Course Objectives / Course Learning Rationales (CLRs)

- Foster a comprehensive grasp of diverse emerging technologies and their transformative impacts on society and industries.
- Cultivate critical thinking skills to analyze challenges, opportunities, and applications within each technological domain.
- Develop practical skills through hands-on experiences and assignments, translating theoretical concepts into real-world applications.
- Raise awareness of ethical considerations, particularly in the context of Artificial Intelligence, and Machine Learning, IoT, Electric Vehicles, and Semiconductor Technology.

### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Exhibit a thorough understanding of quantum computing principles, including superposition, entanglement, and interference.	1	80%	90%
<b>Outcome 2</b>	Illustrate understanding by explaining the history, synthesis, and applications of nanomaterial and green hydrogen.	1	80%	90%
<b>Outcome 3</b>	Understand and classify 3D printing technologies.	2	75%	85%
<b>Outcome 4</b>	Demonstrate understanding of the evolution, classification, and applications of UAVs.	2	75%	85%
<b>Outcome 5</b>	Apply knowledge of Artificial Intelligence and Machine Learning, IoT, Electric Vehicles, and Semiconductor Technology.	2	75%	85%

### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary	Analytical Reasoning and	Critical and Reflective	Scientific Reasoning and	Research Related Skills	Modern Tools and ICT	Environment and	Moral, Multicultural	Individual and Teamwork	Communication Skills	Leadership Readiness	Self-Directed and Lifelong	PSO 1	PSO 2	PSO 3
Outcome 1	2	1	2	2	3	2	2	2	1	2	2	1	1	1	1
Outcome 2	2	1	1	2	3	1	2	2	2	2	2	1	1	1	1
Outcome 3	2	2	2	3	3	3	1	1	3	2	2	1	1	2	2
Outcome 4	2	2	2	2	3	3	2	2	3	2	2	1	2	2	1
Outcome 5	3	2	3	2	2	3	3	2	3	2	2	1	2	2	1
Average	2	2	2	2	3	2	2	2	2	2	2	1	2	2	1

**Course Unitization Plan**

<b>Unit No.</b>	<b>Syllabus Topics</b>	<b>Required Contact Hours</b>	<b>CLOs Addressed</b>	<b>References Used</b>
<b>Unit No. 1</b>	Quantum Computer and early ideas, classical and quantum computing approaches, superposition, entanglement, and interference in quantum computing.	1	1	1
	QUBITS and their types; representation of data in quantum mechanics.	1	1	1
	Shor's Algorithm, Grover's search algorithm.	1	1	1
	Quantum programming languages; Obstacles in building quantum computers.	1	1	1
	Applications of quantum computers; Opportunities in the field of quantum computing.	1	1	1
	Introduction of quantum communication pillars, quantum network, Heisenberg's uncertainty principle and QKD.	1	1	1
	Challenges in QKD, National Quantum Mission, Future perspectives.	1	1	1
<b>Unit No. 2</b>	Introduction to the nanometer scale. history of nanomaterials	1	2	2
	Synthesis of nanomaterials: Bottom-up and Top-down approach	1	2	2
	Tools & techniques to characterize nanomaterials. Applications of nanomaterials.	1	2	2
	Green Technology: Definition, types of Green Technologies, Green Hydrogen production.	1	2	2
	Challenges involved in the storage of Green Hydrogen produced from PEM based electrolysis.	1	2	2
	Applications of Green Hydrogen.	1	2	2
<b>Unit No. 3</b>	Introduction to 3D printing and additive manufacturing	1	3	3
	Capabilities of 3D printing	1	3	3
	Applications of 3D printing	1	3	3
	Classification based on ASTM	1	3	3
	Working principles of 3D printing technologies	1	3	3
<b>Unit No. 4</b>	Introduction to the evolution of drones	1	4	4
	Classification of drones	1	4	4
	Basic components of drones	1	4	4
	Principles of flight	1	4	4
	Applications of drones	1	4	4
	Drones rules in India, Challenges and future scope.	1	4	4
<b>Unit No. 5</b>	Introduction to Artificial Intelligence, Machine Learning, and Deep learning; applications	1	5	5
	Introduction to the Internet of Things (IoT)	1	5	6
	Applications of IoT	1	5	6
	Basic architecture of the Electric Vehicles (EVs)	1	5	7
	Trends and challenges in EVs	1	5	7
	Introduction to semiconductor mission and chip fabrication	1	5	8

## Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (100%)				
		CLA-1 20%	CLA-2 20%	CLA-3 20%	CLA-4 20%	CLA-5 20%
Level 1	Remember	90 %	90 %	80 %	75 %	85 %
	Understand					
Level 2	Apply	10 %	10 %	20 %	25 %	15 %
	Analyse					
Level 3	Evaluate	0%	0%	0%	0%	0%
	Create					
Total		100%	100%	100%	100%	100%

## Recommended Resources

1. Quantum Computation and Quantum Information by Michael A. Nielsen, Isaac L. Chuang, 2010.
2. Nanotechnologies: Principles, Applications, Implications and Hands-on Activities – A compendium for educators by Luisa Filipponi and Duncan Sutherland, European Commission Research and Innovation, 2013.
3. Additive manufacturing: Principles, Technologies and applications by C.P. Paul and A.N. Jinoop, 2021.
4. Make: Getting Started with Drones - Build And Customize Your Own Quadcopter by Terry Kilby and Belinda Kilby, 2016.
5. Artificial Intelligence: A Modern Approach by Stuart Russell and Peter Norvig, 2010.
6. Fundamentals of Internet of Things: For Students and Professionals by F. John Dian, 2022.
7. Electric Vehicle Engineering by Per Enge, Nick Enge, and Stephen Zoepf, 2021.
8. Fundamentals of Semiconductor Manufacturing and Process Control by Gary S. May and Costas J. Spanos, 2006.

## Course Designers

1. Dr. Sunil Chinnadurai, Associate Professor, ECE Department.
2. Dr. Pardha Saradhi Maram, Associate Professor, Chemistry Department.
3. Dr. Sangjukta Devi, Assistant Professor, Mechanical Engineering Department.
4. Dr. Harish Puppala, Assistant Professor, Civil Engineering Department.
5. Dr. Pranav RT Peddinti, Assistant Professor, Civil Engineering Department.
6. Dr. Ravi Kumar, Assistant Professor, Physics Department.
7. Dr. Sujith Kalluri, Associate Professor, ECE Department.



### Understanding Human Minds

Course Code	FIC 121	Course Category				
			L	T	P	C
			3	0	1	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)		
Course Offering Department	Psychology	Professional / Licensing Standards				

#### Course Objectives / Course Learning Rationales (CLRs)

- To understand the different approaches to the study of psychology
- To understand the fundamental processes underlying human behaviour
- To make applications of various psychological concepts

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Explain various perspectives in psychology	2	80%	70%
<b>Outcome 2</b>	Understand the fundamental psychological processes	2	70%	65%
<b>Outcome 3</b>	Apply the understanding in different settings and contexts	4	75%	60%
<b>Outcome 4</b>	Understand and differentiate the basic theories in Psychology and its applications	5	70%	60%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	1							1					3		
Outcome 2		2	2	1		1		1				1		3	
Outcome 3		2	2	2			2	2	1	1	1	2		2	2
Outcome 4	2	2		2	2	2		1	2	2	2	2			3
Average	1.5	2	2	2	2	1.5	2	1.5	1.5	1.5	1.5	2	3	2.5	2.5

**Course Unitization Plan**

Unit No.	Unit Name	Required Contact Hours	CLOs Addressed	References
<b>Unit 1</b>	<b>Nature of Psychology</b>		1 & 2	2
	Definition and goals of psychology	3		
	Nature of Psychology: Art or science	3		
	Traditional schools of thought in psychology	6		
<b>Unit 2</b>	<b>Sensation and Perception</b>		1, 3 & 4	1 & 3
	Sensation and its types	3		
	Absolute and differential threshold; Signal detection theory	3		
	Perception: Understanding perception, Gestalt laws of organization	3		
	Perceptual constancy, depth perception, perception of movement	3		
<b>Unit 3</b>	<b>Motivation</b>		1 & 3	1 & 3
	Definition and types (Intrinsic and Extrinsic motivation)	3		
	Psychological aspects of various forms of motivation (Physiogenic motives, Psychogenic motives, Sociogenic motives)	3		
	Theories of motivation: drive theory, arousal theory, expectancy theory, goal-setting theory, Maslow's hierarchy of needs	6		
<b>Unit 4</b>	<b>Emotion</b>		2 & 3	1 & 2
	Definition and types of emotions	3		
	Autonomic Nervous System (ANS) and Emotions	3		
	Expression of emotions	3		
	Correlates of emotions: cognition and culture	3		
<b>Unit 5</b>	<b>Intelligence</b>		1 & 2	1 & 2
	Definitions and nature of intelligence	3		
	Theories of intelligence: Cattell's theory of intelligence, Spearman's two-factor theory, Thurstone's mental ability, Sternberg's triarchic theory, Gardner's theory of multiple intelligences	6		
	Measuring intelligence and tests of intelligence	3		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 15%	Mid-1 15%	CLA-2 10%	CLA-3 10%	
Level 1	Remember	50%	60%	60%	30%	50%
	Understand					
Level 2	Apply	50%	40%	40%	70%	50%
	Analyse					
Level 3	Evaluate					
	Create					
Total			100%	100%	100%	100%

### Recommended Resources

1. Baron, R. A. (2001). Psychology. 5th Ed. New Delhi: Pearson Education India.
2. Nolen-Hoeksema, S., Fredrickson, B.L. & Loftus, G.R. (2014). Atkinson & Hilgard's Introduction to Psychology. 16th Ed. United Kingdom: Cengage Learning.

### Other Resources

1. Morgan, C. T., King, R. A., & Schopler, J. (2004). Introduction to Psychology. New Delhi: Tata McGraw Hill.

### Course Designers

1. Dr Ayesha Parveen Haroon, Assistant Professor, Department of Psychology, Easwari Liberal Arts – SRM- AP

### Understanding the Indian Constitution

Course Code	FIC 122	Course Category	Core Course (CC)		L	T	P	C
					3	0	1	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	History	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To locate the plurality of ideas in the Indian constitution
- To appreciate the importance of dialogue in the making and the extension of the Indian constitution.
- To develop a multidisciplinary approach in understanding the functioning of Indian democracy.
- To critically interrogate the concepts of equality, liberty, justice, and non-discrimination

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Describe the need of having a constitution.	2	80%	70%
<b>Outcome 2</b>	Define the concept of liberty and non-discrimination.	1	90%	80%
<b>Outcome 3</b>	Review key institutions of Indian democracy.	2	80%	70%
<b>Outcome 4</b>	Examine the tradition of consensus and discontent in Indian democracy.	4	70%	60%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	2	1	2	1	2	1	-	2	2	2	2	2	2	2	2
Outcome 2	2	1	2	1	1	1	-	3	2	2	2	2	3	2	3
Outcome 3	2	2	2	1	2	1	-	2	2	2	2	3	2	2	2
Outcome 4	2	2	3	2	3	1	-	3	2	2	2	3	3	2	3
Course Average	2	1.5	2.25	1.25	2	1	-	2.5	2	2	2	2.5	2.5	2	2.5

**Course Unitization Plan**

Unit No.	Syllabus Topics	Required Contact Hours	CLOs Addressed	References Used
<b>Unit No. 1</b>	<b>Making of the Indian Constitution</b>	<b>14</b>	<b>1,2</b>	
	Why do we need a constitution?	2		1,2
	Beginning of constitutionalism in India: Colonial and Anti-colonial legacies	2		2,7
	Locating constituent Assembly debate: Consensus and Discontent.	3		2,3
	Reading the preamble of the Indian constitution.	2		2,6
<b>Unit No. 2</b>	<b>Fundamental Rights and Directive Principles-Ideas of Equality, Justice and Liberty</b>	<b>13</b>	<b>2,3</b>	
	Right to Equality	2		1,7
	Six Freedoms	2		1,5,7
	Religious Freedom	3		4,7
	Minority Rights	2		3,4
	Directive Principles: Goals to establish a social and economic Democracy	2		4,5
	The primacy of Rights over Directive Principles	2		4,7
<b>Unit No. 3</b>	<b>Asymmetrical Federalism: Centre-State Relations</b>	<b>13</b>	<b>3,4</b>	
	What is federalism?	1		3,6
	Constitutional provisions related to federalism	2		3,7
	Relationship between State and Centre	3		3,7
	Deliberative Ambiguities of Indian Federalism	2		1,7
	Special Provisions for Jammu and Kashmir, Himachal Pradesh, Northeastern states, and tribal areas.	3		3,7
	AFSPA and suspension of Indian democracy	2		3,7
<b>Unit No. 4</b>	<b>Foundation of Governance</b>	<b>11</b>	<b>3</b>	
	Division of Power: Legislative, Executive, and Judiciary	3		3,7
	Parliamentary form of government in India	2		3,7
	Government of the Union and Government of the State	3		1,6
	Role of Supreme Court and Judicial Activism in India	3		1,2
<b>Unit No. 5</b>	<b>Constitution as a living document</b>	<b>9</b>	<b>1,4</b>	
	Constitution as a dialogue	2		3,4
	Constitutional Amendments and the basic structure of the Indian Constitution	3		1,3,7
	Insertion of the 9 <sup>th</sup> schedule in the constitution	2		1,5
	The role of the judiciary and citizens in defending, negotiating and interpreting the constitution	2		3,7

### Learning Assessment

Bloom’s Level of Cognitive Task		Continuous Learning Assessments ( __ %)								End Semester Exam (50%)	
		CLA-1 (10%)		CLA-2 (10%)		CLA-3 (10%)		Mid Term (20%)			
		Th	Prac	Th	Prac	Th	Pr.	Th	Prac	Th	Prac
Level 1	Remember	30%		20%				40%		20%	
	Understand	70%		80%				60%		60%	
Level 2	Apply										
	Analyse						100%			20%	
Level 3	Evaluate										
	Create										
Total		100%		100%			100%	100%		100%	

### Recommended Resources

1. Austin, G. (1996). The Indian Constitution: Cornerstone of a Nation, Oxford: OUP.
2. Bhargava, R. (ed) (2008), Ethics and Politics of the Indian Constitution, New Delhi: OUP.
3. Choudhry, S. et al. (2017). The Oxford Handbook of the Indian Constitution, New Delhi: OUP
4. Hassan, Z., Sridharan, E. & Sudarshan, R. (eds). (2002). India's Living Constitution: Ideas Practices, Controversies. New Delhi: Permanent Black.
5. Kannabiran, K. (2012). Tools of Justice: Non- Non-discrimination and the Indian Constitution, Routledge,
6. Kashyap, C.S. (2011). Our Constitution, New Delhi: National Book Trust.
7. Thiruvengadam, K.A. (2017). The Constitution of India: A Contextual Analysis, India: Hart Publishing

### Online Resources

1. Armed Forces (Special Powers) Acts 1958  
([https://www.mha.gov.in/sites/default/files/armed\\_forces\\_special\\_powers\\_act1958.pdf](https://www.mha.gov.in/sites/default/files/armed_forces_special_powers_act1958.pdf))
2. Dr. Ambedkar's Last Speech in the Constituent Assembly on Adoption of the Constitution (November)  
(<https://main.sci.gov.in/AMB/pdf/Closing%20speech%2025%20Nov%201949.pdf>)

### Other Resources

### Course Designers

1. Dr. Maanvender Singh, Assistant Professor, Dept. of History, SRM University-AP.
2. Dr. Aqsa Agha, Assistant Professor, Dept. of History, SRM

### Understanding Indian Society (ies): Myths and Realities

Course Code	FIC 123	Course Category	Core Course (CC)		L	T	P	C
					3	1	0	4
Pre-Requisite Course(s)	NA	Co-Requisite Course(s)	NA	Progressive Course(s)	NA			
Course Offering Department	Liberal Arts	Professional / Licensing Standards	NA					

#### Course Objectives / Course Learning Rationales (CLRs)

- To introduce students to the study of India as a colonial exercise(s) and its critique
- To orient the students towards deconstructing the myth of the Indian village as a homogeneous, unchanging unit and its relationship with the Urban.
- To introduce the students to the building blocks of society in India
- To introduce the idea of centrality of politics in constituting Indian social.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
Outcome 1	Describe and critique colonial study of India	2	70%	80%
Outcome 2	Illustrate a critical understanding of changing Indian villages	2	70%	70%
Outcome 3	Define the nature of stratification in India	2	70%	80%
Outcome 4	Define and analyse the inter relationship between caste, class, gender and tribe in India	2	70%	70%
Outcome 5	Describe and Critical post-colonial Indian Social	2	70%	80%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	2	2	1	3	1	2	3	2	3	2	2	2	3	3
Outcome 2	2	2	2	1	3	1	2	3	2	3	2	2	2	3	3
Outcome 3	2	1	2	1	3	1	2	3	2	3	2	2	3	3	3
Outcome 4	2	2	3	1	3	1	2	3	2	3	2	2	3	3	3
Outcome 5	2	1	2	3	1	1	2	3	2	3	2	2	3	3	3
Average	2.2	1.6	2.2	1.4	2.6	1	2	3	2	3	2	2	2.6	3	3

**Course Unitization Plan**

<b>Unit No.</b>	<b>Unit Name</b>	<b>Required Contact Hours</b>	<b>CLOs Addressed</b>	<b>References Used</b>
<b>Unit 1</b>	<b>Introduction</b>	<b>12</b>	<b>1</b>	
	History, Anthropology and Colonialism			<b>5,10</b>
	Critics of Colonial Constriction of Indian Society and Culture			<b>4,5</b>
<b>Unit 2</b>	<b>Villages Studies and Urban studies in India</b>	<b>12</b>	<b>2</b>	
	Understanding of Indian Villages: Anthropologists and Sociologists			<b>6</b>
	Revisiting Indian village Studies			<b>21, 22</b>
	Key Concepts: Urban, Urbanism and the City			<b>7,14, 19</b>
	Gender and the City			
<b>Unit 3</b>	<b>Social Stratification in India- Caste and Class</b>	<b>14</b>	<b>3</b>	
	Social Stratification			<b>6,7</b>
	The Book View and The Field View of Caste			<b>6,7</b>
	Understanding Class with special reference to the Middle Class in India			<b>6,7,9</b>
<b>Unit 4</b>	<b>Tribes and Nomads</b>	<b>12</b>	<b>4</b>	
	Tribal Cultures			<b>2</b>
	Nomadic and Semi-Nomadic Communities in India			<b>3</b>
	Developmental Policies for Tribes, Nomadic and Semi-Nomadic Communities			<b>2</b>
<b>Unit 5</b>	<b>Indian State and Society</b>	<b>10</b>	<b>5</b>	
	Colonial State and Indian Social			<b>10</b>
	Postcolonial Indian Social			<b>11</b>
	<b>Total contact Hours</b>	<b>60</b>		



## Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid (15%)	CLA-2 (10%)	CLA-3 (15%)	
		Theory	Theory	Theory	Theory	
Level 1	Remember	40%	40%	40%	40%	40%
	Understand					
Level 2	Apply	50%	50%	50%	50%	50%
	Analyse					
Level 3	Evaluate	10%	10%	10%	10%	10%
	Create					
Total		100%	100%	100%	100%	100%

## Recommended Resources

1. Alm, Bjorn. (2010). Creating Followers, Gaining Popularity: leadership Strategies in a Tamil Nadu Village, in Pamela Price and A R Rudd (eds) Power and Influence in India: Bosses, Lords and Captains. Delhi: Routledge: 1-20.
2. Betteille, A. (1991). Society and Politics in India: Essays in a Comparative Perspective: London: The Athlone Press. (Chapter 3, The Concept of Tribes with special reference to India). (pp. 57-78).
3. Bokil, M (2002). De-Notified and Nomadic Tribes: A Perspective. Economic and Political Weekly, 37(2), pp.148–154.
4. Cohn. B.S. (1996). Notes On the History of The Study of Indian Society and Culture. In Structure and Changes in Indian Society (Milton Singer and Bernard S. Cohn eds). Jaipur: Rawat Publication. (pp.1-27).
5. Cohn. B.S. (1996). Colonialism and Its Forms of Knowledge: The British India, New Jersey: Princeton University Press. (Introduction. pp.1-15).
6. Crompton, R. (1998). Class and Stratification: An Introduction to Current Debates. Cambridge: Polity Press, 2nd Edition 5
7. Das, V. Ed. (2003). The Oxford India Companion to Sociology and Social Anthropology, Vol.I and II. Delhi: Oxford University Press (Sections 3 and 9 respectively).6
8. Deshpande, S. (2003). Contemporary India: A Sociological understanding. New Delhi: Penguin Books.7
9. Fernandes, L. (2006). India's New Middle Class: Democratic politics in an Era of Economic Reform. Minnesota: University of Minnesota Press.
10. Fuller C. J. (1977). British India or Traditional India? An Anthropological Problem, Ethnos, 42:3-4, pp.95-12.
11. Gottdiener, M. & Budd, L.( 2005). Key Concepts in Urban Studies. London: Sage Publication.
12. Gupta, D. (Ed.) (1991). Social Stratification. Delhi: Oxford University Press
13. Hansen, T. (2017). On Law, Violence, and Jouissance in India, in Cultural Anthropology, 1 Nov.<https://culanth.org/fieldsights/on-law-violence-and-jouissance-in-india>
14. Harvey, D. (2010). 'The Right to the City: From Capital surplus to Accumulation by Dispossession' in Swapna Banerjee-Guha (ed.): Accumulation by Dispossession: Transformative Cities in the New Global Order (17-32). New Delhi: Sage
15. Jauregui, B. (2014). Provisional Agency in India: Jugaad and Legitimation in India, in American Ethnologist, Vol 41, No 1: 76-91
16. Mani, L. (1989). Contentious Traditions: Debate on Sati in Colonial India, in Sudesh V. & Kumkum, S. (ed) Recasting Women. Delhi: Kali for Women.
17. Metcalf, T. (1995). Ideologies of the Raj (chap 1). New York: Cambridge University Press.
18. Michelutti, L. (2014) Kingship without King in Northern India, In Patronage as Politics in South Asia, Anastasia Piliavsky (Ed) Cambridge University Press: 283-302
19. Patel, S. (2006). 'Introduction' in Sujata Patel and Kushal Deb (eds.): Urban Studies (1-38). New Delhi: Oxford University Press
20. Phadke, S, Khan, S and Ranade, S. (2011). Why Loiter? Women and Risk on Mumbai Streets, New Delhi: Penguin Books

21. Simpson, and Tilche, A and Sbriccoli, T and Jeffery, P and Otten, T (2018) A Brief History of Incivility in Rural Postcolonial India: Caste, Religion and Anthropology. *Comparative Studies in Society and History*, (60) 1, pp 58-89.
22. Srinivas M. N. (1987). *The Indian Village: Myth and Reality*. In *Dominant Caste and Other Essays*. Delhi: Oxford University Press. (pp.1-59).
23. Xaxa. V (1999). Transformation of Tribes in India: Terms of Discourse. *Economic and Political Weekly*, 34(24), pp.1519–1524.
24. Witsoe, J. (2012). Everyday Corruption and the Political Mediation of the Indian State, in *EPW*, Feb 11, Vol. XLVII, No. 6: 47-54

#### **Course Designers**

1. Dr. Bikkur, Assistant Professor, Department of Liberal Arts. ESLA, SRM University, AP.
2. Dr. Ipsita Pradhan, Assistant Professor, Department of Liberal Arts, ESLA, SRM University, AP.
3. Prof. Vishnupad. Dean of Easwari School of Liberal Arts, SRM University, AP.

### Effective Writing and Presentation Skills

Course Code	AEC 107	Course Category					L	T	P	C
			1	0	1	2				
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)						
Course Offering Department	Literature and Languages	Professional / Licensing Standards								

#### Course Objectives / Course Learning Rationales (CLRs)

- Demonstrate proficiency in written communication, including the ability to compose clear, grammatically structured and organized written documents, as well as deliver well-structured and engaging presentations
- Critically analyse and synthesize information from various sources, conduct research, and effectively use evidence to support their arguments in both written assignments and oral presentations, that will enhance their critical thinking and research skills
- Through a combination of theoretical knowledge and practical exercises, the course aims to enhance students' ability to express ideas clearly, engage an audience, and deliver persuasive and impactful messages in both written and spoken formats.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Develop coherent and well-structured written communication by generating clear and concise written content with logical organization, appropriate grammar	2	90%	90%
<b>Outcome 2</b>	Recognize and analyse the expectations of specific target audiences by adjusting tone, language and style to suit the intended purpose of the audience of written communication and tailoring written content to various formats such as reports, essays, emails, and professional correspondence.	3	90%	90%
<b>Outcome 3</b>	Demonstrate confident Public Speaking with the ability to deliver structured, well-organized, and persuasive presentations by employing visual and interactive aids, storytelling techniques.	3	70%	70%
<b>Outcome 4</b>	Develop strong critical thinking and research skills, enabling them to evaluate information critically, synthesize sources effectively, and provide well-reasoned arguments in their written work and presentations.	2	60%	60%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1					1	1		3	2	3		3			
Outcome 2					1	1			1	3		3			
Outcome 3					1	1			1	3		2			
Outcome 4					1	1			1	3	3	3			
Average					1	1		3	1	3	3	3			

**Course Unitization Plan**

<b>Unit No.</b>	<b>Unit Name</b>	<b>Required Contact Hours</b>	<b>CLOs Addressed</b>	<b>References Used</b>
<b>Unit 1</b>	<b>Basics of Grammatically correct writing</b>	<b>9</b>	1	
	SVO	1	1	1a, 2a,b
	Punctuation	3	1	1a, 2a,b
	Articles and Preposition	2	1	1a, 2a, b
	Tense and Apostrophe	1	1	1a, 2a, b
	Subject-Verb-Agreement	2	1	1a, 2a, b
<b>Unit 2</b>	<b>Categories of Writing</b>	<b>9</b>		
	Emails – different types (Official mails : Requesting Leave/ Enquiring vacancy/ Resigning from job/ requesting internship etc.)	3	1, 2	1b, c
	Notice and Agenda,	2	1, 2	1b, c
	Minutes of Meeting	2	1, 2	1b, c
	Paragraph writing	2	1, 2	1b, c
<b>Unit 3</b>	<b>Advanced Writing</b>	<b>9</b>		
	Writing Cover Letters	3	1, 2	1e
	Resume writing	2	1, 2	1d
	SOP, Abstract	2	1, 2	1g
	Project Report Writing	2	1, 2	2, d
<b>Unit 4</b>	<b>Effective Presentation Techniques</b>	<b>9</b>		
	Understanding the elements of successful presentations – Non-verbal communication in presentaions	3	2,3, 4	1f, 2c
	Creating engaging PPTs	2	2,3, 4	1f, 2c
	Structuring presentations for clarity and impact - Logical flow of topics and connected writing in line with storyboard	2	2, 3, 4	1f, 2c
	Handling Questions and Answers	2	2, 3, 4	1f, 2c
<b>Unit 5</b>	<b>Project Based Learning</b>	<b>15</b>		
	Community Based Project	15	1, 2, 3, 4	NA
	<b>Total Learning Hours</b>	<b>60</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments 60%				End Semester Project 40%
		CLA-1 20%	Mid-1	CLA-2 20%	CLA-3 20%	
Level 1	Remember	20%		20%		50%
	Understand					
Level 2	Apply	40%		40%	50%	50%
	Analyse					
Level 3	Evaluate	40%		40%	50%	
	Create					
Total		100%		100%	100%	100%

### Recommended Resources

- 1a) Swan, M. (2005). Practical English usage (Vol. 688). Oxford: Oxford university press.
- 1b) Fenning, C. (2023). Effective Emails: The secret to straightforward communication at work: 1 (Business CommunicationSkills): Sanage Publishing University Press.
- 1c) Talbot, F. (2009). How to Write Effective Business English: The Essential Toolkit for Composing Powerful Letters, Emails and More, for Today's Business Needs. Kogan Page Publishers
- 1d) Yate, M. (2016). Knock'em Dead Resumes: A Killer Resume Gets More Job Interviews! Simon and Schuster.
- 1e) Yate, M. J. (2018). Ultimate Cover Letters: Master the Art of Writing the Perfect Cover Letter to Boost Your Employability (Vol. 5). Kogan Page Publishers.
- 1f) Carnegie, D. (2013). The Art of Public Speaking. Wyatt North Publishing, LLC.
- 2a. <https://learnenglishteens.britishcouncil.org/>
- 2b. <https://www.bbc.co.uk/learningenglish/>
- 2c. <https://www.ted.com/?geo=hi>
- 2d. [https://www.tifr.res.in/~cccf/data/InternDocs/How\\_to\\_write\\_a\\_structured\\_Project\\_Report.pdf](https://www.tifr.res.in/~cccf/data/InternDocs/How_to_write_a_structured_Project_Report.pdf)

### Other Resources

### Course Designers

### Universal Human Values and Ethics

Course Code	VAC 102	Course Category	VAC		L	T	P	C
					2	0	0	2
Pre-Requisite Course(s)	NA	Co-Requisite Course(s)	NA	Progressive Course(s)	NA			
Course Offering Department	Psychology Department	Professional / Licensing Standards	NA					

#### Course Objectives / Course Learning Rationales (CLRs)

- To cultivate deep understanding of human values by teaching students the core principles of universal human values and their significance.
- To promote ethical decision-making skills by equipping the students with the ability to make ethical choices in life, work, and society.
- To foster a diverse and inclusive ethical perspective by sensitizing the students to diversity, equity, inclusion, gender, and cultural differences.
- To highlight the relevance of ethics in society and professions by showcasing the practical importance of ethics in personal, societal, and professional contexts.
- To address common challenges by preparing the students to overcome obstacles to ethical behaviour, fostering a commitment to universal values.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Evaluate the significance of value inputs in formal education and start applying them in their life and profession	1	70%	80%
<b>Outcome 2</b>	Students will foster diverse and inclusive perspectives, contributing to more equitable and harmonious communities and workplaces	2	70%	70%
<b>Outcome 3</b>	Students will be able to apply ethical principles effectively in their personal and professional lives, leading to improved relationships and ethical practices in society	3	60%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1			3		2		2	3	3	1	1	3			
Outcome 2			3		2		1	3	3	1	1	3			
Outcome 3			3		2		2	3	3	1	1	3			
Average			3		2		1.6	3	3	1	1	3			

**Course Unitization Plan**

<b>Unit No.</b>	<b>Syllabus Topics</b>	<b>Required Contact Hours</b>	<b>CLOs Addressed</b>	<b>References Used</b>
<b>Unit 1</b>	<b>Fundamentals of Human Values and Ethics</b>	<b>7</b>	<b>1</b>	<b>1, 2, 3, 4, 5</b>
	Introduction to human values and ethics.	1		
	Theory of wellbeing	2		
	Purpose and relevance of human values	4		
<b>Unit 2</b>	<b>Culture and Ethical Principles</b>	<b>5</b>	<b>2</b>	<b>1, 2, 3, 4, 5</b>
	Culture and ethics.	2		
	Ethics in the community and society	3		
<b>Unit 3</b>	<b>Ethics and Inclusivity</b>	<b>6</b>	<b>2</b>	<b>1, 2, 3, 4, 5</b>
	Ethics and diversity & inclusion	3		
	Equity, equality, and addressing violence	3		
<b>Unit 4</b>	<b>Ethics in various life spheres</b>	<b>6</b>	<b>3</b>	<b>1, 2, 3, 4, 5</b>
	Ethics in family, society, and workplace	4		
	Ethics in IPR and plagiarism	2		
<b>Unit 5</b>	<b>Overcoming ethical challenges</b>	<b>6</b>	<b>3</b>	<b>1, 2, 3, 4, 5</b>
	Identifying common challenges	3		
	Strategies to overcome challenges	3		

**Learning Assessment**

<b>Bloom's Level of Cognitive Task</b>		<b>Continuous Learning Assessments (50%)</b>		
		<b>CLA-1 (10%)</b>	<b>CLA 2 (20%)</b>	<b>CLA-3 (20%)</b>
		<b>Theory</b>	<b>Theory</b>	<b>Theory</b>
Level 1	Remember	50%	50%	50%
	Understand			
Level 2	Apply	50%	50%	50%
	Analyse			
Level 3	Evaluate			
	Create			
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>

### **Recommended Resources**

1. Landau, RS. (2019). Living Ethics. New York: Oxford University Press.
2. Nagarajan, R.S. (2022). A Text book on Professional Ethics and Human Values. New Delhi: New Age International Publisher.
3. Rachels, J., & Rachels, S. (2012). The elements of moral philosophy 7e. McGraw Hill.
4. Singer, P. (1986). Applied Ethics. Oxford: Oxford University Press.
5. Gensler, H., Spurgin, E., & Swindal, J. (2004). Ethics: contemporary readings. Routledge.

### **Course Designers**

1. Department of Psychology, SLASS, SRM University-AP



### Entrepreneurial Mindset

Course Code	SEC 103	Course Category	SEC	L	T	P	C
				2	0	0	2
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)			
Course Offering Department	Management	Professional / Licensing Standards					

#### Course Objectives / Course Learning Rationales (CLRs)

- To develop the Entrepreneurial Mindset of Students.
- To provide tools and techniques for navigating the uncertain path of entrepreneurship

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Explain the key entrepreneurship and innovation concepts	1	80%	80%
<b>Outcome 2</b>	Explain concepts of Startup Funding and Pitching	1	80%	80%
<b>Outcome 3</b>	Identify Entrepreneurial Opportunity and ideate solutions	2	80%	70%
<b>Outcome 4</b>	Articulate innovative business plans with sound entrepreneurial concepts.	3	70%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1			2				1								
Outcome 2			2						3		3				
Outcome 3		3	3		2				3	2	3	3			
Outcome 4		3	3		2				3		3	3			
Average		1.5	2.5		1		0.25		2.25	0.5	2.25	1.5			

### Course Unitization Plan

Unit No.	Unit Name	Required Contact Hours	CLOs Addressed	References Used
UNIT-1	<b>Introduction to Entrepreneurship</b>	2		
	What and Why of Entrepreneurship		1	1,2
	Need of Entrepreneurship		1	1,2
	Entrepreneurship at SRM-AP		1	1,2
UNIT-2	<b>Entrepreneurial Orientation</b>	4		
	Characteristics of successful entrepreneurs		1,2	1,2
	Mindset shifts: from an employee to an entrepreneur		1,2	1,2
	Overcoming challenges and dealing with failures		1,2	1,2
UNIT-3	<b>Entrepreneurial Skills</b>	4		
	Skillsets of an Entrepreneur		1,2	1,2
	Design Thinking, Growth Mindset		1,2	1,2
	Design Thinking		1,2	1,2
UNIT-4	<b>Entrepreneurial Opportunity &amp; Ideation</b>	2		
	Difference between idea and opportunity		1,2	1,2
	Opportunities in Vibrant Indian Entrepreneurial Ecosystem		1,2	1,2
	Opportunity Recognition (Sources of Opportunity)		1,2	1,2
	Idea Generation		1,2	1,2
UNIT-5	<b>Business Model Canvas</b>	2		
	Why BMC		3	1,2
	Value Proposition		3	1,2
	Customer Discovery		3	1,2
	Customer Relationship		3	1,2
	Channels		3	1,2
	Key Partners		3	1,2
	Key Activities		3	1,2
	Key Resources		3	1,2
	Revenue Structure		3	1,2
	Cost Structure		3	1,2
UNIT-6	<b>Startup Financing &amp; Pitching</b>	2		
	Stages of Fundraising		4	1,2
	Mode of Investment		4	1,2
	Startup Valuation		4	1,2
	From Pitch to Hitch (Pitch Deck)		4	1,2
UNIT-7	<b>Growth Mindset and Sales Ability</b>	2		
	Importance of Sales skill for Entrepreneur		3	1,2
	Sales Techniques		3	1,2
	Developing Growth Mindset		3	1,2
UNIT-8	<b>Developing the Business Plan</b>	12	3,4	1,2
	<b>Total Hours</b>	30		

### Learning Assessment

Bloom's Level of Cognitive Task	Continuous Learning Assessments (100%)			End Semester Exam (40%)
	CLA-1 (10%)	CLA-2 (20%)	CLA-3 (30%)	
Level 1	Remember	20%	20%	100%
	Understand			
Level 2	Apply	80%	80%	
	Analyse			
Level 3	Evaluate			
	Create			
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>

### Recommended Resources

1. Bruce R. Barringer, R. Duane Ireland. Entrepreneurship Successfully Launching New Ventures, Pearson; 2020
2. Robert D. Hasrich, Dean A. Shepherd, Michael P. Peters, Entrepreneurship, McGraw Hill, 2021

### **Other Resources**

1. Best business courses online (n.d.). Coursera. <https://www.coursera.org/browse/business/entrepreneurship>

### **Course Designers**

1. Dr Aftab Alam, Assistant Professor, Paari School of Business, SRM University-AP
2. Mr Udayan Bakshi, Associate Director, Directorate of Entrepreneurship, SRM University-AP

### Economics for Everyday Life

Course Code	FIC 115	Course Category	FIC	L	T	P	C
				4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)			
Course Offering Department	Economics	Professional / Licensing Standards					

#### Course Objectives / Course Learning Rationales (CLRs)

- To obtain an overview of the fundamental concepts of economics.
- To discuss various alternative theories of an economy in the short run, and the role of policy in this context.
- To understand the application of important theories related to an open economy.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Distinguish between different economic systems as they relate to contemporary social, and political contexts.	2	70%	65%
<b>Outcome 2</b>	Apply simple mathematical methods to illustrate basic relationships between fundamental economic measures and variables.	3	70%	65%
<b>Outcome 3</b>	Demonstrate awareness of the market system and the role of government policy in different contexts.	3	70%	65%
<b>Outcome 4</b>	Apply various microeconomic and macroeconomic concepts to real-life situations	3	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	2	1	3	2	-	-	-	2	3	2	2			
Outcome 2	3	2	2	3	2	-	-	-	2	3	2	2			
Outcome 3	3	2	2	2	2	-	-	-	2	3	2	2			
Outcome 4	3	2	2	3	2	-	-	-	2	3	2	2			
Course Average	3	2	2	3	2	-	-	-	2	3	2	2			

**Course Unitization Plan**

<b>Unit No.</b>	<b>Unit Name</b>	<b>Required Learning hours</b>	<b>CLOs Addressed</b>	<b>References Used</b>
<b>Unit I</b>	<b>Introduction</b>	<b>10</b>		
	What is Economics?	3	1	1
	Basic Concepts of Economics	3	1	1
	Ten Principles of Economics	2	1	1
<b>Unit II</b>	<b>Microeconomic Concepts</b>	<b>23</b>		
	Demand Function	4	2	1
	Supply Function	4	2	1
	Market Equilibrium	3	2	1
	Elasticity	4	2	1
	Determinants of Elasticity	4	2	1
	Competition and Types of Markets	4	2	1
<b>Unit III</b>	<b>Macroeconomic Concepts</b>	<b>20</b>		
	National Income	4	3	2
	Unemployment	4	3	2
	Inflation	4	3	2
	AD-AS Curve	4	3	2
	Introduction to Fiscal and Monetary Policies	4	3	2
<b>Unit IV</b>	<b>Application of Microeconomic and Macroeconomic concepts</b>	<b>7</b>		
	Applications of Supply and Demand curves	4	4	3
	Application of AD-AS curve	3	4	2
<b>Total Learning hours</b>		<b>60</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	60%	60%	40%	40%	50%
	Understand					
Level 2	Apply	40%	40%	60%	60%	50%
	Analyze					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

### Recommended Resources

1. Mankiw, N. G. Principles of Microeconomics, (2007).
2. Mankiw, N. G. (2013). Macroeconomics fifth edition.
3. <https://open.umn.edu/opentextbooks/textbooks/32>

### Other Resources

### Course Designers

1. Dr Adviti Devaguptapu, Assistant Professor, SRM University-AP.

### Data Analytics for Social Science

Course Code	FIC 116	Course Category					L	T	P	C
							4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)						
Course Offering Department	Economics	Professional / Licensing Standards								

#### Course Objectives / Course Learning Rationales (CLRs)

- Understand the skill sets and technologies required for data science.
- Gain knowledge of data science process and basic tools for Exploratory Data Analysis
- Learn various data science algorithms and its application domain.
- Understand the implement recommendation system using fundamental mathematical and algorithmic ingredients.
- Understand the use of data visualization tool

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Demonstrate statistical measures to fit a model to a data.	2	75%	70%
<b>Outcome 2</b>	Apply data science algorithms such as Linear Regression, k-Nearest Neighbours (k-NN), k-means, and Naive Bayes to solve the given problems.	5	75%	70%
<b>Outcome 3</b>	Apply Feature Selection algorithms such as Filters, Wrappers, Decision Trees and Random Forests to solve a given problem	3	70%	60%
<b>Outcome 4</b>	Compute Recommendation Systems using Visualization tools based on the acquired data	4	70%	60%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	2	1	1			2	2	1	3	3	3	2
Outcome 2	3	3	3	2	1	1			2	2	1	3	2	3	2
Outcome 3	3	3	3	2	1	1			2	2	1	3	3	3	2
Outcome 4	3	3	3	2	1	1			2	2	1	3	3	3	2
Average	3	3	3	2	1	1			2	2	1	3	3	3	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit 1</b>		<b>9</b>		
	Introduction: What is Data Science? - Big Data and Data Science hype – and getting past the hype - Why now?	2	1	1,2,3,6,8
	Datafication- Current landscape of perspectives	1	1	1,2,3,5,9,10
	Skill sets needed	1	1	1,2
	Statistical Inference - Populations and samples	1	1	1,2,6,9
	Statistical modelling,	1	1	1,2,6,9
	probability distributions,	1	1	1,2,6,9
	fitting a model	1	1	1,2,6,9
	Introduction to R	1	1	1,2,8
<b>Unit 2</b>		<b>9</b>		
	Exploratory Data Analysis and the Data Science Process	2	1	1,2,3
	Philosophy of EDA - The Data Science Process	2	1	1,2,3
	The Data Science Process	1	1	1,2,6
	Three Basic Machine Learning Algorithms – Introduction	1	1, 2	1,10
	Linear Regression	1	1, 2	5,7
	K-Nearest Neighbours (K-NN)	1	1, 2	5,7
	K-means	1	1, 2	5,7
<b>Unit 3</b>		<b>9</b>		
	One More Machine Learning Algorithm and Usage in Applications	1	2	5,7
	Motivating application: Filtering Spam - Why Linear Regression and k-NN are poor choices for Filtering Spam	1	1, 2	5,7,9,10
	Naive Bayes and why it works for Filtering Spam	1	1, 2	5,7
	Data Wrangling: APIs and other tools for scrapping the Web	1	1, 2	4,10
	Feature Generation and Feature Selection (Extracting Meaning from Data)	1	3	4,10
	Motivating application: user (customer) retention	1	3	4,10
	Feature Generation (brainstorming, role of domain expertise, and place for imagination) -	1	3	4,10
	Feature Selection algorithms	1	3	4,10
	Filters; Wrappers; Decision Trees; Random Forests	1	3	4,10
<b>Unit 4</b>		<b>9</b>		
	Recommendation Systems: Building a User-Facing Data Product	2	4	1,2,8
	Algorithmic ingredients of a Recommendation Engine	1	4	1,2,8
	Dimensionality Reduction	2	4	8,9
	Singular Value Decomposition - Principal Component Analysis -	1	4	8,9
	Mining Social-Network Graphs	1	4	8,9
	Clustering of graphs - Direct discovery of communities in graphs	1	4	8,9
	Partitioning of graphs - Neighbourhood properties in graphs	1	4	8,9
<b>Unit 5</b>		<b>9</b>		
	Data Visualization	1	4	1,2,3,6
	Basic principles, ideas, and tools for data visualization	2	4	1,2,3,6
	Examples of inspiring (industry) projects -	2	4	1,2,3,6



	Data Science and Ethical Issues	1	4	1,2,3,6
	Discussions on privacy, security, ethics	1	4	1,2,3,6
	A look back at Data Science	1	4	1,2,3,6
	Next-generation data scientists	1	4	1,2,3,6
<b>Total Learning hours</b>		<b>45</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	70%	40%	30%	30%	30%
	Understand					
Level 2	Apply	20%	40%	50%	40%	50%
	Analyze					
Level 3	Evaluate	10%	20%	20%	30%	20%
	Create					
<b>Total</b>		100%	100%	100%	100%	100%

### Recommended Resources

1. Joel Grus, Data Science from Scratch: First Principles with Python, Second Edition O'Reilly, Paperback – 5 May 2019
2. Jake VanderPlas, Python Data Science Handbook: Essential Tools for Working with Data Paperback – 2016
3. Cathy O'Neil and Rachel Schutt. Doing Data Science, Straight Talk from The Frontline. O'Reilly. 2014.
4. Jure Leskovek, Anand Rajaraman and Jeffrey Ullman. Mining of Massive Datasets. v2.1, Cambridge University Press. 2014. (free online)
5. Kevin P. Murphy. Machine Learning: A Probabilistic Perspective. ISBN 0262018020. 2013.
6. Foster Provost and Tom Fawcett. Data Science for Business: What You Need to Know about Data Mining and Data-analytic Thinking. ISBN 1449361323. 2013.
7. Trevor Hastie, Robert Tibshirani and Jerome Friedman. Elements of Statistical Learning, Second Edition. ISBN 0387952845. 2009. (free online)
8. Avrim Blum, John Hopcroft and Ravindran Kannan. Foundations of Data Science. (Note: this is a book currently being written by the three authors. The authors have made the first draft of their notes for the book available online. The material is intended for a modern theoretical course in computer science.)
9. Mohammed J. Zaki and Wagner Miera Jr. Data Mining and Analysis: Fundamental Concepts and Algorithms. Cambridge University Press. 2014.
10. Jiawei Han, Micheline Kamber and Jian Pei. Data Mining: Concepts and Techniques, Third Edition. ISBN 0123814790. 2011.

### Other Resources

### Course Designers

1. Dr Rajiv Senapati, Assistant Professor, Computer Science Engineering, SRM University – AP.



### Mathematical Methods for Economics I

Course Code	ECO 101	Course Category	CC		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)	ECO 222			
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

1. Transmit the body of foundation of mathematics that enables the study of economic theory
2. Employ popular economic tools as means for illustrating the method of applying mathematical techniques to economic theory in general

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Solve problems on numbers, sets and functions	3	80%	70%
<b>Outcome 2</b>	Calculate matrix exercises with applications to economics.	3	80%	70%
<b>Outcome 3</b>	Solve problems on limits and continuous functions.	2	80%	70%
<b>Outcome 4</b>	Apply the concepts of limits and continuity to differential calculus.	3	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	2	1				2	2	1	3	3	3	2
Outcome 2	3	3	3	2	1				2	2	1	3	2	3	2
Outcome 3	3	3	3	2	1				2	2	1	3	3	3	2
Outcome 4	3	3	3	2	1				2	2	1	3	3	3	2
Average	3	3	3	2	1				2	2	1	3	3	3	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit I</b>	<b>Basic Concepts of Numbers, Sets and Function</b>	<b>15</b>		
	Functions of several real variables	2	1	2
	Number systems, Geometric Representations,	2	1	2
	Differentiable Functions, Second Order Derivatives	2	1	2
	Homogeneous and Homothetic Functions	2	1	2
	Set Theory, Set Notions, Universal Set, Null Set, Convex Set	2	1	2
	Finite & Infinite Sets, Laws of Set Operation, examples, Exercises & solution	2	1	2
	Function and Equations, Variables, Relations and Functions	1	1	2
	Equations, Identities, Equilibrium Condition, Systems of Simultaneous Linear Equations	1	1	2
	The Straight line and its Slope.	1	1	2
<b>Unit II</b>	<b>Matrix and Determinants</b>	<b>15</b>		
	Vectors & Matrices	2	2	3
	Types of Matrices	2	2	3
	Rules of Addition and Multiplication	3	2	3
	Matrix Operations	2	2	3
	Determinants	2	2	3
	Solution of Linear Equations	2	2	3
	Illustrative examples, Exercises	2	2	3
<b>Unit III</b>	<b>Limits &amp; Continuity</b>	<b>15</b>		
	Introduction	2	3	1
	Sequence, Neighbourhood, limit	2	3	1
	Evaluation of different types of limits, neighbourhood, limit	3	3	1
	Evaluation of different types of limits	2	3	1
	Continuity of a function	3	3	1
	Illustrative examples, Exercises	3	3	1
<b>Unit IV</b>	<b>Differential Calculus</b>	<b>15</b>		
	Derivative of a function	2	4	1
	Geometric interpretation of derivatives	1	4	1
	Deferability of a function	1	4	1
	Rules of differentiation	2	4	1
	Second and higher order derivatives	2	4	1
	Partial and total Derivatives	1	4	1
	L-Hospital's rules	2	4	1
	Application in economics	2	4	1
	Illustrative examples	1	4	1
	Homogeneous Function, Euler's Theorem	1	4	1
<b>Total Learning hours</b>		<b>60</b>		

### **Learning Assessment**

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (15%)	Mid-1 (15%)	CLA-2 (10%)	CLA-3 (10%)	
Level 1	Remember	40%	40%	40%	40%	40%
	Understand					
Level 2	Apply	60%	60%	60%	60%	60%
	Analyze					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

### **Recommended Resources**

1. Chiang, A.C. and K. Wainwright (2013), Fundamental Methods for Mathematical Economics, McGraw Hill, New Delhi.
2. 2. Carl P Simon Lawrence Blume, Mathematics for Economists, Viva Books
3. 3. Allen, R.G.D (2008), Mathematical Analysis for Economists, Macmillan Press, London

### **Other Resources**

### **Course Designers**

1. Internal (Institutional) Subject Matter Experts: Dr. J Vineesh Prakash
2. Expert Reviewers : Dr Raja Durai (School of Economics) Prof. Maria Saleth (MIDS, Chennai)

### Creativity and Critical Thinking Skills

Course Code	AEC 104	Course Category	Ability Enhancement Course (AEC)		L	T	P	C
					1	0	1	2
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Literature & Languages	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- Identify key concepts associated with creative problem-solving and critical analysis.
- Interpret and summarize various models and frameworks used in fostering creative and critical thinking skills
- Apply divergent thinking methods to generate innovative solutions to multifaceted problems.
- Assess and compare the strengths and weaknesses of various critical thinking approaches in decision-making.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Define and describe fundamental concepts and theories related to creativity and critical thinking.	1	80%	80%
<b>Outcome 2</b>	Explain the significance of creativity and critical thinking in problem-solving and decision-making processes.	2	80%	60%
<b>Outcome 3</b>	Implement critical thinking strategies to analyse and evaluate information and arguments effectively.	3	80%	70%
<b>Outcome 4</b>	Analyse and assess the effectiveness of specific creative thinking methods in addressing real-world problems.	4	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	3	3			3		3		3	3	3	1
Outcome 2	3	3	3	3	3			3		3		3	3	3	1
Outcome 3	3	3	3	3	3			3		3		3	3	3	1
Outcome 4	3	3	3	3	3			3		3		3	3	3	1
Average	3	3	3	3	3			3		3		3	3	3	1

### Course Unitization Plan

Unit No.	Unit Name	Required Contact Hours	CLOs Addressed	References Used
<b>Unit 1</b>	<b>Introduction to Creativity and Critical Thinking</b>	<b>6</b>		
	Introduction to key concepts	2	1,3	1
	Importance in personal and professional contexts	2	1,3	1,2
	Understanding the differences	1	2,3	1,4
	Real-world applications	1	1,3	1,3
<b>Unit 2</b>	<b>Overcoming Mental Blocks</b>	<b>6</b>		
	Identifying and addressing barriers	3	1	14
	Exercises for mental flexibility	3	4	1,2
<b>Unit 3</b>	<b>Critical Thinking Skills</b>	<b>6</b>		
	Recognizing common pitfalls	1	1,3	1,2
	Examples and group discussion	1	2,3	1,2
	Techniques for assessing information credibility	2	1,3	1
	Case studies and research exercises	2	1,3	3
<b>Unit 4</b>	<b>Application of Creative Solutions</b>	<b>6</b>		
	Practical problem-solving exercises	1	1,3	1,4
	Group projects and case studies	2	2,3	2,3
	Integrating ethics into creative and critical thinking	1	1,3	1
	Discussions on ethical dilemmas and decision-making	2	1,3	3
<b>Unit 5</b>	<b>Application of Creative Solutions</b>	<b>6</b>		
	Quizzes on concepts and techniques	1	1,3	1,2
	Individual and group assignments	1	2,3	1,2
	Applying creativity and critical thinking to a real-world scenario	2	1,3	1
	Presentation and peer evaluation	2	1,3	3
<b>Total Contact Hours</b>		<b>30</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (75%)			
		CLA-1 (20%)	CLA-2 (20%)	CLA-3 (20%)	Project Work (45%)
Level 1	Remember	30%		10%	
	Understand				
Level 2	Apply	70%	100%	90%	100%
	Analyse				
Level 3	Evaluate				
	Create				
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### Recommended Resources

1. Creative Confidence: Unleashing the Creative Potential Within Us All by Tom Kelley and David Kelley
2. Critical Thinking: An Introduction by Alec Fisher
3. Think Like a Freak: The Authors of Freakonomics Offer to Retrain Your Brain by Steven D. Levitt and Stephen J. Dubner
4. Creative Intelligence: Harnessing the Power to Create, Connect, and Inspire by Bruce Nussbaum

### Other Resources

1. No Data

### Course Designers

1. Dr. Sayantan Thakur, Assistant Professor, Department of Literature and Languages, SRM University-AP





### Analytical Reasoning and Aptitude Skills - Basics

Course Code	SEC 114	Course Category				
			L	T	P	C
			0	2	1	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)		
Course Offering Department	Mathematics	Professional / Licensing Standards				

#### Course Objectives / Course Learning Rationales (CLRs)

- To categorize, apply and use thought process to distinguish between concepts of quantitative methods.
- To prepare and explain the fundamentals related to various possibilities.
- To critically evaluate numerous possibilities related to puzzles.
- Explore and apply key concepts in logical thinking to business problems.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Use logical thinking and analytical abilities to solve quantitative aptitude questions from company specific and other competitive tests.	1	50%	40%
<b>Outcome 2</b>	Solve questions related to Time and Distance and Time and work from company specific and other competitive tests.	3	50%	40%
<b>Outcome 3</b>	Understand and solve puzzle questions from specific and other competitive tests	1	40%	30%
<b>Outcome 4</b>	Make sound arguments based on mathematical reasoning and careful analysis of data.	1	45%	40%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Engineering Knowledge	Problem Analysis	Design and Development	Analysis, Design and Research	Modern Tool and CT Usage	Society and Multicultural Skills	Environment and Sustainability	Moral, and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Project Management and Finance	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1		2	2	2	1				2						
Outcome 2		2	1	2	1										
Outcome 3		3	2	2					2						
Outcome 4		3	1	2											
Average		3	2	2	1				2						

### Course Unitization Plan

Unit No.	Syllabus Topics	Required Contact Hours	CLOs Addressed	References Used
Unit No. 1	Speed Maths and Simplification	1	1,2	1,2
	Basics of Number system – Different types of numbers and their properties, Problems on finding unit digit, finding number of divisors and their application, LCM and HCF and their applications	6	1,2	1,2
	Basics of Linear equations	2	1,2	1,2
Unit No. 2	Basics of Percentage calculations, Profit and Loss, Simple interest and Compound interest, True Discount	6	1,4	1,2
	Basics of Ratio and Proportion, Average, Alligation and Mixtures	4	1,2	1,2
Unit No. 3	Basics of Time and Work, Pipes and Cisterns, Problems on Chain Rule	4	1,4	1,2
	Basics of Time, Speed and Distance, Problems on Trains, Boats and Streams, Problems on Races and Games and Escalators.	6	1,4	1,2
Unit No. 4	Basics of counting techniques, Permutations and Combinations, Probability	5	1,2,4	1,2
	Basic introduction of Progressions, Quadratic Equations, Inequalities	4	1,2	1,2
Unit No. 5	Number Series, Alphabet series, odd man out, Finding the Wrong Number, Non-Verbal Series.	4	1,2	3,4
	Analogies, Coding and decoding	3	1,3	3,4

### Learning Assessment

Bloom’s Level of Cognitive Task		Continuous Learning Assessments ( __%)								End Semester Exam ( __50%)	
		CLA-1 ( __10%)		CLA-2 ( __15%)		CLA-3 ( __10%)		Mid Term ( __15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	20%		25%		20%		25%		25%	
	Understand	20%		25%		20%		25%		25%	
Level 2	Apply	30%		25%		30%		25%		25%	
	Analyse	30%		25%		30%		25%		25%	
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### Recommended Resources

1. Arun Sharma – How to prepare for CAT Quantitative Aptitude, Tata McGraw Hill.
2. CAT Quantitative Aptitude – Nishit K. Sinha
3. R.S. Agarwal – Reasoning. Reasoning for competitive exams – Agarwal.
4. Logical Reasoning and Data Interpretation for CAT, By Nishit K. Sinha

### Other Resources

1. Geeks for Geeks
2. Indiabix.
3. M4maths.com

### Course Designers

1. Mr. Naresh Adapa – Quantitative Aptitude Trainer, Department of CR&CS SRM University AP.
2. Mr. Shaik Mohammed Musa Kaleemullah, Verbal Ability Trainer, Department of CR&CS, SRM University AP.
3. Dr. Fouzul Atik – Assistant Professor, Department of Mathematics, SRM University AP.



### Introduction to Statistics

Course Code	ECO 201	Course Category					L	T	P	C
							4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)						
Course Offering Department	Economics	Professional / Licensing Standards								

#### Course Objectives / Course Learning Rationales (CLRs)

1. To introduce and familiarize the students with descriptive and inferential statistics.
2. To understand the methods of sampling and collecting data with practical applications.
3. To equip students with methods for analysing and interpreting data.
4. Make the students ready to solve different problems using statistical operations.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Explain basic concepts of probability distribution and its application in statistical testing	2	70%	65%
<b>Outcome 2</b>	Analyse issues in sampling methods	3	70%	65%
<b>Outcome 3</b>	Estimate and interpret statistical trends	5	70%	65%
<b>Outcome 4</b>	Will be able to the trend analysis.	5	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	2	3	3	3	3	2			3			3	3	2	2
Outcome 2	2	3	3	3	3	2			3			3	3	2	2
Outcome 3	2	3	3	3	3	2			3			3	3	1	2
Outcome 4	2	2	2	2	2	2			3			2	3	3	2
Outcome 5	2	3	3	3	3	2			3			3	3	2	2
Average	2	3	3	3	3	2			3			3	3	2	2

**Course Unitization Plan**

Unit No,	Unit Name	Required Learning hours	CLOs Addressed	Reference
<b>Unit I</b>	<b>Inferential Statistics</b>	<b>08</b>		
1	Nature and Classification of Data	2	1	1
2	Types of Data	2	1	1
3	Introduction to Sampling	2	2	1,2
4	Types of Sampling	2	2	1,2
<b>Unit II</b>	<b>Design of Sample and Testing of Hypothesis</b>	<b>14</b>		
5	Parameters	2	2	1,2
6	Statistics - Sampling and Non-Sampling Errors	1	2	1,2
7	Advantages and Disadvantages of Sampling	1	2	1,2
8	Definition of Sampling Distribution	2	2	1,2
9	Standard Error	2	2	1,2
10	Hypothesis (Null and Alternative)	1	2	1,2
11	Level of Significance—P Value	2	2	1,2
12	Type I and Type II Errors	1	2	1,2
13	Tests of Hypothesis (Z, t, F and $\chi^2$ ).	2	2	1,2
<b>Unit III</b>	<b>Index Numbers</b>	<b>15</b>		
14	Concept and Definition	3	4	1,2
15	Methods of Measuring Trend-Quadratic	3	4	1,2
16	Quantity Relative, Value Relative, Ratio of Moving Average and Ratio of Trend.	2	4	1,2
17	Laspeyer's Index, Paasche's Index and Fisher's index,	3	4	1,2
18	Problems in the Construction and Limitations of Index Numbers	2	4	1,2
19	Tests for Ideal Index Number	2	4	1,2
<b>Unit IV</b>	<b>Time Series Analysis</b>	<b>15 hrs</b>		
20	Introduction; Components of Time Series;	1	3	1,2
21	Determination and Elimination of Trend;	2	3	1,2
22	Linear and Non – Linear	2	3	1,2
23	Second Degree Parabola and Exponential Curves	2	3	1,2
24	Measurement of Seasonality	3	3	1,2
25	Cyclical and Random Components	2	3	1,2
26	Models of Time Series and forecasting	3	3	1,2
<b>Unit V</b>	<b>Interpolation and Extrapolation</b>	<b>08 hrs</b>		
27	Introduction; Assumptions; Definitions	2	5	1,2
28	Methods	2	5	1,2
29	Interpolation and Extrapolation Methods - Simple Examples	4	5	1,2
	<b>Total Contact Hours</b>	<b>60</b>		

**Learning Assessment**

Bloom’s Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	60%		60%		40%		40%		50%	
	Understand										
Level 2	Apply	40%		40%		60%		60%		50%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

**Recommended Resources****Other Resources****Course Designers**

### Introductory Microeconomics

Course Code	ECO 202	Course Category	CC			L	T	P	C
						4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)					
Course Offering Department	Economics	Professional / Licensing Standards							

#### Course Objectives / Course Learning Rationales (CLRs)

1. Understand economic fundamentals, analyze systems, and interpret graphs to recognize market forces.
2. Grasp determinants, shifts in curves, and analyze resource allocation, elasticity, controls, taxes, and surplus.
3. Understand consumer theory, applying budget constraints, indifference curves, and analyzing labor-leisure choices.
4. Acquire knowledge of production functions, returns, technology impact, and analyze cost functions and structures.
5. Develop an understanding of market structures, analyzing profit maximization, market power, and competition dynamics.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Interpret graphs and recognize market forces by understanding economic fundamentals.	4	80%	75%
<b>Outcome 2</b>	Assess the impact of determinants on demand and supply, analysing resource allocation, elasticity, controls, taxes, and surplus.	5	80%	75%
<b>Outcome 3</b>	Utilize consumer theory concepts like budget constraints and indifference curves to inform decisions on labour-leisure choices.	3	80%	75%
<b>Outcome 4</b>	Combine knowledge of production functions, returns, and technology to analyse cost functions and structures in both short-run and long-run scenarios.	2	80%	75%
<b>Outcome 5</b>	Assess different market structures, demonstrating a comprehensive understanding of profit maximization, market power, and competition dynamics.	5	80%	75%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	2	2		1	1			2	3		2	2	1	1
Outcome 2	3	2	2		1	1			2	3		2	2	1	1
Outcome 3	3	3	3		2	1			3	3		2	2	1	1
Outcome 4	3	2	3		2	1			3	3		2	1	1	1
Outcome 5	3	2	3		2	1			2	3		2	1	1	1
Average	3	2	3		2	1			2	3		2	2	1	1

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit 1</b>	<b>Introduction to Economics</b>	<b>12</b>		<b>1,2</b>
	Why study economics? Scope and method of economics; the economic problem: scarcity and choice;	<b>3</b>	<b>1</b>	<b>1,2</b>
	the question of what to produce, how to produce and how to distribute output; science of economics;	<b>3</b>	<b>1</b>	<b>1,2</b>
	the basic competitive model; prices, property rights and profits; incentives and information	<b>3</b>	<b>1</b>	<b>1,2</b>
	rationing; opportunity sets; economic systems; reading and working with graphs.	<b>3</b>	<b>1</b>	<b>1,2</b>
<b>Unit 2</b>	<b>Concept of Demand and Supply</b>	<b>12</b>		
	Determinants of individual demand/supply; demand/supply schedule and demand/supply curve	<b>3</b>	<b>2</b>	<b>1,3</b>
	market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together	<b>3</b>	<b>2</b>	<b>1,3</b>
	how prices allocate resources; elasticity and its application	<b>2</b>	<b>2</b>	<b>1,3</b>
	controls on prices; taxes and the costs of taxation, consumer surplus; producer surplus and the efficiency of the markets	<b>4</b>	<b>2</b>	<b>1,3</b>
<b>Unit 3</b>	<b>Theory of Consumer Behaviour</b>	<b>12</b>		
	The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes;	<b>5</b>	<b>3</b>	<b>3,4</b>
	Utility and preferences (indifference curves); properties of indifference curves; consumer 's optimum choice; income and substitution effects	<b>5</b>	<b>3</b>	<b>3,4</b>
	Applying consumer theory: Labour leisure theory	<b>2</b>		<b>3,4</b>
<b>Unit 4</b>	<b>Theory of Producer Behaviour</b>	<b>12</b>		
	Production, short- run production function and returns to factor – Average-marginal relationship, long – run production function and laws of return to scale- role of technology.	<b>6</b>	<b>4</b>	<b>1,3</b>
	Cost function and cost structure of a firm in the short- run, long run cost function and cost structure.	<b>6</b>	<b>4</b>	<b>1,3</b>
<b>Unit 5</b>	<b>Market Structure</b>	<b>12</b>		
	Perfect competition including shut-down and break-even points.	<b>3</b>	<b>5</b>	<b>1,2,3</b>
	Monopoly: marginal revenue; marginal cost; profit maximization; shutdown rule; market power; price discrimination	<b>6</b>	<b>5</b>	<b>1,2,3</b>
	Monopolistic competition and product differentiation	<b>3</b>	<b>5</b>	<b>1,2,3</b>
<b>Total Learning hours</b>		<b>60</b>		



### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	60%	60%	60%	60%	50%
	Understand					
Level 2	Apply	40%	40%	40%	40%	50%
	Analyse					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

### Recommended Resources

1. Principles of microeconomics, N. Gregory Mankiw, Publisher: Cengage Learning fifth edition,
2. Principles of Economics, Case Karl E, Fair Ray C; Oster Sharon M, Publisher: Pearson tenth edition
3. Modern Microeconomics, Koutsoyiannis, 2nd Edition,
4. Rittenberg, Libby, and Timothy Tregarthen. Principles of Microeconomics, 2009.

### Other Resources

### Course Designers

1. Manzoor Hassan Malik, Assistant Professor, Department of Economics, SRM University AP

### Introductory Macroeconomics

Course Code	ECO 203	Course Category	CC		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)	ECO 153			
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To obtain an overview of the concepts used in macroeconomic analysis.
- To understand how economies function in the short run.
- To understand the competing schools of thought in macroeconomics

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Explain national income accounting.	2	70%	70%
<b>Outcome 2</b>	Explain classical macroeconomics.	2	70%	70%
<b>Outcome 3</b>	Describe the concepts in Keynesian economics in a simple closed economy.	2	70%	70%
<b>Outcome 4</b>	Relate Keynesian and classical economics to the short run functioning of a closed economy.	4	70%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	2	1	3	1				2	3	1	3	2	1	2
Outcome 2	3	1	1	3	1				2	3	1	2	3	2	2
Outcome 3	3	2	1	3	1				2	3	1	3	3	2	2
Outcome 4	3	3	2	3	1				2	3	1	3	3	1	2
Course Average	3	2	1	3	1				2	3	1	3	3	2	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit I</b>	<b>National Income Accounting</b>	<b>10</b>		
	The circular flow of income.	2	1	1,2
	Concepts of GNP, GDP, NNP, and NDP at market price and factor cost. The measurement of National Income Value Added Method and Expenditure Method	3	1	1,2
	The problem of double counting & the role of government	2	1	1,2
	Corporate Income, Corporate Savings, Personal Income, Personal Disposable Income and Personal Savings	3	1	1,2
<b>Unit II</b>	<b>The Simple Keynesian Model in a Closed Economy</b>	<b>17</b>		
	The Simple Keynesian Model (SKM) in a Closed Economy without Government	2	3	1,3
	The Keynesian Consumption Function	2	3	1,3
	The Keynesian Saving Function; income determination in SKM; stability of equilibrium	3	3	1,3
	The concept of effective demand- the concept of demand-determined output	2	3	1,3
	The Simple Keynesian Multiplier; the paradox of thrift	2	3	1,3
	The SKM in a Closed Economy with Government; government expenditure and tax rate multiplier	4	3	1,3
	The balanced budget multiplier	2	3	1,3
<b>Unit III</b>	<b>The closed economy in the short run</b>	<b>18</b>		
	IS-LM model	3	4	1,4
	Fiscal and Monetary Multipliers	2	4	1,4
	Efficiency in Fiscal Policy and Monetary Policy	3	4	1,4
	Equilibrium in IS-LM model	2	4	1,4
	Stability and comparative statics in IS-LM model	3	4	1,4
	Crowding out	2	4	1,4
	Effects of fiscal and monetary policies	3	4	1,4
<b>Unit IV</b>	<b>The Classical system</b>	<b>15</b>		
	Say's Law and Quantity Theory of Money	2	2	1,2
	Loanable fund theory	3	2	1,2
	the Classical Theory of Income and Employment determination	4	2	1,2
	full Employment and wage-price flexibility	3	2	1,2
	Classical Dichotomy and Neutrality of Money	3	2	1,2
<b>Total Learning hours</b>		<b>60</b>		

**Learning Assessment**

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	60%	50%	60%	60%	70%
	Understand					
Level 2	Apply	40%	50%	40%	40%	30%
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		100%	100%	100%	100%	100%

### **Recommended Resources**

1. Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005.
2. 2. Mankiw, N. (2016). Macroeconomics, 9th ed. Worth Publishers
3. 3. Blanchard, O. (2018). Macroeconomics, 7th ed. Pearson Education.
4. 4. Dornbusch, R., Fischer, S., Startz, R. (2018). Macroeconomics, 12th ed. McGraw-Hill

### **Other Resources**

### **Course Designers**

1. Dr Kamal Sai Sadharma Erra, Assistant Professor, Department of Economics, SRM University- AP.
2. 2. Dr Raja Sethu Durai, Professor, School of Economics, University of Hyderabad
3. 3. Dr Ravinder Reddy, Professor, School of Management, NIT Warangal

### Mathematical Methods for Economics II

Course Code	ECO 204	Course Category				
			L	T	P	C
			4	0	0	4
Pre-Requisite Course(s)	ECO 323	Co-Requisite Course(s)		Progressive Course(s)	ECO 252	
Course Offering Department	Economics	Professional / Licensing Standards				

#### Course Objectives / Course Learning Rationales (CLRs)

- Transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level.
- Provide the mathematical foundations necessary for further study of a variety of disciplines

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Solve intermediate level problems in linear algebra	3	75%	65%
<b>Outcome 2</b>	Evaluate exercises on mathematical optimization	3	75%	65%
<b>Outcome 3</b>	Compute numerical related to integral calculus	3	75%	65%
<b>Outcome 4</b>	Solve exercises on differential equations	3	75%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	2	2	1				2	2	1	2	3	3	2
Outcome 2	3	3	2	2	1				2	2	1	2	3	3	2
Outcome 3	3	3	2	2	2				2	2	1	2	3	3	2
Outcome 4	3	3	2	2	2				2	2	1	2	3	3	2
Average	3	3	2	2	2				2	2	1	2	3	3	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit I</b>	<b>Linear Algebra</b>	<b>15</b>		
	Vector Spaces	1	1	2
	Linear Transformations	3	1	2
	Systems of Linear Equations	2	1	2
	Determinants	3	1	2
	Characterization	2	1	2
	Properties, And Applications	4	1	2
<b>Unit III</b>	<b>Optimization</b>	<b>14</b>		
	Concept of maxima and minima	1	2	1
	Global & Local optima	2	2	1
	Identification of maxima and minima	2	2	1
	Points of inflection, illustrative examples	2	2	1
	Unconstrained and Constrained maximization	2	2	1
	Lagrange Method	2	2	1
	Illustrative examples.	3	2	1
<b>Unit III</b>	<b>Integration</b>	<b>16</b>		
	Concept of integration	2	3	2,3
	Rules of Integration	2	3	2,3
	Methods of Integration	2	3	2,3
	Integration by Parts	2	3	2,3
	Definite and Indefinite Integrals	2	3	2,3
	Improper integrals	1	3	2,3
	Fundamental Theorem of calculus	2	3	2,3
	Illustrated examples	2	3	2,3
	Computation techniques	1	3	2,3
<b>Unit IV</b>	<b>Differential Equations</b>	<b>15</b>		
	Concept of Differential Equation	1	4	2,3
	Exact Differential Equation Integrating Factor	3	4	2,3
	First Order Linear Differential Equation	2	4	2,3
	Economic Applications of First Order	2	4	2,3
	Second Order Differential Equation	2	4	2,3
	Economic Applications of Second Order	3	4	2,3
	Illustrative examples and exercises	2	4	2,3
<b>Total Learning hours</b>		<b>60</b>		

**Learning Assessment**

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	40%	40%	40%	40%	40%
	Understand					
Level 2	Apply	60%	60%	60%	60%	60%
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### **Recommended Resources**

1. Chiang, A.C. and K. Wainwright (2013), Fundamental Methods for Mathematical Economics, McGraw Hill, New Delhi.
2. 2. Carl P Simon Lawrence Blume, Mathematics for Economists, Viva Books
3. 3. Allen, R.G.D (2008), Mathematical Analysis for Economists, Macmillan Press, London

### **Other Resources**

### **Course Designers**

1. Internal (Institutional) Subject Matter Experts: Dr. J Vineesh Prakash
2. Expert Reviewers : Dr Raja Durai (School of Economics)
3. Prof. Maria Saleth (MIDS, Chennai)

**BA/BA(H)/BA(Hons with research) III Semester**

**Summer Immersion: Liberal Arts**

Course Code		Course Category	RDIP		L	T	P	C
					0	0	2	2
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)	Summer Internship			
Course Offering Department	Sociology/Anthropology	Professional / Licensing Standards						

**Course Objectives / Course Learning Rationales (CLRs)**

- To provide students with real-world experience in understanding the challenges faced by communities working towards social development
- To help students analyse the efforts of organizations driving inclusive development in rural and urban areas.
- To enhance students' practical skills in problem-solving and community engagement for social impact.

**Course Outcomes / Course Learning Outcomes (CLOs)**

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Identify social and developmental issues encountered by communities in both rural and urban settings.	1,2	70	80
<b>Outcome 2</b>	Explain the effectiveness of interventions and strategies used by organizations to promote inclusive social change.	2	70	80
<b>Outcome 3</b>	Apply critical thinking skills to develop solutions for the challenges observed during their field immersion.	3	70	80
<b>Outcome 4</b>	Examine the functioning of civil society and development related organisations.	4	70	80

**Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)**

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	0	2	1	2	3	3	2	2	2	3	3	3	2	3	3
Outcome 2	0	2	1	2	3	3	2	2	2	3	3	3	2	3	2
Outcome 3	0	2	1	2	3	3	1	2	2	3	3	3	1	3	3
Outcome 4	0	2	1	2	3	3	1	2	2	3	3	3	3	2	2
Average	0	2	1	2	3	3	1	2	2	3	3	3	2	2	2



### Course Unitization Plan

Unit No.	Unit Name	Required Contact Hours	CLOs Addressed	References Used
Unit 1	<b>Fieldwork Experience</b>		1,2	
	Students engage with communities to identify social and developmental issues in rural and urban settings.			
Unit 2	<b>Organizational Analysis</b>		2	
	Students explain the effectiveness of interventions and strategies used by organizations to promote inclusive social change.			
Unit 3	<b>Problem-Solving Exercises</b>		3	
	Students apply critical thinking to develop solutions for challenges observed during their field immersion.			
Unit 4	<b>Civil Society Assessment</b>		4	
	Students examine the functioning of civil society and development-related organizations during their engagement.			

### Learning Assessment

Bloom's Level of Cognitive Task		Progress Report (Daily reflection Journal) (30%)	Internship Report/Video Documentary (40%)	Viva (Presentation) (30%)
Level 1	Remember	30%	25%	25%
	Understand			
Level 2	Apply	50%	50%	25%
	Analyse			
Level 3	Evaluate	20%	25%	50%
	Create			
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>

### Recommended Resources

### Other Resources

### Course Designers

1. Dr Vandana Swami, Associate Dean and Professor, Eswari School of Liberal Arts, SRM University AP
2. Dr. Vineeth Thomas, Assistant Professor and Head, Department of Political Science, SRM University AP



### Asian Cities

Course Code	AEC 111	Course Category					L	T	P	C
							2	1	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)						
Course Offering Department	ESLA	Professional / Licensing Standards								

### Course Objectives / Course Learning Rationales (CLRs)

1. Discuss the geography of the contemporary urban Asia
2. Discuss the political economy of the urban Asia
3. Summarize the major intellectual influences of different disciplines on urban Asia
4. Analyse the urban experience of different groups

### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Discuss the main theories of urban development in Asia	1	70%	80%
<b>Outcome 2</b>	Discuss the policies that shaped urban development in Asia	1	70%	70/%
<b>Outcome 3</b>	Summarize the main challenges faced by mega cities of Asia	1	70%	80%
<b>Outcome 4</b>	Analyse the water scarcity, climate change and migration challenges India	2	80%	90%

### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Engineering Knowledge	Problem Analysis	Design and Development	Analysis, Design and Research	Modern Tool and CT Usage	Society and Multicultural Skills	Environment and Sustainability	Moral, and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Project Management and Finance	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	2	2	2	2		2	2	2	2	3		3	2		
Outcome 2	2	2	2	2		2	2	2	2	3		3		2	
Outcome 3	2	2				2	2	2	2	3		3	2		3
Average	2	2	2	2		2	2	2	2	3		3	2	2	3

### Course Unitization Plan

Unit No.	Unit Name	Required Contact Hours	CLOs Addressed	References Used
Unit 1	Changing Demographics of Urbanization in Asia	7	1	1,2,
Unit 2	Models, Frameworks and Metaphors in Asian Urbanization:	10	2	3,4,5
	The Contributions of Geertz, Friedmann, Lewis, McGee and their role in our knowledge and understanding of the Asian urban context			
Unit 3	Contemporary Indian Urbanization: Major Patterns, Conundrums and Policy Challenges.	10	3	6,7,8
Unit 4	Rural-Urban Migration: Migrants in India and China	7	4	9,10,11
Unit 5	The Water crisis in historical perspective	11	5	12,13,14,15,16

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments 100%				End Semester Exam 0%
		CLA-1 25%	CLA 2 25%	CLA-3 25%	CLA-4 25%	
Level 1	Remember	60%	60%	50%	40%	
	Understand					
Level 2	Apply	40%	40%	50%	60%	
	Analyse					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	

### Recommended Resources

1. Patricia McCarney and Richard Stren (2016) Urbanization as a transformative force. Chapter 2 in World Cities Report. Pg. 27-45.
2. S Jaishankar (2024). Chapters (2,5,7) on Quercus.
3. The Lewis model explained: <https://www.youtube.com/watch?v=1cgvYrGBW6w>
4. Financial Times: China Migration at a turning point. <http://www.ft.com/cms/s/2/767495a0-e99b-11e4-b863-00144feab7de.html#axzz4JmWVQoJO>
5. The Economist: The largest migration in history. <https://www.youtube.com/watch?v=KNXg-kYk->
6. Asian experience and alternative approaches. Oxford, England, Pergamon, 1978. 163-92
7. Om Mathur et al 2022. Symposium on the State of the Cities: India Report. Urban Affairs Forum. March 15, 2022.
8. The Economist 2023. How to fix India's decrepit cities. August 14<sup>th</sup>
9. Ananya Roy 2009. Why India cannot plan its cities. Informality, Insurgence and the Idiom of Urbanization. Planning Theory. Volume: 8; Issue: 1; Page: 76-87 ( available online)
10. Om Mathur 2017 How urban is India. Financial Express, November 1<sup>st</sup>.
11. Liza Weinstein: Demolition and Dispossession, 2013 "Toward an Understanding of State Violence in Millennial Mumbai". Studies in Comparative International Development. 48: 285-307 (to be made available online, also available via the Robarts library website)
12. Chan, Kam Wing, 2015. "Five Decades of the Chinese Hukou System," in Robyn R. Iredale and Fei Guo (eds.), Handbook On Chinese Migration, Identity and Wellbeing, Edward Elgar Publishing Ltd, Cheltenham, UK, pp.23-47 ( to be made available online the U of T portal, also available via the Robarts library website ).
13. Tirthankar Roy, 2022. Monsoon Economies: India's History in a Changing Climate: MIT Press. Chapters 1,3 and 5.
14. Harini Nagendra and Seema Mundoli 2023. Shades of Blue: Connecting the drops in India's Cities. Chapters 1,2,3.
15. Harini Nagendra and Seema Mundoli 2023. Shades of Blue: Connecting the drops in India's Cities. Chapters 5 & 17

### Other Resources

### Course Designers

1. Prof. Bharat Punjabi, University of Toronto
2. Co-ordinated by Idris Bhat, Political Science, SRM University.

### Social Entrepreneurship

Course Code	SEC 108	Course Category	SEC	L	T	P	C
				2	0	0	2
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)			
Course Offering Department	Management	Professional / Licensing Standards					

#### Course Objectives / Course Learning Rationales (CLRs)

- To Equip Students with the Knowledge and Skills to Address Social Challenges through Entrepreneurial Solutions
- To Foster Practical Experience and Ethical Leadership in Social Entrepreneurship

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Discuss the Concept and Importance of Social Entrepreneurship	2	90%	80%
<b>Outcome 2</b>	Identify social problems and entrepreneurial opportunities	3	80%	80%
<b>Outcome 3</b>	Develop the Business Model for a Social Enterprise	3	70%	70%
<b>Outcome 4</b>	Prepare a plan to Manage and Scale Social Enterprises for Sustainable Impact	4	60%	60%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1		2					2	2				2			
Outcome 2		2	3				2	2	3		3	3			
Outcome 3		3	3				2	2	3		3	3			
Outcome 3		3	3				3	2	3		3	3			
Average		2.5	2.25				2.25	2	2.25		2.25	2.75			

**Course Unitization Plan**

Unit No.	Syllabus Topics	Required Contact Hours	CLOs Addressed	References Used
UNIT-1	<b>Introduction to Social Entrepreneurship</b>	2		
	Define social entrepreneurship and its importance	0.25	1	1,2
	Identify key challenges in addressing social issues	0.5	1	1,2
	Explore historical context and evolution of the field	0.25	1	1,2
	Analyze root causes of social issues	0.5	1	1,2
	Explore ethical considerations in social innovation	0.25	1	1,2
	Understand the importance of sustainability	0.25	1	1,2
UNIT-2	<b>Identifying Social Problems and Opportunities</b>	4		
	Identify pressing social problems and Methods for assessing community needs	1	2	1,2
	Techniques for spotting opportunities for social change	2	2	1,2
	Analyzing existing solutions and gaps in the market	1	2	1,2
UNIT-3	<b>Developing a Social Enterprise Concept</b>	10		
	Understand the role of empathy in social entrepreneurship	1	1,2	1,2
	Conduct needs assessments and market research	2	2	1,2
	Define a clear social mission and vision	1	2	1,2
	Business Model Canvas	6	2	1,2
UNIT-4	<b>Managing Social Entrepreneurship</b>	6		
	Role of leadership in driving social change	1	3	1,2
	Building a values-driven organization	1	3	1,2
	Explore legal structures for social enterprises	1	3	1,2
	Develop a marketing plan for social enterprises	1	2	1,2
	Understand the role of storytelling in impact	1	2,3	1,2
	Ethical marketing practices	1	1,2	1,2
UNIT-5	<b>Funding &amp; Scaling of Social Entrepreneurship</b>	6		
	Explore investment options for social enterprises	1	3,4	1,2
	Identify funding sources and strategies	1	3,4	1,2
	Develop a fundraising strategy	1	3,4	1,2
	Importance of adaptability and learning	1	3,4	1,2
	Pitching for Social Impact	1	3,4	1,2
	Strategies for scaling social enterprises	1	3,4	1,2
UNIT-6	<b>Challenges and Future Trends in Social Entrepreneurship</b>	2	1	1,2
	<b>Total Hours</b>	30		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (70%)			End Semester Exam (30%)
		Mid Term Exam (20%)	CLA-1 (20%)	CLA 2 (30%)	
Level 1	Remember	80%	60%	70%	40%
	Understand				
Level 2	Apply	20%	40%	30%	60%
	Analyse				
Level 3	Evaluate				
	Create				
Total		100%	100%	100%	100%

### Recommended Resources

1. Social Entrepreneurship: What Everyone Needs to Know" by David Bornstein and Susan Davis
2. "Social Entrepreneurship: Theory and Practice" by Ryszard Praszquier and Andrzej Nowak
3. "Lean Impact: How to Innovate for Radically Greater Social Good" by Ann Mei Chang

### Other Resources

1. <https://www.coursera.org/specializations/social-entrepreneurship-cbs>

### Course Designers

1. Dr. Aftab Alam, Assistant Professor, Paari School of Business, SRM University-AP

### Intermediate Microeconomics

Course Code	ECO 205	Course Category	Core		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)	ECO 152	Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

1. Analyse consumer behaviour using axioms of preference, utility functions, and the concepts of Marshallian and Hicksian demand, considering income and substitution effects.
2. Evaluate the production process, costs, and market structures, including technology, isoquants, cost curves, and the application of market power in monopoly, price discrimination, and oligopoly.
3. Apply marginal productivity theory to analyse factor markets, understanding derived demand, productivity, marginal product, and determining labour and land markets in different market structures.
4. Synthesize knowledge of pure exchange, Pareto optimality, welfare theorems, and general equilibrium with and without production, analysing efficiency and market conditions under imperfect

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Analyze consumer behavior using preference axioms, utility functions, and Marshallian/Hicksian demand, considering income and substitution effects.	4	80%	75%
<b>Outcome 2</b>	Understand production, costs, and market structures, examining technology, isoquants, cost curves, and market power in monopoly, price discrimination, and oligopoly.	2	80%	75%
<b>Outcome 3</b>	Explain marginal productivity theory to analyze factor markets, demonstrating understanding of derived demand, productivity, marginal product, and dynamics in labor and land markets.	4	80%	75%
<b>Outcome 4</b>	Explain Pure exchange, Pareto optimality, welfare theorems, and general equilibrium, showcasing the ability to analyze market efficiency in imperfect competition.	4	80%	75%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	1	1		2	1			1	3		2	2	2	3
Outcome 2	3	2	3		3	1			2	2		3	2	2	3
Outcome 3	3	2	2		2	1			2	3		2	2	2	3
Outcome 4	3	2	2		2	1			2	3		2	2	2	3
Average	3	2	2		2	1			2	3		2	2	2	3



### Course Unitization Plan

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit 1</b>	<b>Consumer Theory</b>	<b>16</b>		
	Axioms of Preference, utility function, Cardinal and ordinal Theory	5	1	1,2
	Budget constraint; Convexity, Marshallian demand; Hicksian Demand, Income effect, Substitution effect, Slutsky equation	6	1	1,2
	Elasticity, Elasticity of substitution, revealed preference	5	1	1,2
<b>Unit 2</b>	<b>Production, Costs and Market Structure</b>	<b>16</b>		
	Technology; isoquants; production with one and more variable inputs; returns to scale	5	2	1,2
	Short run and long run costs; cost curves in the short run and long run; review of perfect competition	5	2	1,2
	Short run and long run costs; cost curves in the short run and long run; review of perfect competition	6	2	1,2
<b>Unit 3</b>	<b>Factor Market</b>	<b>14</b>		
	Basic concepts- derived demand, productivity of an input, marginal product of an input, marginal revenue product	7	3	2,3
	Marginal productivity theory of distribution, Labour demand and supply of labour in different market structure, Land markets and rent determination	7	3	2,3
<b>Unit 4</b>	<b>General Equilibrium</b>	<b>14</b>		
	Pure Exchange, Pareto Optimality, Productive and Allocative Efficiency	7	4	2,3
	Welfare Theorems, General Equilibrium with and without and production, Imperfect Competition.	7	4	2,3
<b>Total Learning hours</b>		<b>60</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	60%	50%	60%	50%	50%
	Understand					
Level 2	Apply	40%	50%	40%	50%	50%
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### Recommended Resources

1. Recommended Resources
2. 1. Hal R. Varian, Intermediate Microeconomics, a Modern Approach, 8th edition, W.W. Norton and Company/Affiliated East-West Press (India), 2010. The workbook by Varian and Bergstrom could be used for problems.
3. 2. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010.
4. 3. B. D. Bernheim and M. D. Whinston, Microeconomics, Tata McGraw-Hill (India), 2009

### Other Resources

### Course Designers

1. Dr. Manzoor Hassan Malik, Assistant Professor, Department of Economics, SRM University AP

### Intermediate Macroeconomics

Course Code	ECO 206	Course Category	CC		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

1. To obtain an overview of the formal modelling of a macro-economy in terms of analytical tools
2. To discuss various alternative theories of output and employment determination in a closed economy in the short run and medium run, and the role of policy in this context.
3. To understand the various important theoretical issues related to an open economy.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Explain consumption theories.	2	70%	65%
<b>Outcome 2</b>	Explain aggregate supply and aggregate demand schedules.	2	70%	65%
<b>Outcome 3</b>	Describe the concepts of inflation, unemployment and expectations.	2	70%	65%
<b>Outcome 4</b>	Extend analysis to macroeconomics in open economy models.	4	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	2	1	3	2				2	3	2	2	3	2	2
Outcome 2	3	2	2	3	2				2	3	2	2	2	2	3
Outcome 3	3	2	2	2	2				2	3	2	2	2	2	3
Outcome 4	3	2	2	3	2				2	3	2	2	3	2	3
Average	3	2	2	3	2				2	3	2	2	3	2	3

### Course Unitization Plan

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit I</b>	<b>Consumption Theories</b>	<b>10</b>		
	Keynesian consumption function	3	1	1,2
	Fisher's theory of optimal intertemporal choice	3	1	1,2
	Lifecycle and permanent income hypotheses	2	1	1,2
	Dusenberry's relative income hypothesis	2	1	1,2
<b>Unit II</b>	<b>Aggregate Demand and Aggregate Supply Curves</b>	<b>9</b>		
	Derivation of aggregate demand curve	3	2	1,2
	Derivation of aggregate supply curve	3	2	1,2
	Interaction of AD & AS curves	3	2	1,2
<b>Unit III</b>	<b>Inflation, Unemployment and Expectations</b>	<b>18</b>		
	Phillips's curve	3	3	2,5
	Adaptive and rational expectations	3	3	2,4,5
	Policy ineffectiveness debate	3	3	2,5
	The concept of Inflationary Gap	2	3	2,5
	Demand-pull vs Cost-push inflation	1	3	2,5
	Mark-up inflation	3	3	2,5
	The concept of stagflation	1	3	2,5
	Rational expectations and random-walk of consumption expenditure	2	3	2,4,5
<b>Unit IV</b>	<b>Open economy models</b>	<b>23</b>		
	Short-run open economy models	2	4	3,7
	Mundell-Fleming model	4	4	3,7
	Exchange rate determination	3	4	6,7
	Purchasing power parity	3	4	6,7
	Asset market approach	3	4	6,7
	Dornbusch's overshooting model	3	4	1,7
	Monetary approach to the balance of payments	2	4	1,7
	International financial markets	3	4	7
<b>Total Learning hours</b>		<b>60</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	60%	60%	40%	40%	50%
	Understand					
Level 2	Apply	40%	40%	60%	60%	50%
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### Recommended Resources

1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.
3. Olivier Blanchard, Macroeconomics, Pearson Education, Inc., 5th edition, 2009.
4. Steven M. Sheffrin, Rational Expectations, Cambridge University Press, 2nd edition, 1996.
5. Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011.
6. Errol D'Souza, Macroeconomics, Pearson Education, 2009
7. Paul R. Krugman, Maurice Obstfeld and Marc Melitz, International Economics, Pearson Education Asia, 9th edition, 2012.

### Course Designers

1. Dr Kamal Sai Sadharma Erra, Assistant Professor, Department of Economics, SRM University- AP.
2. Dr Raja Sethu Durai, Professor, School of Economics, University of Hyderabad
3. Dr Ravinder Reddy, Professor, School of Management, NIT Warangal

**Public Economics and Policies**

Course Code	ECO 207	Course Category	Core		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)	Eco 321, ECO 221	Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

**Course Objectives / Course Learning Rationales (CLRs)**

- Understand fiscal functions and public goods to address issues like free riding through models of efficient allocation.
- Analyse externalities, compare tax and regulation solutions, and apply the Coase theorem for efficient outcomes.
- Assess the economic effects of taxation, considering deadweight loss, distortion, tax incidence, and principles of optimal taxation.
- Explore the structure and reforms of the Indian tax system, analyse budget, deficits, public debt, and understand fiscal federalism in India.

**Course Outcomes / Course Learning Outcomes (CLOs)**

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Apply fiscal principles for efficient and equitable public policy, demonstrating application skills.	2	80%	75%
<b>Outcome 2</b>	Analyze externalities, select optimal solutions, and apply the Coase theorem for efficiency, demonstrating analytical skills.	4	80%	75%
<b>Outcome 3</b>	Analyze the impact of taxation on efficiency and equity, considering factors such as deadweight loss and tax incidence, demonstrating strong analytical skills.	4	80%	75%
<b>Outcome 4</b>	Understand the Indian tax system, analyze budget, deficits, and fiscal federalism principles, demonstrating comprehension skills.	2	80%	75%

**Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)**

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	1	1		2	1			1	3		2	2	1	2
Outcome 2	3	2	3		3	1			2	2		3	3	2	3
Outcome 3	3	2	2		2	1			2	3		2	3	2	3
Outcome 4	3	2	2		2	1			2	3		2	2	2	3
Average	3	2	2		2	1			2	3		2	2	2	3

### Course Unitization Plan

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
Unit 1	Public Economic Theory	15		
	Explore the definition and role of fiscal functions in the economic system.	5	1,2	1,2
	Examine characteristics and models for efficient allocation of public goods.	5	1	1
	Analyze the problem of externalities, solutions, and the Coase theorem.	5	1	2,3
Unit 2	Externalities	15		
	Examine the economic problem of externalities and evaluate potential solutions.	6	2	2
	Compare and contrast the effectiveness of taxation and regulatory approaches in addressing externalities.	5	2,3	1,2
	Explore the influence of property rights and the application of the Coase theorem in resolving externalities.	4		2,3
Unit 3	Taxation	14		
	Analyze the overall economic effects of taxation, considering factors such as deadweight loss and distortion.	4	3,4	1,3,4
	Examine the dual considerations of efficiency and equity in the context of taxation.	5	3	1,3,4
	Investigate tax incidence and delve into principles of optimal taxation for effective economic outcomes.	5	3	1,3,4
Unit 4	Indian Public Finances	16		
	Analyze the structure and recent reforms in the Indian tax system.	5	4	1,2,5
	Understand budget components, analyze fiscal deficits, and consider public debt implications.	6	4	1,2,5
	Explore principles and practices of fiscal federalism in the Indian context	5	4	1,2,5
Total Learning hours		60		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	40	40	40	40	50
	Understand					
Level 2	Apply	60	60	60	60	50
	Analyse					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

### Recommended Resources

#### Other Resources

#### Course Designers

1. Dr. Manzoor Hassan Malik, Assistant Professor, Department of Economics, SRM University AP



### GROWTH AND DEVELOPMENT

Course Code	ECO 208	Course Category	CC		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- The students will gain understanding on the concepts of growth and development.
- To assist students in comprehending the theories and strategies of growth and development.
- Evaluate how economic reasoning can be applied to study relevant problems and policies in economics.
- This course exposes students to some of the key ideas and concepts in the areas of economic growth and human development

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Describe and identify the tools for measuring development	1	70%	65%
<b>Outcome 2</b>	Illustrate and trace economic prescriptions to development, concerns hitherto relegated to background like education, health, sanitation and infrastructural development, have found a place of pride in explaining the preference of various economies.	2	70%	65%
<b>Outcome 3</b>	To explain development economic growth theories, international trade development theories, and related economic development theories.	2	70%	65%
<b>Outcome 4</b>	Analyse the issues and challenges of development	2	70%	65%
<b>Outcome 5</b>	Appraise and assess the theories of development useful for Indian Economy	5	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	2	1							2	3	1	2
Outcome 2	3	3	3	3	2	1	1		2			2	3	2	2
Outcome 3	3	3	3	3	2		2		2			2	3	2	2
Outcome 4	3	3	3	3	2	1			3			2	3	2	2
Outcome 5	3	3	3	3	3	1	1		2			3	3	2	2
Average	3	3	3	3	2	1	1		2			2	3	2	2

### Course Unitization Plan

Unit No.		Required Learning hours	CLOs Addressed	References
<b>Unit I</b>	<b>Conceptions of Growth Vs Development</b>	<b>13 hours</b>		
	Distinction between Economic Growth and Development	2		
	Measures and alternative conceptions of development	4	1	1
	Understanding the international variations and disparities	4	1	1
	Comparing development trajectories across nations and within them	3	2	1
<b>Unit II</b>	<b>Theories of Economic Development</b>	<b>12 hours</b>		
	Adam Smith	3	3	2, 3
	Ricardo	2	3	2, 3
	Marx theory of growth	3	3	2, 3
	Schumpeter theory of growth	2	3	2, 3
	Rostow stages of growth	2	3	2, 3
<b>UNIT III</b>	<b>Growth Models and Empirics</b>	<b>14 hours</b>		
	The Harrod-Domar model	3	1, 2	2, 3
	The Solow model and its variants	3	1, 2	2, 3
	Fei and ranis' model	2	1, 2	2, 3
	Lewis model of unlimited supply of labour	3	1, 2	2, 3
	Endogenous growth theories	3	1, 2	2, 3
	Growth vs. Income Distribution Debate: Kuznets Curve			
<b>UNIT IV</b>	<b>Poverty and Inequality: Definitions, Measures and Mechanisms</b>	<b>10 hours</b>		
	Definitions and Measures of Poverty and Inequality	3	1, 2	1
	Determinants of poverty and inequality	3	1, 2	1
	Inequality and development: Causes, consequences, theories	4	1,2	1
<b>UNIT V</b>	<b>Development experience and Critical Evaluation</b>	<b>11 hours</b>		
	Critical evaluation of growth vs development	4	4	2
	Regional disparities and reforms	4	4	2
	Globalization and development	3	4	2
	<b>Total</b>	<b>60 hours</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	60%		60%		40%		40%		50%	
	Understand										
Level 2	Apply	40%		40%		60%		60%		50%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	



## **Recommended Resources**

### **Other Resources**

1. Textbooks:
2. Debraj Ray, Development Economics, Oxford University Press, 2009.
3. Michael Todaro and Stephen Smith, Economic Development, Pearson
4. Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. The Quarterly Journal of Economics, 70(1), 6594.
5. Thirlwall, A. P. (2021). Economics of Development: Theory and Evidence (10th ed.). Red Globe Press.
6. Todaro, M., Smith, S. (2015). Economic development, 12th ed. Chapters 1, 2, 5. Pearson

### **Course Designers**

1. Boddu Srujana, Assistant Professor, Department of Economics, SRM University - AP

### Introductory Econometrics

Course Code	ECO 301	Course Category	Core		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To understand the basics of econometrics.
- To interpret and analyse the results of single and multiple variable regression analysis.
- To apply the topics of regression to various real-life methods.
- To identify and solve the issues arising from violation of OLS assumptions.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	To state and explain the OLS model for single and multiple variable regression	2	75	75
<b>Outcome 2</b>	To interpret and analyse the implications of various single and multiple variable regression	2	75	60
<b>Outcome 3</b>	To run regression on single and multiple variable models	3	60	50
<b>Outcome 4</b>	To identify the anomalies arising from violation of OLS assumptions	2	75	65

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3				3	3			1			3	3	3	2
Outcome 2	3	3	3	1	3	3			1			3	3	3	2
Outcome 3	3	3	3	3	3	3						3	3	3	2
Outcome 4	3	3	3	3	3	3						3	3	3	2
Course Average	3	3	3	2.3	3	3			1			3	3	3	2

### Course Unitization Plan

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit 1</b>	<b>UNIT II – SIMPLE LINEAR REGRESSION MODEL</b>	<b>26</b>		
	Two Variable Case OLS estimation of linear regression model	6	1,2,3	1,2
	Properties of Estimators	1.5	1,2,3	1,2
	Goodness of Fit	1.5	1,2,3	1,2
	Testing of Hypotheses	6	1,2,3	1,2
	Scaling and Units of Measurement	1	1,2,3	1,2
	Confidence Intervals	6	1,2,3	1,2
	The Gauss Markov Theorem	2	1,2,3	1,2
	Forecasting and Prediction	2	1,2,3	1,2
<b>Unit 2</b>	<b>UNIT III- MULTIPLE LINEAR REGRESSION MODEL</b>	<b>6</b>		
	Extension to a multivariate setting	4	1,2,3	1,2
	Introduction of non-linearities through functions of explanatory variables	2	1,2,3	1,2
<b>Unit 3</b>	<b>UNIT IV: Violations of Classical Assumptions</b>	<b>12</b>		
	Consequences, detection, and remedies of multicollinearity	4	1,2,3,4	1,2
	Consequences, detection, and remedies of serial correlation	4	1,2,3,4	1,2
	Consequences, detection, and remedies of heteroscedasticity	4	1,2,3,4	1,2
<b>Unit 4</b>	<b>UNIT V: Specification Analysis</b>	<b>6</b>		
	Inclusion of irrelevant variable and omission of relevant variable	3	1,2,3,4	1,2
	Specification tests	3	2,3,4	1,2
<b>Unit 5</b>	<b>UNIT V: Discrete Choice Models</b>	<b>10</b>		
	Uses of dummy variables in regression	3	2,3,4	1,2
	Linear Probability model	3	2,3,4	1,2
	Logit and Logistic Regression	2	2,3,4	1,2
	Probit Model	2	2,3,4	1,2
<b>Total Learning hours</b>		<b>60</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	80	70	70	60	65
	Understand					
Level 2	Apply	20	30	30	40	35
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### Recommended Resources

1. Introduction to Econometrics: A modern approach, Woolridge,J. (2014). 5th ed. Cengage Learning
2. Essentials of Econometrics, Gujarati,D. Porter,D. (2010), 4th ed. MacGrawHill

### Other Resources

1. Econometrics by Example, Damodar Gujarati (2014), 2nd ed. Palgrave Macmillan
2. Introduction to Econometrics, Dougherty,C, 4th ed. Oxford University Press.

### Course Designers

### Financial Economics

Course Code	ECO 302	Course Category	Core Course (CC)		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To introduce students to financial economics
- To strengthen the students' understanding of the financial sector of the economy

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Understand the basics of financial economics	2	80%	70%
<b>Outcome 2</b>	Evaluate the behaviour of investors under different market conditions.	5	70%	60%
<b>Outcome 3</b>	Understand the basics of money and capital markets	2	80%	70%
<b>Outcome 4</b>	Understand Derivative markets	2	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	3	2	2				2	2	3	3	3	3
Outcome 2	3	3	3	3	2	2				2	2	3	2	2	2
Outcome 3	3	2	3	2	2	2				2	2	3	3	3	3
Outcome 4	3	2	3	2	2	2				2	2	3	3	3	3
Course Average	3	3	3	3	2	2				2	2	3	3	3	3

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit 1</b>	<b>INVESTMENT THEORY AND PORTFOLIO ANALYSIS: DETERMINISTIC CASH FLOW STREAMS</b>	<b>15</b>		
	Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria	3	1	1
	fixed-income securities; bond prices and yields	3	1	1
	interest rate sensitivity and duration; immunization	3	1	1
	the term structure of interest rates; yield curves; spot rates and forward rates	3	1	1
	the term structure of interest rates; yield curves; spot rates and forward rates	3	1	1
<b>Unit 2</b>	<b>SINGLE PERIOD RANDOM CASH FLOWS</b>	<b>15</b>		
	Random asset returns	3	1,2	2
	portfolios of assets	3	1,2	2
	portfolio mean and variance	3	1,2	2
	feasible combinations of mean and variance	3	3	2
	mean-variance portfolio analysis: The Markowitz model and the two-fund theorem	2	3	2
	risk-free assets and the one-fund theorem	1	3	2
<b>Unit 4</b>	<b>CAPITAL ASSET PRICING MODEL</b>	<b>15</b>		
	The capital market line	3	2	2
	the capital asset pricing model; the beta of an asset and of a portfolio	3	2	2
	security market line	3	2	2
	use of the CAPM model in investment analysis and as a pricing formula	6	2	2
<b>Unit 5</b>	<b>OPTIONS AND DERIVATIVES</b>	<b>15</b>		
	Introduction to derivatives and options	2	2,4	2
	forward and futures contracts; options; other derivatives	2	1,2,4	2
	forward and future prices	2	1,2,4	2
	stock index futures	2	1,2,4	2
	interest rate futures	1	1,2,4	2
	the use of futures for hedging	2	1,2,4	2
	duration-based hedging strategies	2	3,4	3
	option markets: call and put options	2	3,4	3
<b>Total Learning hours</b>		<b>60</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	70%	50%	50%	50%	50%
	Understand					
Level 2	Apply					
	Analyse					
Level 3	Evaluate	30%	50%	50%	50%	50%
	Create					
Total		100%	100%	100%	100%	100%

### Recommended Resources

1. David G. Luenberger, Investment Science, Oxford University Press, USA, 1997.
2. Hull, John C., Options, Futures and Other Derivatives, Pearson Education, 6th edition, 2005.
3. Thomas E. Copeland, J. Fred Weston and Kuldeep Shastri, Financial Theory and Corporate Policy, Prentice Hall, 4th edition, 2003.
4. Further Readings:
4. Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance, McGraw-Hill, 7th edition, 2002.
5. Stephen A. Ross, Randolph W. Westerfield and Bradford D. Jordan, Fundamentals of Corporate Finance. McGraw-Hill, 7th edition, 2005.
6. Burton G. Malkiel, A Random Walk Down Wall Street, W.W. Norton & Company, 2003.
7. William Sharpe, Gordon Alexander and Jeffery Bailey, Investments, Prentice Hall of India, 6th edition, 2003.

### Other Resources

### Course Designers

1. Dr. Kamal Sai Sadharma Erra, Assistant Professor, Department of Economics, School of Liberal Arts and Social Sciences

### INDIAN ECONOMY

Course Code	ECO 303	Course Category	Core			L	T	P	C
						4	0	0	4
Pre-Requisite Course(s)	No	Co-Requisite Course(s)	No	Progressive Course(s)					
Course Offering Department	Economics	Professional / Licensing Standards							

#### Course Objectives / Course Learning Rationales (CLRs)

- The aim of this course is to analyse significant changes in economic indicators and policy debates in India during the post-Independence period using appropriate analytical frameworks, with an emphasis on paradigm shifts and turning points.
- The reading list will need to be updated annually due to the rapid changes happening in India.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Know the development process in India after independence	2	70%	65%
<b>Outcome 2</b>	Understand the problems and measures in their contextual perspective	2	70%	65%
<b>Outcome 3</b>	Identify and analyse current issues	2	70%	
<b>Outcome 4</b>	Understand the Indian economy and the major trends in economic indicators and policy debates in India in the post-Independence period, with emphasis on paradigm shifts and turning points	3	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	2	1							2	3	1	2
Outcome 2	3	3	3	3	3	1			2			2	3	2	2
Outcome 3	3	3	3	3	2				2			3	3	1	3
Outcome 4	3	3	3	3	2	1			3			2	3	2	2
Outcome 5	3	2	3	3	2				2			2	3	1	3
Course Average	3	3	3	3	2	1			2			2	3	2	2

**Course Unitization Plan**

Unit No.		Required Learning hours	CLOs Addressed	References
<b>Unit I</b>	<b>Performance of Indian Economy Since 1947</b>	<b>17</b>		
1	Growth and Structural Changes	2	1	1
2	Features/characteristics of Indian economy	2	1	1
3	Human Development Index Traditional Methodology	1	2	1,2
4	Human Development Index: New Methodology	2	2	1,2
5	Sustainable Development	2	2	1,3
6	Capital Formation	2	2	1,2
7	Demographic Transition	2	2	1,2
8	Economic Planning in India	2	2	1
9	Reforms in Indian Economy	2	2	1
<b>Unit II</b>	<b>Key Issues of Indian Economy</b>	<b>9</b>		
10	Issues and Trends of Unemployment	2	3	2,3
11	Poverty in India	2	3	2,3
12	Problem of Inequality	1	3	2,3
13	Issues of Education	2	3	2,3
14	Gender Issues in India	2	3	2,3
<b>UNIT III</b>	<b>Structural Performance of Agrarian Economy</b>	<b>13</b>		
15	Importance and Features of Indian Agricultural	2	1, 2	1,3
16	Trends in Performance and Productivity	2	1, 2	1,3
17	Agricultural Markets and Institutions- Credit	2	1, 2	1,3
18	Land Reforms	2	1, 2	1,3
19	Green Revolution in Indian Agriculture	2	1, 2	1,3
20	Agricultural Labour	1	1, 2	1,3
21	Food Security	2	1, 2	1,3
22	Public Distribution System	1	1, 2	1,3
<b>UNIT IV</b>	<b>Structural Performance of Industrial Sector in India</b>	<b>9</b>		
23	Trends, Productivity, and Growth of Industries	2	1, 2	1,3
24	Industrial Policy in India	2	1, 2	1,3
25	Industrial Sickness	1	1, 2	1,3
26	Small Scale Industries	2	1, 2	1, 3
27	Foreign Direct Investment in India	2	1, 2	1, 3
<b>UNIT V</b>	<b>Government Policies and Regional Institutions</b>	<b>11</b>		
28	Trends and Performance in Services	2	4	2, 3
29	GATT	2	4	2, 3
20	WTO	2	4	2, 3
31	India Foreign Trade	2	4	2, 3
32	Monetary Policy	2	4	2, 3
33	Fiscal Policy.	1	4	2, 3
<b>Total</b>		<b>60</b>		



## Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	60%		60%		40%		40%		50%	
	Understand										
Level 2	Apply	40%		40%		60%		60%		50%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

## Textbooks:

1. Puri, V.K. & Mishra S.K, 2019- Indian Economy. Himalaya Publishing House, New Delhi 2019.
2. Gaurav Datt and Ashwani Mahajan, 2019- Indian Economy. S Chand and Company Limited, New Delhi 2019.
3. Uma Kapila 2019. *Indian Economy since independence: A Comprehensive and Critical Analysis of Indian Economy 1947-2019*. Academic Foundation, New Delhi 2019

## Readings:

1. Jean Dreze and Amartya Sen, 2013. *An Uncertain Glory: India and its Contradictions*, Princeton University Press.
2. Himanshu, 2010, Towards New Poverty Lines for India, *Economic and Political Weekly*, January.
3. Jean Dreze and Angus Deaton, 2009, Food and Nutrition in India: Facts and Interpretations, *Economic and Political Weekly*, February.
4. Kaushik Basu, 2009, —China and India: Idiosyncratic Paths to High Growth, *Economic and Political Weekly*, September.
5. Reetika Khera, 2011, —India's Public Distribution System: zUtilization and Impact, *Journal of Development Studies*.
6. Gaurav Datt and Ashwani Mahajan, 2019- *Indian Economy*. S Chand and Company Limited, New Delhi 2019.
7. Puri, V.K. & Mishra S.K, 2019- *Indian Economy*. Himalaya Publishing House, New Delhi 2019.
8. Jalan, Bimal. *Indian Economy: Problems and Prospects*. Penguin India; New edition, 2004.
9. Kapila, Uma. – *Indian Economy since independence: A Comprehensive and Critical Analysis of Indian Economy 1947-2019*. Academic Foundation, New Delhi 2019.
10. Dipak Mazumdar and Sandeep Sarkar, 2009, —The Employment Problem in India and the Phenomenon of the \_Missing Middle, *Indian Journal of Labour Economics*.
11. J. Dennis Rajakumar, 2011, —Size and Growth of Private Corporate Sector in Indian Manufacturing, *Economic and Political Weekly*, April.
12. Ramesh Chand, 2010, —Understanding the Nature and Causes of Food Inflation, *Economic and Political Weekly*, February.
13. Bishwanath Goldar, 2011, —Organized Manufacturing Employment: Continuing the Debate, *Economic and Political Weekly*, April.

## Recommended Resources

## Other Resources

## Course Designers

1. Dr Ghanshyam Pandey, Assistant Professor, Department of Economics, SRM University AP

**BA/BA(H)/BA(Hons with research) V Semester**

**Summer Internship**

Course Code	ECO 304	Course Category	RDIP		L	T	P	C
					0	0	4	4
Pre-Requisite Course(s)	Summer Immersion	Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department		Professional / Licensing Standards						

**Course Objectives / Course Learning Rationales (CLRs)**

- Identify the key themes and practices relevant to the industry
- Explain the processes and workflows within the organization.
- Apply and connect theoretical knowledge to practical tasks and projects in the workplace.
- Evaluate the effectiveness of different strategies and approaches used by the organization.

**Course Outcomes / Course Learning Outcomes (CLOs)**

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Recognize and recall fundamental industry-specific concepts and practices.	1	70	80
<b>Outcome 2</b>	Interpret and describe the organizational processes and workflows	2	70	80
<b>Outcome 3</b>	Apply and connect theoretical knowledge in practical tasks and projects within the internship setting.	3	70	80
<b>Outcome 4</b>	Assess and critique the effectiveness of strategies and methodologies employed by the organization.	4	70	80

**Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)**

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	0	2	1	2	3	3	2	2	2	3	3	3	2	3	3
Outcome 2	0	2	1	2	3	3	2	2	2	3	3	3	2	3	2
Outcome 3	0	2	1	2	3	3	1	2	2	3	3	3	1	3	3
Outcome 4	0	2	1	2	3	3	1	2	2	3	3	3	3	2	2
Average	0	2	1	2	3	3	1	2	2	3	3	3	2	2	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Contact Hours	CLOs Addressed	References Used
Unit 1	<b>Industry Orientation</b>		1	
	Students engage in activities that help them recognize and recall fundamental industry-specific concepts and practices.			
Unit 2	<b>Process Analysis</b>		2	
	Students interpret and describe the organizational processes and workflows observed during their internship.			
Unit 3	<b>Practical Application</b>		3	
	Students implement theoretical knowledge by completing practical tasks and projects within the internship setting.			
Unit 4	<b>Strategy Evaluation</b>			
	Students assess and critique the effectiveness of strategies and methodologies employed by the organization during their internship.		4	

**Learning Assessment**

Bloom's Level of Cognitive Task		Progress Report (30%)	Internship Report (40%)	Viva (30%)
Level 1	Remember	30%	25%	25%
	Understand			
Level 2	Apply	50%	50%	25%
	Analyse			
Level 3	Evaluate	20%	25%	50%
	Create			
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>

**Recommended Resources****Other Resources****Course Designers**



### CO-CURRICULAR ACTIVITIES

Course Code	VAC 103	Course Category	VAC		L	T	P	C
					0	0	2	2
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	SA	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

1. Develop essential skills, including leadership, communication, and teamwork, among students.
2. Offer opportunities for students to apply academic concepts in practical, real-world scenarios.
3. Promote self-exploration, confidence-building, and social responsibility.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Demonstrate confidence in leading group activities, communicate clearly, and collaborate effectively with diverse teams.	2	80%	75%
<b>Outcome 2</b>	Apply theories to practical tasks by solving problems and adapting concepts to real-life situations through cocurricular activities	2	80%	70%
<b>Outcome 3</b>	Develop new experiences with an open approach through guided reflection to assess personal growth, skills, and learning for holistic development.	3	80%	70%

#### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments 100%			
		CLA-1 25%	CLA-2 25%	CLA-3 25%	CLA-4 25%
<b>Level 1</b>	Remember				
	Understand				
<b>Level 2</b>	Apply	15%	15%	15%	15%
	Analyse				
<b>Level 3</b>	Evaluate	10%	10%	10%	10%
	Create				
<b>Total</b>		<b>25%</b>	<b>25%</b>	<b>25%</b>	<b>25%</b>

### COMMUNITY SERVICE AND SOCIAL RESPONSIBILITY

Course Code	VAC 104	Course Category	VAC		L	T	P	C
					0	0	2	2
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	CEL	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

1. Encourage initiatives that address local needs, foster self-sufficiency, and promote environmental sustainability within the community.
2. Equip participants with a deeper understanding of social issues and a sense of responsibility towards marginalized communities.
3. Inspire active participation in community service programs and foster a culture of giving back among individuals and organizations.
4. Develop and implement programs that contribute to skill development, economic empowerment, and equal opportunities for underprivileged sections of society.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Develop effective strategies for identifying and addressing community needs.	3	80%	80%
<b>Outcome 2</b>	Demonstrate empathy and cultural sensitivity when engaging with diverse community groups.	4	80%	75%
<b>Outcome 3</b>	Implement sustainable solutions and evaluate their impact on social well-being.	5	90%	85%
<b>Outcome 4</b>	Collaborate effectively within teams to design and lead community service projects.	6	90%	80%

#### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments 50%				End Semester Exam 50%
		CLA-1 20%	Mid-1 20%	CLA-2 20%	CLA-3 20%	
<b>Level 1</b>	Remember	10%	10%			20%
	Understand					
<b>Level 2</b>	Apply		10%	10%		20%
	Analyse					
<b>Level 3</b>	Evaluate				10%	10%
	Create					
<b>Total</b>		<b>10%</b>	<b>20%</b>	<b>10%</b>	<b>10%</b>	<b>50%</b>

### Advanced Econometrics

Course Code	ECO 305	Course Category	CC		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)	ECO 405	Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To introduce students to the basic concepts in time series econometrics
- To enable students to grasp the basics of dynamic and simultaneous models

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Apply various tests to detect stationarity in time series data	3	70%	65%
<b>Outcome 2</b>	Evaluate the dynamic time series econometric models in literature	5	70%	65%
<b>Outcome 3</b>	Analyse time series data using various forecasting techniques	4	70%	65%
<b>Outcome 4</b>	Understand and apply the conditional heteroscedastic models in vogue.	3	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	2	1							2	3	1	2
Outcome 2	3	3	3	3	3	1			2			2	3	2	2
Outcome 3	3	3	3	3	2				2			3	3	1	3
Outcome 4	3	3	3	3	2	1			3			2	3	2	2
Course Average	3	2	3	3	2				2			2	3	1	3

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>UNIT I</b>	<b>TIME SERIES ECONOMETRICS – BASIC CONCEPTS</b>	<b>12</b>		
	Introduction to Time Series	2	1	1,2
	Stationary and Non-stationary Time Series	2	1	1,2
	Spurious Regression; Transforming Nonstationary	1	1	1,2
	Unit Root Tests: Dickey Fuller and Augmented Dickey Fuller Tests	3	1	1,2
	Cointegration: Testing for Cointegration, Error Correction Mechanism	3	1	1,2
	Granger Causality Test	1	1	1,2
<b>UNIT II</b>	<b>DYNAMIC ECONOMETRIC MODELS</b>	<b>12</b>		
	Lags in Econometric Models	2	2	2
	Distributed Lag Model	2	2	2
	Autoregressive Lag Model	1	2	2
	Reasons for Lags	3	2	2
	Estimation of Distributed-Lag Model	3	2	2
	The Koyck Approach to Distributed-Lag Model	1	2	2
<b>UNIT III</b>	<b>SIMULTANEOUS EQUATION MODELS</b>	<b>18</b>		
	Nature of Simultaneous-Equations Models	3	3	1
	Simultaneous Equation Bias; Structural Models; Reduced Form Models	3	3	1
	Identification Problem; Rules of Identification	2	3	1
	Tests for Simultaneity and Exogeneity	4	3	1
	Method of Indirect Least Squares	4	3	1
	Method of Two-Stage Least Squares	2	3	1
<b>UNIT IV</b>	<b>TIME SERIES ECONOMETRICS – FORECASTING</b>	<b>11</b>		
	Approaches to Economic Forecasting	2	1,4	3,4
	ARIMA Models	2	1,4	3,4
	The Box-Jenkins Methodology	1	1,4	3,4
	; Vector Autoregression	3	1,4	3,4
	Forecasting with VAR; Testing Causality using VAR.	3	1,4	3,4
<b>UNIT V</b>	<b>VOLATILITY MODELLING</b>	<b>7</b>		
	Introduction to ARCH, GARCH Models-	4	4	2
	Applications- ARCH M- FIGARCH-Properties of GARCH Process	2	4	2
	Fit and Diagnostics-Other Models of Conditional Variance.	1	4	2
<b>Total Learning hours</b>		<b>60</b>		



### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember					
	Understand					
Level 2	Apply	60%	60%	60%	60%	50%
	Analyse					
Level 3	Evaluate	40%	40%	40%	40%	50%
	Create					
Total		100%	100%	100%	100%	100%

### Recommended Resources

1. Gujarati, D. N. (2016). Econometrics by Example (2nd ed.). New Delhi: Palgrave.
2. Wooldridge, J. M. (2002). Econometric Analysis of Cross Section and Panel Data. Massachusetts: MIT Press.
3. Gujarati, D. N., Porter, D.C., & Gunasekar, S. (2017). Basic Econometrics. (5th ed.). New Delhi: McGraw Hill.
4. Studenmund, A. H. (2016). Using Econometrics: A Practical Guide. (7th ed.). New Delhi: Pearson

### Other Resources

1. Enders, W. (2013). Applied Econometric Time Series (3rd ed.). New York: John Wiley & Sons.
2. Greene, W. H. (2003). Econometric Analysis (5th ed.). New Delhi: Pearson Education.
3. Hamilton, J. D. (1994). Time Series Analysis. Princeton: Princeton University Press.
4. Koutsoyiannis, A. (1973). Theory of Econometrics. New York: Harper & Row.
5. Pindyck, R. S., & Rubinfeld, D. L. (1990). Econometric Models and Econometric Forecasts (4th ed.). New York: McGraw-Hill.

### Course Designers

1. Dr Kamal Sai Sadharma Erra, Assistant Professor, Department of Economics, SRM University- AP.
2. Dr Ravinder Reddy, Professor, School of Management, NIT, Warangal
3. Dr Raja Sethu Durai, Professor, School of Economics, University of Hyderabad

### Environmental Economics and Policies

Course Code	ECO 306	Course Category					L	T	P	C
							4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)						
Course Offering Department	Economics	Professional / Licensing Standards								

#### Course Objectives / Course Learning Rationales (CLRs)

- To understand the economic perspectives on challenging environmental issues.
- To understand human economy and environmental linkages.
- To understand public goods, externalities, and market failure.
- To examine environmental policy measures and introduction to environmental valuation.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Gain a foundational understanding of economic principles relevant to environmental issues.	3	80%	70%
<b>Outcome 2</b>	Limitations of economic analysis of environmental issues.	3	80%	70%
<b>Outcome 3</b>	Application of economic theories and formulation of views on the potential of economics.	2	80%	70%
<b>Outcome 4</b>	Learn about environmental and climate change policy making in India and the world	3	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	2	2	1				2	2	1	2	3	3	2
Outcome 2	3	3	2	2	1				2	2	1	2	3	3	2
Outcome 3	3	3	2	2	2				2	2	1	2	3	3	2
Outcome 4	3	3	2	2	2				2	2	1	2	3	3	2
Course Average	3	3	2	2	2				2	2	1	2	3	3	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit 1</b>	<b>Introduction</b>	<b>15 hrs</b>		
1	Nature and scope, overview of environmental issues	03	01, 02, 03	01, 02
2	Concept of ecological economics	03	01, 02, 03	01, 02
3	Human economy and environmental linkages	03	01, 02, 03	01, 02
4	National income and environmental accounting	03	01, 02, 03	01,02
5	Economic perspectives on the environment	03	01, 02, 03	01, 02
<b>Unit 2</b>	<b>Public Goods and Externalities</b>	<b>15 hrs</b>		
	Environmental externalities	03	01, 02, 03	01, 02, 03
	Market inefficiencies	03	01, 02, 03	01, 02, 03
	Resource allocation	04	01, 02, 03	01, 02, 03
	Common property	02	01, 02, 03	01, 02, 03
	Tragedy of commons and public goods	03	01, 02, 03	01, 02, 03
<b>Unit 3</b>	<b>Environmental Policy and Valuation</b>	<b>18 hrs</b>		
	Theory of environmental policy	02	02, 03, 04	02, 03, 05
	Cost benefit analysis	03	02, 03, 04	02, 03, 05
	Environmental valuation methods	03	02, 03, 04	02, 03, 05
	Stated preference, revealed preference and production function approach	02	02, 03, 04	02, 03, 05
	environmental regulation, command, and control versus economic instruments,	02	02, 03, 04	01, 02, 03
	Coase the theorem, Pigouvian tax	02	02, 03, 04	01, 02, 03
	Global managing of renewable energy resources	02	02, 03, 04	01, 02, 03
	Energy and environment interaction, trade, and environmental valuation	02	02, 03, 04	01, 02, 03
<b>Unit 4</b>	<b>Sustainable Development and Global climate change</b>	<b>12 hrs</b>		
	Introduction to SDGs, Weak vs Strong sustainability	03	02, 03, 04	01, 02, 04
	economics of global climate change, sustainable development metrics	03	02, 03, 04	01, 02, 04
	Environmental laws and institutions, environment and its impact on biosphere	03	02, 03, 04	01, 02, 04
	environmental institutions, and gross root movements	03	02, 03, 04	01, 02, 04
<b>Total Learning hours</b>		<b>60 hrs</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (60%)				End Semester Assessments (40%)
		CLA-1 (15%)	Mid-1 (15%)	CLA-2 (15%)	CLA-3 (15%)	
Level 1	Remember	40%	40%	40%	40%	40%
	Understand					
Level 2	Apply	60%	60%	60%	60%	60%
	Analyse					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

### Recommended Resources

1. . Kostlad, Intermediate Environmental Economics, Oxford University Press
2. 2. Phanuef and Requate, A Course in Environmental Economics: Theory, Policy and Practice, Cambridge University Press
3. 3. Barry.C.Field and Martha K.Field, Environmental Economics: An Introduction, McGraw Hill
4. 4. Hamley N., J.F.Shogern and B.White (1997), Environmental Economics in Theory and Practice, Macmillan.
5. 5. Allen, R.G.D (2008), Mathematical Analysis for Economists, Macmillan Press, London

### Other Resources

### Course Designers

1. Internal (Institutional) Subject Matter Experts: Dr. Manish Kumar
2. Expert Reviewers from Institutes of National Importance / Institutes of International Repute
3. Dr. Raja Durai, School of Economics
4. Prof J Maria Saleth, MIDS, Chennai

### International Economics

Course Code	ECO 307	Course Category	Core Course (CC)		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)	Eco 202, Eco 203	Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To introduce the basics of international economics.
- To introduce both classical and modern theories of international trade.
- To develop a systematic exposition of models that try to explain the composition, direction, and consequences of international trade and the determinants and effects of trade policy

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Understand the basics of international economics.	2	80%	75%
<b>Outcome 2</b>	Demonstrate their understanding of the economic concepts of trade theory.	3	80%	75%
<b>Outcome 3</b>	Deal with simple algebraic problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of free trade and protection, demonstrate their understanding of the usefulness and problems related to topics in international trade, and demonstrate their critical understanding of trade policies.	3	80%	75%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	2	2	3	2				2	3	2	2			
Outcome 2	3	3	2	3	2				2	3	2	2			
Outcome 3	3	3	2	3	2				2	3	2	2			
Average	3	3	2	3	2				2	3	2	2			

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit 1</b>	<b>Introduction and Essentials</b>	<b>07 hrs</b>		
1	The subject matter of international economics	01	01	01, 02
2	Trade Based on Comparative Advantage	02	01	01, 02
3	Misconceptions about comparative advantage	02	01	01, 02
4	Comparative advantage in practice	02	01	01,02
<b>Unit 2</b>	<b>The Standard Theory of International Trade, Offer Curves and the Terms of Trade</b>	<b>10 hrs</b>		
5	The Basis for and the Gains from Trade with Increasing Costs	02	01	02, 03
6	Trade Based on Differences in Tastes	02	01	02, 03
7	The Equilibrium Relative Commodity Price with Trade – Partial Equilibrium Analysis & General Equilibrium Analysis	03	01	02, 03
8	Terms of Trade	03	01	02, 03
<b>Unit 3</b>	<b>The Heckscher - Ohlin Theory, Economies of Scale, Imperfect Competition and International Trade</b>	<b>16 hrs</b>		
9	Heckscher-Ohlin Theory; Factor-Price Equalization	03	02	02, 01
10	Effect of Trade on Income Distribution	02	02	02, 01
11	Empirical Tests of the Heckscher-Ohlin Model–The Leontief Paradox	02	02	02, 01
12	Empirical relevance of the H-O theory in the current period	02	02	02, 01
13	Economies of Scale and International Trade	02	02	02, 01
14	Imperfect Competition and International Trade-Intra industry trade	03	02	02, 01
15	Technological gap and Product Cycle models	02	02	02, 01
<b>Unit 4</b>	<b>Trade Restrictions: Tariffs and Nontariff Trade Barriers; and Economic Integration</b>	<b>17 hrs</b>		
16	Partial Equilibrium Analysis of a Tariff	03	03	02, 01
17	General Equilibrium Analysis of a Tariff in a Small Country – Import Quotas	03	03	02, 01
18	Other Non-tariff Barriers	03	03	02, 01
19	Neo- Protectionism	02	03	02, 01
20	Trade-Creating Customs Unions	02	03	02, 01
21	Trade-Diverting Customs Unions	02	03	02, 01
22	Multilateralism –WTO	02	03	02, 01
<b>Unit 5</b>	<b>The Balance of Payments, Foreign Markets and Exchange Rate Determination</b>	<b>10 hrs</b>		
23	Balance of Payments–Principles	02	03	01, 04
24	Functions of the Foreign Exchange Markets	02	03	01, 04
25	Foreign Exchange Rates	02	03	01, 04
26	Purchasing Power Parity Theory	02	03	01, 04
27	Stable and Unstable Foreign Exchange Markets	02	03	01, 04
<b>Total Learning hours</b>		<b>60 hrs</b>		

### **Learning Assessment**

Bloom's Level of Cognitive Task		Continuous Learning Assessments (60%)				End Semester Assessments (40%)
		CLA-1 (15%)	Mid-1 (15%)	CLA-2 (15%)	CLA-3 (15%)	
Level 1	Remember	60%	60%	60%	60%	60%
	Understand					
Level 2	Apply	40%	40%	40%	40%	40%
	Analyse					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

### **Recommended Resources**

1. Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 12th edition, 2016.
2. Krugman, P., Obstfeld, M., Melitz, M. (2018). International Economics -Theory and Policy, 11th ed. Pearson Education.
3. Marrewijk, C.V. (2007). International Economics: Theory, Application, and Policy. Oxford University Press.
4. Bowen, H., Hollander A. & Viaene J. (2012). Applied International Trade Analysis. London: Macmillan Publication

### **Other Resources**

### **Course Designers**

1. Manzoor Hassam Malik, Assistant Professor, Department of Economics, SRM University-AP

### Time Series Econometrics

Course Code	ECO 401	Course Category	CC		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)	ECO 205	Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To introduce students to the basic concepts in time series econometrics
- To enable students to grasp the basics of dynamic and simultaneous models

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Apply various tests to detect stationarity in time series data	3	70%	65%
<b>Outcome 2</b>	Evaluate the dynamic time series econometric models in literature	5	70%	65%
<b>Outcome 3</b>	Analyse time series data using various forecasting techniques	4	70%	65%
<b>Outcome 4</b>	Understand and apply the conditional heteroscedastic models in vogue.	3	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	2	1							2	3	1	2
Outcome 2	3	3	3	3	3	1			2			2	3	2	2
Outcome 3	3	3	3	3	2				2			3	3	1	3
Outcome 4	3	3	3	3	2	1			3			2	3	2	2
Course Average	3	2	3	3	2				2			2	3	1	3



**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>UNIT I</b>	<b>TIME SERIES ECONOMETRICS – BASIC CONCEPTS</b>	<b>12</b>		
	Introduction to Time Series	2	1	1,2
	Stationary and Non-stationary Time Series	2	1	1,2
	Spurious Regression; Transforming Nonstationary	1	1	1,2
	Unit Root Tests: Dickey Fuller and Augmented Dickey Fuller Tests	3	1	1,2
	Cointegration: Testing for Cointegration, Error Correction Mechanism	3	1	1,2
	Granger Causality Test	1	1	1,2
<b>UNIT II</b>	<b>DYNAMIC ECONOMETRIC MODELS</b>	<b>12</b>		
	Lags in Econometric Models	2	2	2
	Distributed Lag Model	2	2	2
	Autoregressive Lag Model	1	2	2
	Reasons for Lags	3	2	2
	Estimation of Distributed-Lag Model	3	2	2
	The Koyck Approach to Distributed-Lag Model	1	2	2
<b>UNIT III</b>	<b>SIMULTANEOUS EQUATION MODELS</b>	<b>18</b>		
	Nature of Simultaneous-Equations Models	3	3	1
	Simultaneous Equation Bias; Structural Models; Reduced Form Models	3	3	1
	Identification Problem; Rules of Identification	2	3	1
	Tests for Simultaneity and Exogeneity	4	3	1
	Method of Indirect Least Squares	4	3	1
	Method of Two-Stage Least Squares	2	3	1
<b>UNIT IV</b>	<b>TIME SERIES ECONOMETRICS – FORECASTING</b>	<b>11</b>		
	Approaches to Economic Forecasting	2	1,4	3,4
	ARIMA Models	2	1,4	3,4
	The Box-Jenkins Methodology	1	1,4	3,4
	; Vector Autoregression	3	1,4	3,4
	Forecasting with VAR; Testing Causality using VAR.	3	1,4	3,4
<b>UNIT V</b>	<b>VOLATILITY MODELLING</b>	<b>7</b>		
	Introduction to ARCH, GARCH Models-	4	4	2
	Applications- ARCH M- FIGARCH-Properties of GARCH Process	2	4	2
	Fit and Diagnostics-Other Models of Conditional Variance.	1	4	2
<b>Total Learning hours</b>		<b>60</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember					
	Understand					
Level 2	Apply	60%	60%	60%	60%	50%
	Analyse					
Level 3	Evaluate	40%	40%	40%	40%	50%
	Create					
Total		100%	100%	100%	100%	100%

### Recommended Resources

1. Gujarati, D. N. (2016). Econometrics by Example (2nd ed.). New Delhi: Palgrave.
2. Wooldridge, J. M. (2002). Econometric Analysis of Cross Section and Panel Data. Massachusetts: MIT Press.
3. Gujarati, D. N., Porter, D.C., & Gunasekar, S. (2017). Basic Econometrics. (5th ed.). New Delhi: McGraw Hill.
4. Studenmund, A. H. (2016). Using Econometrics: A Practical Guide. (7th ed.). New Delhi: Pearson

### Other Resources

1. Enders, W. (2013). Applied Econometric Time Series (3rd ed.). New York: John Wiley & Sons.
2. Greene, W. H. (2003). Econometric Analysis (5th ed.). New Delhi: Pearson Education.
3. Hamilton, J. D. (1994). Time Series Analysis. Princeton: Princeton University Press.
4. Koutsoyiannis, A. (1973). Theory of Econometrics. New York: Harper & Row.
5. Pindyck, R. S., & Rubinfeld, D. L. (1990). Econometric Models and Econometric Forecasts (4th ed.). New York: McGraw-Hill.

### Course Designers

1. Kamal Sai Sadharma Erra, Assistant Professor, Department of Economics, SRM University AP.

**SRM University – AP, Andhra Pradesh**  
 Neerukonda, Mangalagiri Mandal  
 Guntur District, Mangalagiri, Andhra Pradesh 522240

### Industrial Organization

Course Code	ECO 402	Course Category	Core Course (CC)	L-T/D-P/Pr-C	4	0	0	4
Total Learning hours			Total Learning Hours					
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						
Board of Studies Approval Date		Academic Council Approval Date						

### Course Objectives:

- To provide students with an understanding of different market structures and their implications for firm behavior and market outcomes
- To develop students' ability to analyze strategies used by firms in competitive and non-competitive markets
- To explore the role of government regulation and antitrust policies in shaping market behavior, promoting competition, and protecting consumer welfare
- To enable students to apply economic models to assess real-world cases in industrial organization, focusing on issues such as mergers, barriers to entry, and technological innovation

### Course Outcomes (COs):

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Demonstrate and identify the characteristics of different market structures (e.g., monopoly, oligopoly) and describe how these structures affect firm behaviour and market performance.	2	80%	70%
<b>Outcome 2</b>	Apply and analyze firm strategies such as pricing, product differentiation, and entry/exit decisions in various competitive environments and demonstrate how these strategies impact market dynamics.	3	80%	70%
<b>Outcome 3</b>	Critically evaluate the effects of government regulations and antitrust policies on market competition	5	80%	70%
<b>Outcome 4</b>	Apply theoretical models introduced in lectures to real-world cases, analyzing firm behaviour	3	80%	70%

### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)													
	Scientific and Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	2	2	1			2	2	1	2	3	3	2
Outcome 2	3	3	2	2	2			2	2	1	2	3	3	2
Outcome 3	3	3	2	2	2			2	2	1	2	3	3	2
<b>Course Average</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>			<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>

### Course Unitization Plan

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit 1</b>	<b>Introduction</b>	<b>15 hrs</b>		
1	Introduction to Industrial Organization	03		
2	Review of Basic Microeconomic Theory: Technology and Costs	05	01	01, 02
3	Competition versus Monopoly	03	01	01, 02
4	Monopoly Pricing Schemes	04	01	01, 02
<b>Unit 2</b>	<b>Market Structure and Market Power</b>	<b>15 hrs</b>		
8	Concentration Measures and Evidence	05	01,03	02, 03
9	Cost and Non-Cost Determinants of Market Structure	05	01,03	02, 03
10	SCP Paradigm	05	01,03	02, 03
<b>Unit 3</b>	<b>Anticompetitive Behavior and Antitrust Policy</b>	<b>15 hrs</b>		
12	Entry Deterrence	05	02	02, 01
13	Predatory Conduct	05	02	02, 01
14	Price Fixing, Repeated Interaction, and Antitrust Policy	05	02	02, 01
<b>Unit 5</b>	<b>LABOUR AND INDUSTRIAL ORGANIZATION</b>	<b>15 hrs</b>		
21	Role of labour markets in industrial settings, wage-setting practices, labour unions, and bargaining power	04	04	02,03
22	Labour choices and strategies in an industry	04	04	02,03
23	Heterodox critiques of firm behavior and labour relations	03	04	02,03
24	Alternative frameworks: segmented labor markets, the dual labor market theory, and informal labor markets	04	04	02,03
<b>Total Learning hours</b>		<b>60 hrs</b>		

## Recommended Resources

1. Belleflamme, P., and Peitz, M. (2015). Industrial Organization: Markets and Strategies (2nd ed.). Cambridge: Cambridge University Press
2. Bowles, S., & Gintis, H. (1990). "Contested Exchange: New Microfoundations of the Political Economy of Capitalism," *Politics & Society*, 18(2)
3. Cabral Luis M.B. (2000). Introduction to Industrial Organization (1st ed). The MIT Press.
4. Joskow, Paul L., Transaction Cost Economics, Antitrust Rules and Remedies. Journal of Law, Economics, and Organization, Vol. 18, No. 1, pp. 95-116, 2002
5. Perloff Jeffrey M. and Dennis W. Carlton (2015). Modern Industrial Organization (4th ed.). Pearson
6. Tirole Jean (1988). The Theory of Industrial Organization (1st ed.). The MIT Press
7. W. Viscusi, J. Vernon, and J. Harrington (2018). Economics of Regulation and Antitrust. The MIT Press.
8. Pepall, Richards and Norman, Industrial Organization: Contemporary Theory and Applications, 2014, Fifth Edition

## Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (60%)				End Semester Assessments (40%)
		CLA-1 (15%)	Mid-1 (15%)	CLA-2 (15%)	CLA-3 (15%)	
Level 1	Remember	40%	40%	40%	40%	40%
	Understand					
Level 2	Apply	60%	60%	60%	60%	60%
	Analyse					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

## Course Designers:

Dr Vineesh Prakash, Assistant Professor, Department of Economics, SRM University – AP

Boddu Srujana, Assistant Professor, Department of Economics, SRM University - AP

### Research Methodology

Course Code	ECO 403	Course Category	Core Course (CC)		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To devote methods and statistics that are required to develop skills to undertake research.
- It aims to equip students with research Methodology that deals with the general logic of scientific inquiry, research design, sampling, measurement, and the techniques of certain “structured” and “unstructured” methods of data collection.
- To develop a few complementary designs, measurement, and data collection approaches to bring evidence to bear on the problem.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Describe a research problem	2	70%	70%
<b>Outcome 2</b>	Explain the research process, previous research studies and ethics in social science research.	2	70%	70%
<b>Outcome 3</b>	Demonstrate preparation of a research proposal	2	70%	70%
<b>Outcome 4</b>	Discuss the quality of evidence in published social sciences research.	2	70%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	2	3	3	2				3			3	3	3	3
Outcome 2	2	1	3	1	3				3			3	3	3	3
Outcome 3	2	1	3	1	3				3			3	3	3	3
Outcome 4	2	1	3	1	3				3			3	3	3	3
Course Average	2	1	3	2	3				3			3	3	3	3

## Course Unitization Plan

Sl. No	Description of Topic	Required Learning hours	CLOs Addressed	References Used
<b>UNIT I</b>	<b>Research in Social Sciences</b>	<b>5</b>		
1.	What social research is and how it differs from decision support systems; Different types of research studies	2	1,2	1,2
2.	Nature of the research process; Ethics in social sciences research	1	1,2	1,2
3.	The purposes and process of exploratory research, two types and three levels of research decision-related secondary sources	2	2	1,2
<b>UNIT II</b>	<b>Thinking Like a Researcher</b>	<b>6</b>		
4.	The terminology used by professional researchers employing scientific thinking	2	3	3,4
5.	What you need to formulate a solid research hypothesis	2	3	3,4
6.	The need for sound reasoning to enhance business research results	2	3	3,4
<b>UNIT III</b>	<b>The Research Process: An Overview</b>	<b>9</b>		
7.	Research is decision- and dilemma-centered	2	4	2,3
8.	Research question, analysis and direction for the research, value assessments	2	1,4	
9.	Data collection, data analysis, and reporting	3	3,4	2,3
10.	Stages of research design	2	3,4	2,3
<b>UNIT IV</b>	<b>Academic Writing and software Application</b>	<b>10</b>		
11.	Literature Review, Descriptive, Persuasive, Expository and Narrative writing	3	4	1,2
12.	Weaving together critical thinking, logic and evidence, technicalities of grammar and syntax, formatting, and citations	3	2,3	4,5
13.	Software tutorials, practical assignments and exercises, case studies, live projects	4	2,3	4,5
	<b>Total learning hours</b>		<b>30</b>	

## Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	100%		100%		100%		100%		100%	
	Understand										
Level 2	Apply										
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

## Recommended Resources

1. Alasuutari, P., Bickman, L., and Brannen, J. (2009). The Sage Handbook of Social Research Methods. Los Angeles: Sage.
2. Bailey, K.D. (1994). Methods of Social Research. New York: Toronto.
3. Becker, H., and Richards, P. (2007). Writing for Social Scientists. Enskede: TPB.
4. Bhandarkar. (2010). Methodology and Techniques of Social Research. New Delhi: Himalayan Books.
5. Cooper, D. R., and Schindler, P. S. (2014). Business Research Method. New York, NY: McGraw-Hill/Irwin. (Primary Text)

### **Other Resources**

1. . Howitt, D., and Cramer, D. (2011). Introduction to Research Methods. Welwyn Garden City: Pearson Education UK.
2. 7. Matthews, B., and Ross, L. (2010). Research Methods. Harlow: Pearson Education.
3. 8. May, T. (2011). Social Research: Issues, Methods and Process. Maidenhead, Berkshire: Open University Press.
4. 9. Neuman, W. (2011). Social Research Methods. 7th Edition. Boston: Allyn and Bacon.
5. 10. Neuman, W. L. (2011). Social Research Methods Qualitative and Quantitative Approaches. Boston: Pearson Education.
6. 11. O'Leary, Z. (2010). Researching Real World Problems. London: Sage.
7. 12. O' Leary, Z. (2017). The Essential Guide to doing Your Research Project. London: Sage.
8. 13. Thomas, C., and Maurice, S. (2013). Managerial Economics (11th Edition)
9. 14. Van Zyl, L., Salkind, N., and Green, S. Research Methodology for the economic and Management Sciences.

### **Course Designers**

1. Erra Kamal Sai Sadharma, Assistant Professor, Department of Economics, SRM University - AP



### Economic Growth

Course Code	ECO 405	Course Category	CC		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)	Growth and Development	Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- Develop a comprehensive understanding of advanced growth theories, including human capital, endogenous growth, and the role of technology, and critically assess their applications in diverse economic contexts.
- Understand and critique the frameworks and policies related to growth and development
- Evaluate the implications of globalization on various development parameters such as labour markets, inequality, global value chains, and foreign direct investment, and evaluate policy responses to balance the benefits and challenges of globalization.
- Investigate current issues such as digitalization, the future of work, health crises, and social inclusion, and analyze how these affect economic development strategies and require new policy interventions to foster equitable growth.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Define advanced and key theories and concepts in contemporary economic growth and sustainable development	1	70%	65%
<b>Outcome 2</b>	Interpret the relationships between globalization, policy strategies, and economic development	2	70%	65%
<b>Outcome 3</b>	Apply theoretical models of economic growth to analyze real-world scenarios, such as assessing the effects of financial inclusion or technological adoption on development outcomes in a specific country.	3	70%	65%
<b>Outcome 4</b>	Compare and contrast various policy approaches to economic development and globalization, evaluating their effectiveness in addressing social and economic challenges	4	70%	65%
<b>Outcome 5</b>	Critically assess emerging development issues, such as digitalization, health crises, and the future of work, using evidence-based arguments to propose sustainable and inclusive solutions.	5	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	2	1							2	3	1	2
Outcome 2	3	3	3	3	2	1	1		2			2	3	2	2
Outcome 3	3	3	3	3	2		2		2			2	3	2	2
Outcome 4	3	3	3	3	2	1			3			2	3	2	2
Outcome 5	3	3	3	3	3	1	1		2			3	3	2	2
Average	3	3	3	3	2	1	1		2			2	3	2	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit I</b>	<b>Understanding Economic Growth</b>	<b>15 hours</b>		
1	The Data of Growth and Development	4	1	1
2	Other “Stylized Facts”	2	1	1
3	Why are some countries being Poor and some are being so Rich?	3	1	1
4	What is the Engine of Economic Growth	3	1	1
5	How do we Understand Growth Miracles?	3	1	1
<b>Unit II</b>	<b>Classic Growth Models</b>	<b>15 hours</b>		
6	Rostow’s Stages of Growth	2	3	2, 3, 8
7	The Harrod-Domar model	2	3	2, 3, 8
8	The Solow model	3	3	2, 3
9	Technology and the Solow Model	4	3	2, 3, 8
10	The Solow Model with Human Capital	4	3	2, 3, 8
<b>UNIT III</b>	<b>Endogenous growth Models</b>	<b>15 hours</b>		
11	The Basic Elements of the Romer Model	3	1, 2	2, 3
12	Growth in the Romer Model	3	1, 2	2, 3
13	A Simple Endogenous Growth Model with technology transfer	3	1, 2	2, 3
14	Steady-State Analysis	3	1, 2	2, 3
15	Understanding Differences in Growth Rates	3	1, 2	2, 3
<b>UNIT IV</b>	<b>Growth experiences of different regions</b>	<b>15 hours</b>		
16	Post-War Reconstruction of Germany and Japan	5	1, 2	1
17	The Asian Economic Miracle	5	1, 2	1
18	The Chinese Growth Miracle	5	1, 2	1
	<b>Total</b>	<b>60 hours</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	60%		60%		40%		40%		50%	
	Understand										
Level 2	Apply	40%		40%		60%		60%		50%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### Recommended Resources

1. Enter Data

### Other Resources

1. Aghion, P., & Howitt, P. (2009). The Economics of Growth. *MIT Press*
2. Barbier, E. B. (2005). Natural Resources and Economic Development. *Cambridge University Press*
3. Chang, H.-J. (2003). Globalization, Economic Development and the Role of the State.
4. Dasgupta, P., & Heal, G. (1979). Economic Theory and Exhaustible Resources.
5. Goldsmith, R. W. (1969). Financial Structure and Development.
6. Jones, C. I. (2016). Introduction to Economic Growth (3rd ed.). *W.W. Norton*
7. Krugman, P., & Obstfeld, M. (2017). International Economics: Theory and Policy. *Chapters on globalization and trade*.
8. Sachs, J. D. (2015). The Age of Sustainable Development. *Columbia University Press*
9. Thirlwall, A. P. (2021). Economics of Development: Theory and Evidence (10th ed.). *Red Globe Press*.

Further readings may be suggested as per the course.

### Course Designers

1. Dr Vineesh Prakash, Assistant Professor, Department of Economics, SRM University – AP
2. Boddu Srujana, Assistant Professor, Department of Economics, SRM University - AP

### Dissertation

Course Code	ECO 404	Course Category	Other Courses (P)		L	T	P	C
					0	0	14	14
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

### Course Objectives / Course Learning Rationales (CLRs)

- To widen the understanding of doing research.
- To facilitate the ideation of a thought.
- To devise and plan ways to execute an idea.
- To learn how to avoid plagiarism and publish one's contribution in the research community.

### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Conceptualize an idea	5	75%	70%
<b>Outcome 2</b>	Devise a plan to do the literature survey on the idea	5	75%	70%
<b>Outcome 3</b>	Formulate the mathematical model for the problem.	4	75%	70%
<b>Outcome 4</b>	Assess the relevance and societal impact of the work	5	70%	65%
<b>Outcome 5</b>	Write a technical paper and report the findings.	3	75%	70%

### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	2	2	3	3	1	1	3	3	3	2	3	2	1	3
Outcome 2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Outcome 3		2				3	3	3			3	3	2	1	3
Outcome 4	3	1	1	3	3			3	3	3		3	3	3	3
Outcome 5	3	2	2	3	3	2	2	3	3	3	3	3	3	2	3
Average	3	2	2	3	3	1	1	3	3	3	2	3	2	1	3

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit 1</b>	<b>Conception of Idea</b>	<b>40</b>		
	Based on interest conceive an idea	30	1,4	1
	Do a feasibility check of the project	10	1,4	1
<b>Unit 2</b>	<b>Submission of Abstract of the idea</b>	<b>70</b>		
	Literature survey of the related works	50	2	1,2,3,4,5
	Write an abstract of the proposed idea	20	2	1
<b>Unit 3</b>	<b>Formulate the Econometric model</b>	<b>50</b>		
	Formulate the econometric model for the considered problem	40	3	1
	Creating timeline for execution of various module of the project.	10	3	1,6
<b>Unit 4</b>	<b>Run the Regression and Publish results</b>	<b>80</b>		
	Execution of the various modules of the project and intermediate report submission.	40	3	1
	Initiation of the process for a possible publication.	40	5	2,3,4,5
<b>Total Learning hours</b>		<b>240</b>		

**Learning Assessment**

Bloom’s Level of Cognitive Task		Continuous Learning Assessments (50%)								External (50%)	
				Internal							
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember										
	Understand										
Level 2	Apply				70%						30%
	Analyse										
Level 3	Evaluate				30%						70%
	Create										
Total					100%						100%

**Recommended Resources**

1. As recommended by Advisor pertaining to student research interest.
2. [https://owl.purdue.edu/owl/purdue\\_owl.html](https://owl.purdue.edu/owl/purdue_owl.html)
3. <https://www.sciencedirect.com/>
4. [www.springer.com](http://www.springer.com)
5. <https://onlinelibrary.wiley.com/>
6. Research Methodology

**Other Resources**

1. No Data

**Course Designers**

1. Dr. Mohana Rao Balaga, Assistant Professor, Department of Economics, SRM University, AP.



### BASIC STATISTICS

Course Code	ECO 241	Course Category				
			L	T	P	C
			3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)		
Course Offering Department	Economics	Professional / Licensing Standards				

#### Course Objectives / Course Learning Rationales (CLRs)

- To familiarize students with the statistical techniques employed in not only economics, but increasingly, all social and pure scientific research.
- Will help students understand descriptive statistics.
- To customize the importance of basic statistics for social science students.
- To enable students to utilize statistical tools for data analysis and interpretation.
- application to the solution of farm, agribusiness, and agricultural industry problems.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Using statistical techniques to solve quantitative, data-based problems, analyse, and infer.	2	70%	65%
<b>Outcome 2</b>	Estimate and comprehend the descriptive statistics	3	70%	65%
<b>Outcome 3</b>	Analyse and interpret correlations and regressions.	4,5	70%	65%
<b>Outcome 4</b>	Skilled in using statistical techniques for quantitative, data-based problems, analysis, and inference.	4,5	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	2	3	3	3	3	2			3			3	3	2	1
Outcome 2	2	3	1	3	3	2			3			3	1	2	3
Outcome 3	2	3	3	3	3	2			3			3	3	3	3
Outcome 4	2	3	1	3	3	2			3			3	3	1	3
Average	2	3	2	3	3	2			3			3	2	2	3

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit I</b>	<b>Introduction</b>	<b>13</b>		
1	Meaning and Definition of Statistics	2	1	1
2	Function—Importance—Limitations	2	1	1
3	Structure of Data, Frequency Distribution	3	1	1
4	Collection and Tabulation of Statistical Data	2	1	1
5	Presentation of Statistical data	2	1	1
6	Graphs and Diagrams.	2	1	1
<b>Unit II</b>	<b>Measures of Central Tendency</b>	<b>18</b>		
7	Mean, Median, Mode for Ungrouped and Grouped data,	5	2	1
8	Geometric Mean and Harmonic Mean, Graphical Presentation of Data, Line diagram	4	2	1
9	Bar Diagram, Ogive, Histogram,	4	2	1
10	Frequency Polygon Frequency Curves	2	2	1
11	Range, Mean Deviation, Standard Deviation	4		
12	Coefficient of Variation, Quartile Deviation, Coefficient of Quartile Deviation	4	3	1,2
<b>Unit III</b>	<b>Measures of Dispersion</b>	<b>11</b>		
13	Methods of Studying Skewness	3	3	1,2
14	Karl Pearson's Co-efficient of Skewness	4	3	1,2
15	Bowley's Co-efficient of Skewness	4	3	1,2
<b>Unit IV</b>	<b>Correlation</b>	<b>14</b>		
16	Meaning, Correlation: Scattered diagram	2	4	1,2
17	Correlation: Scattered diagram	2	4	1,2
18	Partial and Multiple correlation,	4	4	1,2
19	Coefficients of Correlation, Karl Pearson, and Rank Correlation	4	4	1,2
20	Spearman Rank Correlation Coefficient	2	4	1,2
<b>Unit V</b>	<b>Regression</b>	<b>13</b>		
21	Meaning, Uses—Fitting Regression Line	4	4	1,2
22	Regression Equation	5	4	1,2
23	Relation between Regression Coefficient and Correlation Coefficient	4	4	1,2
	Total	<b>60</b>		



### Learning Assessment

Bloom’s Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	60%		60%		40%		40%		50%	
	Understand										
Level 2	Apply	40%		40%		60%		60%		50%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### Readings

Textbooks:

1. S.P. Gupta "Statistical Methods", Sultan Chand and Sons, Educational Publishers, New Delhi, 46<sup>th</sup> Revised Edition, 2021.
2. D.R. Agarwal "Elementary Mathematics and Statistics for Economists", Vrinda Publications (P), New Delhi, Reprint: 2002.

### Recommended Resources

1. Enter Data

### Other Resources

1. Enter Data

### Course Designers

1. Enter Data

### Economics of Innovation

Course Code	ECO 242	Course Category	Core Course (CC)		L	T	P	C
					3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- Obtaining up to date knowledge on Science, Technology, and Innovation Studies
- Understanding the agenda of Economics of Innovation, as well as contemporary views on the interrelations between technological change and economic development.
- Using quality academic texts to develop and support argumentation.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Knowledge of the contemporary multifactor perspective on innovation	2	70%	65%
<b>Outcome 2</b>	Knowledge of the core macroeconomic dimensions of innovation and its link with economic development	2	70%	65%
<b>Outcome 3</b>	Knowledge of the theoretical underpinning of innovation policymaking.	2	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Engineering Knowledge	Problem Analysis	Design and Development	Analysis, Design and	Modern Tool and ICT Usage	Society and Multicultural	Environment and	Moral, and Ethical	Individual and Teamwork	Communication Skills	Project Management	Self-Directed and Lifelong	PSO 1	PSO 2	PSO 3
<b>Outcome 1</b>	3	3	2	2	1				2	2	1	2	3	3	2
<b>Outcome 2</b>	3	3	2	2	1				2	2	1	2	3	3	2
<b>Outcome 3</b>	3	3	2	2	2				2	2	1	2	3	3	2
<b>Average</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>				<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>

### Course Unitization Plan

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit I</b>	<b>Introduction</b>	<b>10</b>	1	
1	Science, technology and innovation in the economic analysis	4	1	1, 2
2	Technology upgrading and economic catch-up / Middle income trap	3	1	1,2
3	Nature of innovation	3	1	1,2
4	International innovation	5	1	1, 2
<b>Unit II</b>	<b>Innovation and development</b>	<b>15</b>		
5	Innovation and the agenda of development studies	2	2	1, 3
6	Agents and process of innovation	4	2	1, 3
7	Genesis of innovation concept	4	2	1, 3
8	Innovation and Intellectual property rights	3	2	1, 3
<b>UNIT III</b>	<b>Innovation and market characteristics</b>	<b>10</b>		
9	Innovation, firm and market characteristics	5	2,3	1, 2
10	R&D organisations and universities in the innovation process	5	2,3	
11	Linkages, collaborative networks and open innovation	5	2,3	1, 2
<b>UNIT IV</b>	<b>Measurement of innovation</b>	<b>10</b>		
12	Measuring economic effects of R&D and innovation	5	4	2, 3
13	Dissemination of innovations	5	4	2, 3
14	Innovation, economic growth, economic convergence	5	4	2, 3
<b>Total Learning hours</b>		<b>45</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (15%)		Mid-1 (15%)		CLA-2 (10%)		CLA-3 (10%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	40%		90%		40%		80%		70%	
	Understand										
Level 2	Apply	60%		10%		60%		20%		30%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### Recommended Resources

1. Fagerberg, J. The Oxford Handbook of Innovation Publisher: Oxford University Press, 2006.
2. Rosenberg, N., & Hall, B. H. (2010). Handbook of the Economics of Innovation (Vol. 1st ed). Amsterdam: North Holland.
3. 3. Greenhalgh, C., & Rogers, M. (2010). Innovation, Intellectual Property, and Economic Growth. Princeton, N.J.: Princeton University Press.

### Other Resources

1. Enter Data

### Course Designers

1. Internal (Institutional) Subject Matter Experts: Dr. J Vineesh Prakash
2. Expert Reviewers : Dr Raja Durai (School of Economics)
3. Prof. Maria Saleth (MIDS, Chennai)





### Introduction to Financial Economics

Course Code	ECO 243	Course Category	OE	L	T	P	C
				3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)			
Course Offering Department	Economics	Professional / Licensing Standards					

#### Course Objectives / Course Learning Rationales (CLRs)

- To introduce students to financial economics
- To strengthen their understanding of the financial sector of the economy

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Understand the basics of financial economics	2	80%	70%
<b>Outcome 2</b>	Evaluate the behaviour of investors under different market conditions.	5	70%	60%
<b>Outcome 3</b>	Understand the basics of money and capital markets	2	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	3	2	2				2	2	3	3	3	3
Outcome 2	3	3	3	3	2	2				2	2	3	2	2	2
Outcome 3	3	2	3	2	2	2				2	2	3	3	3	3
Average	3	3	3	3	2	2				2	2	3	3	3	3

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit 1</b>	<b>INTRODUCTION TO FINANCIAL MARKETS</b>	<b>7</b>		
	What is finance?	1	1	1
	types of financial markets	2	1	1
	financial assets and their types	2	1	1
	returns on assets; types of returns; fixed and random asset returns	2	1	1
<b>Unit 2</b>	<b>INTEREST RATES</b>	<b>9</b>		
	Basic theory of interest	2	1,2	2
	discounting and present value	1	1,2	2
	evaluating interest rates	1	1,2	2
	fixed-income securities; bond prices and yields	2	3	2
	the term structure of interest rates; yield curves	2	3	2
	spot rates and forward rates	1	3	2
<b>Unit 3</b>	<b>ANALYSIS OF RETURNS ON ASSETS</b>	<b>12</b>		
	Risk-free returns	1	2	2
	portfolios of assets	1	2	2
	portfolio mean and variance; feasible combinations of mean and variance	5	2	2
	mean-variance portfolio analysis: The Markowitz model; two-fund theorem.	5	2	2
<b>Unit 4</b>	<b>CAPITAL ASSET PRICING MODEL</b>	<b>9</b>		
	The capital market line	1	2	2
	the capital asset pricing model; the beta of an asset and of a portfolio	3	1,2	2
	security market line	3	1,2	2
	applications of CAPM.	2	1,2	2
<b>Unit 5</b>	<b>THE DERIVATIVE MARKET</b>	<b>9</b>		
	Introduction to derivatives and options;	2	3	3
	forward and futures contracts; forward and future prices	1	3	3
	types of futures; expiration of forward and futures	1	3	3
	hedging; option markets; call and put options	2	3	3
	Swaps	2	3	3
	introduction to pricing of options – Black-Scholes-Merton formula.	1	3	3
<b>Total Learning hours</b>		<b>45</b>		

### **Learning Assessment**

<b>Bloom's Level of Cognitive Task</b>		<b>Continuous Learning Assessments (50%)</b>				<b>End Semester Exam (50%)</b>
		<b>CLA-1 (10%)</b>	<b>Mid-1 (15%)</b>	<b>CLA-2 (10%)</b>	<b>Mid-2 (15%)</b>	
Level 1	Remember	70%	50%	50%	50%	50%
	Understand					
Level 2	Apply					
	Analyse					
Level 3	Evaluate	30%	50%	50%	50%	50%
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### **Recommended Resources**

1. F. S. Mishkin and S. G. Eakins, Financial Markets and Institutions, Pearson Education, 6th edition, 2009
2. David G. Luenberger, Investment Science, Oxford University Press, USA, 1997.
3. John C. Hull, Options, Futures and Other Derivatives, Pearson Education, 6th edition, 2005

### **Other Resources**

1. Enter Data

### **Course Designers**

1. Dr. Kamal Sai Sadharma Erra, Assistant Professor, Department of Economics, School of Liberal Arts and Social Sciences



### Fundamentals of Time-Series

Course Code	ECO 244	Course Category	Open Elective (OE)		L	T	P	C
					3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To understand fundamental concepts of time-series models with practical applications.
- To introduce the basics of Cointegration and Error-Correction Models.
- To introduce the basics of Box–Jenkins (BJ) Methodology.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Apply various Time-series models.	2	70%	65%
<b>Outcome 2</b>	Apply various Cointegration and Error-Correction Models.	2	70%	65%
<b>Outcome 3</b>	Gain working knowledge of Box–Jenkins (BJ) Methodology.	2	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Engineering Knowledge	Problem Analysis	Design and Development	Analysis, Design and Research	Modern Tool and ICT Usage	Society and Multicultural Skills	Environment and Sustainability	Moral, and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Project Management and Finance	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
<b>Outcome 1</b>	3	3	2	2	1				2	2	1	2	3	3	2
<b>Outcome 2</b>	3	3	2	2	1				2	2	1	2	3	3	2
<b>Outcome 3</b>	3	3	2	2	2				2	2	1	2	3	3	2
<b>Average</b>	3	3	2	2	2				2	2	1	2	3	3	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit 1</b>	<b>Introduction</b>	<b>12 hrs</b>		
1	Components of Time series	03	01	01,02
2	Determination and Elimination of Trends	03	01	01,02
3	Measurement of Seasonality	03	01,03	01,02
4	Cyclical and Random Components	03	01,03	01,02
<b>Unit II</b>	<b>Stationary Time-series Models</b>	<b>15 hrs</b>		
5	Stationarity	02	02	01, 02
6	Autocorrelation Function	02	02	01, 02
7	Partial Autocorrelation Function	02	02	01, 02
8	Test of Stationarity	03	02,03	01, 02
9	AR, MA, and ARIMA Modelling of Time Series Data	03	02,03	01, 02
10	The Box–Jenkins (BJ) Methodology	03	02.03	
<b>Unit III</b>	<b>Cointegration and Error-Correction Models</b>	<b>18 hrs</b>		
11	Linear Combination of Integrated Variables	03	01,03	01, 02
12	Cointegration and Common Trends	04	01,03	01, 02
13	Testing of Cointegration: The Engle Granger Methodology	03	01,03	01, 02
14	Johansen Methodology	04	01,03	01, 02
15	Error-Correction and ADL Tests	04	01,03	01, 02
<b>Total Learning hours</b>		<b>45 hrs</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (15%)		Mid-1 (15%)		CLA-2 (10%)		CLA-3 (10%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	40%		90%		40%		80%		70%	
	Understand										
Level 2	Apply	60%		10%		60%		20%		30%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### Recommended Resources

1. Gujarati, D.N. (2004) Basic Econometrics. 4th Edition, McGraw-Hill Companies.
2. Enders, W. (2014) Applied Econometric Time Series. 4th Edition. John Wiley, New York

### Other Resources

1. Enter Data

### Course Designers

1. Internal (Institutional) Subject Matter Experts: Dr. J Vineesh Prakash
2. Expert Reviewers : Dr Raja Durai (School of Economics)
3. Prof. Maria Saleth (MIDS, Chennai)

### Central Banks and Monetary Policy

Course Code	ECO 245	Course Category	Core Elective		L	T	P	C
					3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To introduce students to Central Banks and their functions.
- To highlight the importance of Monetary Policy and study in detail.
- To study and examine the interconnection between Central Banks, Monetary Policy and Financial Markets

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	To state and explain the importance of Central Banks, their functions, and the tools	2	70	70
<b>Outcome 2</b>	To study and explain Monetary Policy in detail, evaluate the current Monetary Policy, and application of Monetary policies to problems	4	70	70
<b>Outcome 3</b>	To analyse the relation between Central banks, Monetary Policy and Financial Markets	3	70	70
<b>Outcome 4</b>	Application of appropriate policy to hypothetical situations/problems	3	70	70

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3											3			
Outcome 2	3											3			
Outcome 3	3	3	3									3	3	3	3
Outcome 4	3	3	3	2	2							3	3	3	3
Cover Average	3	3	3	2	2							3	3	3	3

**Course Unitization Plan**

<b>Unit No.</b>	<b>Unit Name</b>	<b>Required Learning hours</b>	<b>CLOs Addressed</b>	<b>References Used</b>
<b>Unit 1</b>	<b>UNIT I: Introduction to Monetary Policy</b>	<b>12</b>		
	Introduction to money and the financial system	4	1,2	1
	The role of money in the economy	4	1,2	1
	The role of Central Banks, structure of Central Banks, Central Bank balance sheet	4	1,2	1,2
<b>Unit 2</b>	<b>UNIT II: Conducting Monetary Policy</b>	<b>16</b>		
	The monetary base and money supply, the money multiplier, Monetary policy objectives	4	1,2	1,2,3
	Quantity theory of money, demand for money	4	1,2	1,2
	Output and inflation in the long run	4	1,2,3	1
	Aggregate demand, aggregate supply, and monetary policy	4	1,2,3	1
<b>Unit 3</b>	<b>UNIT III: Exchange rate and Monetary Policy Transmission</b>	<b>12</b>		
	Exchange rate management by the Central Bank, exchange rate regimes: fixed, flexible, managed, the costs, benefits, and risks of fixed exchange rates	6	1,2,3	1
	Sources of fluctuations in output and inflation, monetary policy transmission mechanism	6	1,2,3,4	1,2
<b>Unit 4</b>	<b>UNIT IV: Challenges of Monetary Policy and Unconventional Monetary Policy</b>	<b>5</b>		
	Challenges of conducting monetary policy, influence of the 2008 crisis on monetary policy	2	3,4	1
	Introduction to unconventional monetary policy	3	3,4	1
<b>Total Learning hours</b>		<b>45</b>		

### **Learning Assessment**

<b>Bloom's Level of Cognitive Task</b>		<b>Continuous Learning Assessments (50%)</b>				<b>End Semester Exam (50%)</b>
		<b>CLA-1 (10%)</b>	<b>Mid-1 (15%)</b>	<b>CLA-2 (10%)</b>	<b>Mid-2 (15%)</b>	
Level 1	Remember	75	75	70	70	70
	Understand					
Level 2	Apply	25	25	30	30	30
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### **Recommended Resources**

1. Cecchetti, S. and Schoenholtz (2017) "Money, Banking and Financial Markets", McGraw-Hill Education International Edition, Fifth Edition
2. Ritter, L., W. Silber, and G. Udell (2014). Principles of Money, Banking, and Financial Markets. 12th edition, Pearson, New York, 2014
3. Svensson, L.E.O. (1999). "Inflation targeting as a monetary policy rule," Journal of Monetary Economics, Elsevier, vol. 43(3), pages 607-654, June.

### **Other Resources**

1. Enter Data

### **Course Designers**

1. Enter Data

### Evolution of Money and Banking

Course Code	ECO 246	Course Category	Core Course (CC)		L	T	P	C
					3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To introduce concepts in money and banking.
- Exposes students to the theory and functioning of the monetary and financial sectors.
- It discuss the interest rate concepts as well.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Discuss the economic principles underlying the working of financial institutions.	2	70%	70%
<b>Outcome 2</b>	Describe the working of central banks conducting monetary policy.	1	70%	70%
<b>Outcome 3</b>	Apply models on monetary and macroeconomic problems.	3	70%	70%
<b>Outcome 4</b>	Conduct a theoretical analysis of given baking problems.	2	70%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	2	3	2	3	1			2		2	3	2	2	3
Outcome 2	3	2	1	2	3	1			2		2	3	2	3	1
Outcome 3	3	2	3	2	3	1			2		2	3	2	3	3
Outcome 4	3	2	1	2	3	1			2		2	3	2	1	1
Course Average	3	2	2	2	3	1			2		2	3	2	2	2

**Course Unitization Plan**

<b>Unit No.</b>	<b>Unit Name</b>	<b>Required Learning hours</b>	<b>CLOs Addressed</b>	<b>References Used</b>
<b>Unit I</b>	<b>Money</b>	<b>15</b>		
	Introduction	2	1	1
	Theoretical and empirical approaches to money definition	2	1	1
	Functions	3	1	1
	Different Approaches	4	1	1
	Measurements	2	1	1
	Theories of money supply determination	2	1	1
<b>Unit II</b>	<b>Money Financial Institutions, Markets, Instruments and Financial Innovations</b>	<b>15</b>		
	Role of financial markets and institutions	3	1	1
	The problem of asymmetric information	2	1	1
	Adverse selection and moral hazard financial crises	3	1	1
	Money and capital markets	2	1	1
	organization, structure, and reforms in India,	2	1	1
	financial derivatives, and other innovations	3	1	1
<b>Unit III</b>	<b>Banking System and Central Banking and Monetary Policy</b>	<b>15</b>		
	Balance sheet and portfolio management	1	4	1,2
	Indian banking system: Changing role and structure; banking sector reforms	4	4	1,2
	Functions	2	4	1,2
	Balance sheet; goals, targets, indicators, and instruments of monetary control	4	4	1,2
	Monetary management in an open economy;	2	4	1,2
	current monetary policy of India.	2	4	1,2



### Learning Assessment

Bloom’s Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	40%		60%		40%		60%		40%	
	Understand										
Level 2	Apply	60%		40%		60%		40%		60%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### Recommended Resources

1. Mishkin Frederick S (2015), The Economics of Money, Banking and Financial Markets
2. L. M. Bhole and J. Mahukud, Financial Institutions and Markets, Tata McGraw Hill, 5th edition, 2011

### Other Resources

1. R.B.I. Bulletin, Annual Report and Report on Currency and Finance (latest).

### Course Designers

1. Dr Kamal Sai Sadharma Erra, Assistant Professor, Department of Economics, SRM University- AP.

### Environmental Economics

Course Code	ECO 247	Course Category	Core		L	T	P	C
					3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)	Departmental Elective	Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To understand the economic perspectives on the challenging environmental issues.
- To understand human economy and environmental linkages.
- To understand the public goods, externalities, and market failure.
- To examine environmental policy measures and introduction to environmental valuation.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	To state and explain the economic perspectives on the challenging environmental issues, linkages, policy measures	2	70	70
<b>Outcome 2</b>	To apply the economic perspectives to real life situations	3	60	60
<b>Outcome 3</b>	To identify and analyse real-life examples as externalities and market failure	4	60	60
<b>Outcome 4</b>	To solve for environmental valuation	3	70	70

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3						3	1					1		
Outcome 2	3	3	3			1	3	1	2			2	3		3
Outcome 3	3	3	3			1	3	1	2			2	3		3
Outcome 4	3	3					3						2		
Course Average	3	3	3			1	3	1	2			2	2		3

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>UNIT I</b>	<b>Introduction</b>	<b>4</b>		
	Nature and scope, overview of environmental issues, concept of ecological economics	2	1	1,4
	human economy and environmental linkages, national income and environmental accounting, economic perspectives on the environment	2	1	1,4
<b>UNIT II</b>	<b>Public goods and Externalities</b>	<b>9</b>		
	Environmental externalities, market inefficiencies	3	1	1,4
	resource allocation, common property, tragedy of commons and public goods,	3	1	1
	Intertemporal allocation, good vs bad and introducing property rights issue	3	1	1
<b>UNIT III</b>	<b>Environmental Policy and Valuation</b>	<b>20</b>		
	Theory of environmental policy, Cost benefit analysis, environmental valuation methods	4	1,3	1,2
	Stated preference, revealed preference and production function approach	4	1,2	1,2
	Environmental regulation, Command and Control versus Economic instruments,	4	1,2	1,2
	Coase theorem, Pigouvian tax	4	1,2	1,2
	Global managing of renewable energy resources, energy and environment interaction, trade, and environmental valuation.	4	1,3	2,3
<b>UNIT IV</b>	<b>Sustainable Development and Global climate change</b>	<b>12</b>		
	Introduction to SDGs, Weak vs Strong sustainability	3	1,4	2
	Economics of global climate change, sustainable development metrics	3	1,4	2
	Environmental laws and institutions	2	4	1
	Environment and its impact on biosphere	2	4	1
	Environmental institutions, and gross root movements	2	4	1
<b>Total Learning hours</b>		<b>45</b>		

### **Learning Assessment**

<b>Bloom's Level of Cognitive Task</b>		<b>Continuous Learning Assessments (50%)</b>				<b>End Semester Exam (50%)</b>
		<b>CLA-1 (10%)</b>	<b>Mid-1 (15%)</b>	<b>CLA-2 (10%)</b>	<b>CLA-3 (15%)</b>	
Level 1	Remember	80%	70%	70%	60%	60%
	Understand					
Level 2	Apply	20%	30%	30%	40%	40%
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### **Recommended Resources**

1. Charles Kolstad, Intermediate Environmental Economics, Oxford University Press, 2nd edition, 2010.
2. A course in environmental economics: Theory, policy and practice, Phaneuf and Requate, Cambridge University Press
3. Environmental Economics: An Introduction, Barry C. Field and Martha K. Field, McGraw Hill
4. Robert N. Stavins (ed.), Economics of the Environment: Selected Readings, W.W. Norton, 5th edition, 2005

### **Other Readings**

1. Roger Perman, Yue Ma, James McGilvray and Michael Common, Natural Resource and Environmental Economics, Pearson Education/Addison Wesley, 3rd edition, 2003.
2. Maureen L. Cropper and Wallace E. Oates, 1992, —Environmental Economics: A Survey,|| Journal of Economic Literature, Volume 30:675-740.

### **Other Resources**

1. Enter Data

### **Course Designers**

1. Enter Data

### Contemporary Economic Issues

Course Code	ECO 248	Course Category	Core Course (CC)		L	T	P	C
					3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To enhance students' analytical skills to interpret and analyze the Economic Survey and Union Budget effectively
- To provide a comprehensive understanding of fiscal concepts, including deficits, receipts, and taxation, emphasizing the impact on the economy
- To enable students to apply insights from the Economic Survey to analyze current and past policy emphasis in the Indian economic context

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Interpret and analyse the Economic Survey and Union Budget, demonstrating a refined ability to extract relevant information	4	80%	70%
<b>Outcome 2</b>	Apply fiscal concepts, such as deficits, receipts, and taxation, to assess their impact on the economy, fostering a practical understanding	3	80%	70%
<b>Outcome 3</b>	Apply insights from the Economic Survey to critically analyse and understand current and past policy emphasis, particularly in the context of fiscal and revenue deficits	3	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Engineering Knowledge	Problem Analysis	Design and Development	Analysis, Design and Research	Modern Tool and ICT Usage	Society and Multicultural Skills	Environment and Sustainability	Moral and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Project Management and Finance	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
<b>Outcome 1</b>	3	3	2	2	1				2	2	1	2	3	3	2
<b>Outcome 2</b>	3	3	2	2	2				2	2	1	2	3	3	2
<b>Outcome 3</b>	3	3	2	2	2				2	2	1	2	3	3	2
<b>Course Average</b>	3	3	2	2	2				2	2	1	2	3	3	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit 1</b>		<b>13 hrs</b>		
1	Concepts- Fiscal policy, areas of government spending in India	02	01	03, 02
2	Capital and revenue expenditure, plan and non-plan expenditures	02	01	03, 02
3	Deficits (fiscal, primary, revenue), impact of fiscal deficits on the economy	02	01	03, 02
4	Capital receipts, revenue receipts, tax and non-tax revenue	02	01	03,02
5	Direct and indirect taxes	02	01	03, 02
6	Need for rationalization of tax structure	02	01	03, 02
7	Goods and Services Tax (GST)	01	01	03,02
<b>Unit 2</b>		<b>8 hrs</b>		
8	The Economic survey	02	02	02, 05
9	Analysis of current and past policy emphasis	06	02	02, 05
<b>Unit 3</b>		<b>12 hrs</b>		
10	The union Budget-Need for the budget	02	03	02, 07
11	Understanding the process of budget making in India	02	03	02, 07
12	Analysis of fiscal and revenue Deficits	02	03	02, 07
13	Analysis of sources of revenue and expected growth in revenue	02	03	02, 07
14	Tax simplification, improvement in administration	02	03	02, 07
15	Expansion of tax net and other measures to improve revenue receipts	02		
<b>Unit 4</b>		<b>12 hrs</b>		
16	Current Issues in the Economy	03	03	02,05
17	Contemporary Issues in Different sectors	03	03	02,05
18	Agriculture, Manufacturing and Service Sector	03	03	02, 05
19	Monetary Issues	03	03	02, 05
<b>Total Learning hours</b>		<b>45 hrs</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (60%)				End Semester Assessments (40%)
		CLA-1 (15%)	Mid-1 (15%)	CLA-2 (15%)	CLA-3 (15%)	
Level 1	Remember	40%	40%	40%	40%	40%
	Understand					
Level 2	Apply	60%	60%	60%	60%	60%
	Analyse					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

### Recommended Resources

1. Centre for Budget and Governance Accountability. Recent reports.
2. Chakraborty, P. (2015). Intergovernmental fiscal transfers in India: Emerging trends and realities. In P. Patnaik (ed.): Macroeconomics. Oxford University Press.
3. Dasgupta, D., De, S. (2012). Fiscal deficit. In The new Oxford companion to economics in India. Oxford University Press.
4. Kapila, U. (2016). Fiscal and budgetary developments in Indian economy since independence. Academic Foundation.
5. Ministry of Finance. Economic survey (latest).
6. Ministry of Finance. Finance Commission report (latest).
7. Ministry of Finance. Union Budget

### Other Resources

1. Enter Data

### Course Designers

1. Internal (Institutional) Subject Matter Experts: Dr Manish Kumar
2. Expert Reviewers: Dr Raja Durai (School of Economics)
3. Pro. f. Maria Saleth (MIDS, Chennai)

### The Art and Science of Economic Policy

Course Code	ECO 249	Course Category					L	T	P	C
			3	0	0	3				
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)						
Course Offering Department	Economics	Professional / Licensing Standards								

#### Course Objectives / Course Learning Rationales (CLRs)

- To understand the fundamental principles and concepts of economic policy.
- To analyze the role of economic policy in shaping the macroeconomic environment.
- To evaluate the impact of economic policies on various sectors of the economy.
- To develop critical thinking skills in assessing the effectiveness of economic policies.
- To apply theoretical frameworks to real-world economic policy issues

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Demonstrate a comprehensive understanding of the fundamental principles and concepts of economic policy.	2	80%	70
<b>Outcome 2</b>	Analyze and evaluate the impact of macroeconomic policies on the overall economic environment.	2	80%	70%
<b>Outcome 3</b>	Examine the tools and implementation of monetary and fiscal policies and assess their effectiveness in achieving economic goals.	2	80%	70%
<b>Outcome 4</b>	Evaluate the role of exchange rate policies and their implications on international trade and economic stability.	2	80%	70
<b>Outcome 5</b>	Critically assess the impact of industrial, agricultural, and trade policies on specific sectors of the economy.	2	80%	70

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	2	1							2	3	1	2
Outcome 2	3	3	2	3	3	1			2			2	2	2	2
Outcome 3	3	3	3	3	2				2			3	3	1	3
Outcome 4	2	3	3	3	2	1			3			2	2	2	2
Outcome 5	2	2	2	2	2				2			2	2	1	2
Average	3	3	3	3	2	1			2			2	2	2	2



**Course Unitization Plan**

Unit No.		Required Learning hours	CLOs Addressed	References
<b>Unit I</b>	<b>Introduction to Economic Policy</b>	<b>08</b>		
1	Definition and scope of economic policy	2	1,2	1
2	Historical evolution of economic policy	2	1,2	1
3	Objectives and goals of economic policy	2	1,2	1
4	Role of government in economic policy	2	1,2	1
<b>Unit II</b>	<b>Macroeconomic Policy</b>	<b>10</b>		
5	Monetary policy: objectives, tools, and implementation	4	2	3,4,5,6
6	Fiscal policy: theories and practices, Exchange rate policy and its implications	3	2	3,4,5,6
7	Inflation targeting and its challenges	3	2	3,4,5,6
<b>UNIT III</b>	<b>Sectoral Policies</b>	<b>08</b>		
08	Industrial policy and its impact	2	1, 3	12,13,14
09	Agricultural policy and rural development	2	1, 3	09,10,11
10	Trade policy and globalization	2	1, 3	7,8
11	Environmental and sustainable development policies	2	1, 3	2
<b>UNIT IV</b>	<b>Social and Welfare Policies</b>	<b>10</b>		
12	Education and health policies	2	4	1,2,3
13	Poverty alleviation programs	3	4	1,2,3
14	Social security and inclusive growth	3	4	1,2,3
15	Gender-sensitive economic policies	2	4	1,2,3
<b>Unit V</b>	<b>Evaluation of Economic Policies</b>	<b>09</b>		
17	Criteria for evaluating economic policies	3	5	1,2,3
18	Case studies on successful and unsuccessful policies	3	5	1,2,3
19	Policy challenges and lessons learned	3	5	1,2,3
	<b>Total</b>	<b>45</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	60%		60%		40%		40%		50%	
	Understand										
Level 2	Apply	40%		40%		60%		60%		50%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### TEXTBOOKS/REFERENCE

1. Mankiw, N. G. (2015). Principles of Economics.
2. Stiglitz, J. E., & Walsh, C. E. (2016). Economics (4th ed.).
3. Dornbusch, R., Fischer, S., & Startz, R. (2011). Macroeconomics.
4. Arvind Subramanian and Josh Felman (2021) India's Stalled Rise-How the State Has Stifled Growth, published in foreign affairs on 14.12. 2021
5. Chatterjee, Shoumitro, and Arvind Subramanian. India's inward (re) turn: Is it Warranted? Will it Work? Ashoka Center for Economic Policy, Policy Paper 01 (2020).
6. Mohan, Rakesh, and Partha Ray. Indian financial sector: Structure, trends and turns. International Monetary Fund, 2017.
7. Trade Policy Review (prepared by secretariat/ govt, WTO 2020) chapter 2: Trade and Investment Regimes.
8. Harsh vardhan Singh – Trade Policy Reforms since 1991, working paper 02, Brookings India., (excluding annexures starting from pg. 47 & onwards).
9. Dev, M. (2018) Transformation of Indian Agriculture? Growth, Inclusiveness and Sustainability. Working paper 2018-026, Indira Gandhi Institute of Development Research, Mumbai.
10. Ramesh Chand, Raka Saxena, Simmi Rana (2015) Estimates and Analysis of Farm Income in India, 1983–84 to 2011–12, Economic & Political Weekly May 30, 2015, Vol. I No 22
11. Acharya, S., & Mehrotra, S. (2020). The Agricultural Market Reforms: Is there a trade-off between efficiency and equality? working paper series, Institute of human development.
12. Nagaraj, R. (2017). Economic Reforms and Manufacturing Sector Growth. Economic and Political Weekly.
13. Chakraborty J. Nagaraj, R. (2020). Has India Deindustrialised Prematurely? A Disaggregated Analysis. Economic and Political Weekly.
14. Mukherjee, Deeparghya (2021) Is India Moving Up the Global Value Chain? A Sectoral Study of Indian Exports. Economic and Political Weekly, 56(20), 12-15.

### Recommended Resources

1. Enter Data

### Other Resources

1. Enter Data

### Course Designers

1. Enter Data

### Entrepreneurship in Emerging Economies

Course Code	ECO 250	Course Category				
			L	T	P	C
			3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)		
Course Offering Department	Economics	Professional / Licensing Standards				

#### Course Objectives / Course Learning Rationales (CLRs)

- Impart the essential lessons in entrepreneurship relevant for twenty-first century and emerging economies.
- Understand the context and importance of emerging economies and role of entrepreneurship in these economies.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Understanding of the world economy in general and emerging economy in particular	3	80%	70%
<b>Outcome 2</b>	Importance of entrepreneurship in modern economy	3	80%	70%
<b>Outcome 3</b>	Entrepreneurship in action, concepts, and examples	2	80%	70%
<b>Outcome 4</b>	Relevance of entrepreneurship tailor made for emerging economies	3	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Engineering Knowledge	Problem Analysis	Design and Development	Analysis, Design and Research	Modern Tool and ICT Usage	Society and Multicultural Skills	Environment and Sustainability	Moral, and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Project Management and Finance	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
<b>Outcome 1</b>	3	3	2	2	1				2	2	1	2	3	3	2
<b>Outcome 2</b>	3	3	2	2	1				2	2	1	2	3	3	2
<b>Outcome 3</b>	3	3	2	2	2				2	2	1	2	3	3	2
<b>Outcome 4</b>	3	3	2	2	2				2	2	1	2	3	3	2
<b>Course Average</b>	3	3	2	2	2				2	2	1	2	3	3	2

**Course Unitization Plan**

<b>Unit No.</b>	<b>Unit Name</b>	<b>Required Learning hours</b>	<b>CLOs Addressed</b>	<b>References</b>
<b>Unit 1</b>	<b>Introduction</b>	<b>08 hrs</b>		
1	World of entrepreneurs	02	01	01, 02, 03
2	Working definition of entrepreneurship	02	01	01, 02, 03
3	What makes entrepreneurs so important and valuable?	02	01	01, 02, 03
4	Entrepreneurship in the emerging economies	02	01	01, 02, 03
<b>Unit 2</b>	<b>Opportunities, Mindset, and Idea Generation</b>	<b>12 hrs</b>		
5	Recognizing and shaping opportunities	03	01	01, 02, 03
6	The Timmons Model	03	01	01, 02, 03
7	Entrepreneurial Mindset	02	01	01, 02, 03
8	Overcoming Fear and dilemmas	02	01	01, 02, 03
9	Brainstorming Ideas	02	01	01, 02, 03
<b>Unit 3</b>	<b>Validation and Lean Startup</b>	<b>15 hrs</b>		
10	Validating ideas	02	02	01, 02, 03
11	Bootstrapping	04	02	01, 02, 03
12	Tips and lessons from entrepreneurs	05	02	01, 02, 03
13	Case studies	04	02	01, 02, 03
<b>Unit 4</b>	<b>Environment and effectuation</b>	<b>10 hrs</b>		
14	Business environment in emerging economies	02	03	01, 02, 03
15	Supply and demand situation	02	03	01, 02, 03
16	Business plan	03	03	01, 02, 03
17	Effectuation	03	03	01, 02, 03
<b>Total Learning hours</b>		<b>45 hrs</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (60%)				End Semester Assessments (40%)
		CLA-1 (15%)	Mid-1 (15%)	CLA-2 (15%)	CLA-3 (15%)	
Level 1	Remember	40%	40%	40%	40%	40%
	Understand					
Level 2	Apply	60%	60%	60%	60%	60%
	Analyse					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

### Learning Assessment (Macro) - Theory

Question Difficulty	Bloom's Level of Cognitive Task	Continuous Learning Assessments (50%)			End Semester Exam (50%)
		Experiments (20%)	Record / Observation Note (10%)	Viva + Model (20%)	
Level 1	Remember				
	Understand				
Level 2	Apply				
	Analyse				
Level 3	Evaluate				
	Create				
Total		100%	100%	100%	100%

### Recommended Resources

1. Timmons, J. A. (2010), New Venture Craetion: Entrepreneurship for 21st Century, McGraw Hill.
2. 2. Cohen, D. and Feld, B. (2019). Do More Faster, Wiley.
3. 3. Thiel, P. (2014), Zero to One, Crown Business

### Other Resources

1. Enter Data

### Course Designers

1. Internal (Institutional) Subject Matter Experts: Dr. Manish Kumar
2. Expert Reviewers from Institutes of National Importance / Institutes of International Repute
3. Dr. Raja Durai, School of Economics
4. Prof J Maria Saleth, MIDS, Chennai

### UNDERSTANDING OF MARKETS AND ECONOMY

<b>Course Code</b>	ECO 251	<b>Course Category</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
				3	0	0	3
<b>Pre-Requisite Course(s)</b>		<b>Co-Requisite Course(s)</b>		<b>Progressive Course(s)</b>			
<b>Course Offering Department</b>	Economics	<b>Professional / Licensing Standards</b>					

#### Course Objectives / Course Learning Rationales (CLRs)

1. To educate students on the fundamental concepts of an economy.
2. The aim is to introduce the concept of individual decision making and consumer behaviour.
3. To understand the organization of an economy.
4. What is the value of the agricultural sector to the Indian economy?
5. To acquire knowledge of the fundamental principles of money and banking in India.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	<b>At the end of the course the learner will be able to</b>	<b>Bloom's Level</b>	<b>Expected Proficiency Percentage</b>	<b>Expected Attainment Percentage</b>
<b>Outcome 1</b>	Analyze real-life situations by thinking rationally and demonstrating how economic concepts can be applied.	2	80%	70%
<b>Outcome 2</b>	In the given situation, students will be able to comprehend how consumers maximize their satisfaction.	2	80%	70%
<b>Outcome 3</b>	It will help to understand the categories of all activities in three sectors of the economy and their importance.	3	80%	70%
<b>Outcome 4</b>	Familiarize students with the functioning of money and the functioning of the banking sectors in an economy.	2	80%	70

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	2	1							2	3	1	2
Outcome 2	3	3	3	3	3	1			2			2	3	2	2
Outcome 3	3	3	3	3	2				2			3	3	1	3
Outcome 4	3	3	3	3	2	1			3			2	3	2	2
Outcome 5	3	2	3	3	2				2			2	3	1	3
Average	3	3	3	3	2	1			2			2	3	2	2

**Course Unitization Plan**

Unit No.		Required Learning hours	CLOs Addressed	References
<b>Unit I</b>	<b>Introduction</b>	<b>10</b>		
1	Introduction to Economics	2	1,2	1
2	Central Problem of Economics	3	1,2	1
3	Trade-off, Opportunity Cost	3	1,2	1
4	Circular Flow of Income	2	1,2	1
<b>Unit II</b>	<b>Market</b>	<b>08</b>		
5	Households, Corporates and Government	2	2	1
6	Law of Demand	2	2	1
7	Law of Supply	2	2	1
8	Market Equilibrium	2	2	1
<b>UNIT III</b>	<b>Economy</b>	<b>10</b>		
09	Composition of an economy	2	1, 3	4,5
10	Five years planning	1	1, 3	4,5
11	Economic reforms	1	1, 3	4,5
12	Public sector and disinvestment	2	1, 3	4,5
13	Labour reforms	2	1, 3	4,5
14	Industrial Sickness and Remedial Measures	2	1, 3	4,5
<b>UNIT IV</b>	<b>Agrarian Economy</b>	<b>11</b>		
15	Nature and Characteristics	1	4	4,5
16	Cropping Patterns	1	4	4,5
17	Inputs and Output	1	4	4,5
18	Land Reforms	1	4	4,5
19	Green Revolution	1	4	4,5
20	Agricultural Investment	1	4	4,5
21	Agricultural Prices and Subsidies	1	4	4,5
22	Food Security in India	1	4	4,5
23	Agricultural Labour	1	4	4,5
24	WTO and Indian	1	4	4,5
25	Recent Agricultural Policies	1	4	4,5
<b>Unit V</b>	<b>Money and Banking</b>	<b>6</b>		
26	Indian Banking Sector and Inflation	2	5	4,5
27	Commercial Banking in India	1	5	4,5
28	Reserve Bank of India	1	5	4,5
29	Money and capital market	1	5	4,5
30	Price trends in India	1	5	4,5
	<b>Total Learning Hours</b>	<b>45</b>		

### **Learning Assessment**

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	60%		60%		40%		40%		50%	
	Understand										
Level 2	Apply	40%		40%		60%		60%		50%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### **TEXTBOOKS/REFERENCE**

1. N. Gregory Mankiw (2015), Principles of Economics, 7th Edition, Cengage Learning India.
2. Karl E. Case, Ray C. Fair and E. Oster Sharon (2017), Principles of Economics, 12th Edition, Pearson Education.
3. Robert S. Pindyk and D.L. Rubinfeld, (2017), Microeconomics, 8th Edition, Pearson Education.
4. V.K Puri and S.K Misra (2022), Indian Economy, 39th Revised Edition, Himalaya Publishing House.
5. Ramesh Singh (2022), Indian Economy, 14th Edition, McGraw Hill India.

### **Recommended Resources**

### **Other Resources**

### **Course Designers**



### Economic Development of India

Course Code	ECO 252	Course Category				
			L	T	P	C
			3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)		
Course Offering Department	Economics	Professional / Licensing Standards				

#### Course Objectives / Course Learning Rationales (CLRs)

1. To educate students about the development process of India.
2. The aim of this course is to analyse significant changes in economic indicators and policy debates in India during the post-Independence period using appropriate analytical frameworks, with an emphasis on paradigm shifts and turning points.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Analyze real-life situations by thinking rationally and demonstrating how economic concepts can be applied.	1	-	-
<b>Outcome 2</b>	In the given situation, students will be able to comprehend how consumers maximize their satisfaction.	2	80%	70%
<b>Outcome 3</b>	It will help to understand the categories of all activities in three sectors of the economy and their importance.	2	80%	70%
<b>Outcome 4</b>	Familiarize students with the functioning of money and the functioning of the banking sectors in an economy.	2	80%	70

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary	Analytical Reasoning and	Critical and Reflective Thinking	Scientific Reasoning and	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3						3	1					1		
Outcome 2	3	3	3			1	3	1	2			2	3		3
Outcome 3	3	3	3			1	3	1	2			2	3		3
Outcome 4	3	3					3						2		
Course Average	3	3	3			1	3	1	2			2	2		3

### Course Unitization Plan

Unit No.		Required Learning hours	CLOs Addressed	References
<b>Unit I</b>	<b>Introduction</b>	<b>9</b>		
1	Economic background of India before independence	3	1	1
2	The journey of India after independence,	3	1	1
3	Success or failure of economic plan or policies	3	2	1
<b>Unit II</b>	<b>Before Liberalization</b>	<b>8</b>		
4	Plan period, focus areas	2	2	2, 3
5	Sectoral performance	1	2	2, 3
6	Economic growth and development indicators	2	2	2, 3
7	Food security	1	2	2, 3
8	Inflation and unemployment,	1	2	2, 3
9	Challenges and lessons	1	2	
<b>UNIT III</b>	<b>After Liberalization</b>	<b>8</b>		
10	Situation leading to liberalization	1	2	2, 3
11	Reform measures	2	2	2, 3
12	Fiscal and monetary policy,	1	2	2, 3
13	Impact on economic growth and development	1	2	2, 3
14	Cost and benefits of liberalization,	1	2	2, 3
15	Infrastructure, institutional changes	1	2	
16	Joining of WTO	1	2	
<b>UNIT IV</b>	<b>India after Global Financial Crisis</b>	<b>20</b>		
17	Major changes in contemporary India and the world	2	1, 2	1,4
18	Policy and reforms	3	1, 2	1,4
19	Structural changes	2	1, 2	1,4
20	Industrial policy,	3	1, 2	1,4
21	Trade openness,	2	1, 2	1,4
22	Poverty and inequality	3	1, 2	1,4
23	Productivity and innovation,	2	1, 2	1,4
24	comparison, and place in global economy.	3	1, 2	1,4
	<b>Total Learning Hours</b>	<b>45</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	60%		60%		40%		40%		50%	
	Understand										
Level 2	Apply	40%		40%		60%		60%		50%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### Recommended Resources

1. Joshi, V. ; Littlr, I., M., D. (1996). India's economic reforms: 1991-2001, Oxford University Press.
2. Rakshit, M. (2011). Macroeconomics of Post Reform India, Oxford University Press.
3. V.K Puri and S.K Misra (2022), Indian Economy, 39 th Revised Edition, Himalaya Publishing House.
4. Ramesh Singh (2022), Indian Economy, 14 th Edition, McGraw Hill India.

### Trade and Globalization

Course Code	ECO 253	Course Category	CC		L	T	P	C
					3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

1. To understand the need and scope of Game Theory.
2. To understand the fundamental concepts underlying static and dynamic games.
3. Application of the concepts of Game Theory to real-life situations.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	To state and explain the basics of trade policy and the economic effects of various trade policy instruments.	2	70	70
<b>Outcome 2</b>	Analyse trade-related issues using economic and trade theoretical models.	4	70	70
<b>Outcome 3</b>	To state and explain the relevance of trade theories to globalisation	2	70	70
<b>Outcome 4</b>	Application of trade and globalisation theories to real-life situations	4	70	70

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design and Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3											2			
Outcome 2	3	3										2	3	3	2
Outcome 3	3											2			2
Outcome 4	3	3							3			2	3	3	
Average	3	3							3			2	3	3	2

### Course Unitization Plan

Unit No	Unit Name	Learning hours	CLO's Addressed	Reference
<b>UNIT I</b>	<b>Trade Theories</b>	<b>16</b>		
	Contemporary trade theories.	4	1	1,2
	Technology, factor abundance, comparative advantage, competitive advantage	4	1	1,2
	Partial and general equilibrium analysis, trade policy, intra-industry trade	4	1,2	1,2
	Foreign direct investments, gravity, international firms and international interactions	4	1,2	1,2
<b>UNIT II</b>	<b>Understanding Globalization</b>	<b>6</b>		
	The concept of 'globalization', Is globalization new?	2	2	2,3
	Historical perspectives and evolution And the dimensions of globalization	4	1	2,3
<b>UNIT III</b>	<b>The Globalization of Trade</b>	<b>12</b>		
	The economic theory of trade integration	2	2,3	2,4
	The distributional consequences of trade: inequality and power	2	2,3,4	2,3,4
	The political consequences of trade: efficiency vs. compensation	2	3,4	3,4
	Trade and development strategies: import substitution vs. export promotion	2	3,4	3,4
<b>UNIT IV</b>	<b>The Globalization of Financial Flows and Development</b>	<b>11</b>		
	The logic of financial globalization: motives for liberalizing	3	3,4	3,4
	The domestic economic consequences of financial integration	2	3,4	3,4
	World development patterns: divergence and convergence	2	3,4	3,4
	The political economy of aid: the donors. Who gives aid and why?	2	4	3,4
	The political economy of aid: the recipients.	2	3,4	3,4
	<b>Total Learning Hours</b>		<b>45</b>	

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	80	70	70	60	60
	Understand					
Level 2	Apply	20	30	30	40	40
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### Recommended Resources

1. Caves, R. E., Frankel, J. A., & Jones, R. W. (1993). World Trade and Payments: An Introduction (ed.).
2. Krugman, P. R. (2018). International trade: Theory and policy. Pearson.
3. Campbell, Patricia J., Aran McKinnon, and Christy R: Stevens. 2010. An Introduction to Global Studies. Wiley-Blackwell.
4. Ritzer, George. 2010. Globalization: A Basic Text. Wiley-Blackwell.

### Other Resources

### Course Designers

### Behavioural Economics

Course Code	ECO 421	Course Category	Departmental Elective		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department		Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To explain the economic decision-making process and role of psychology behind it.
- To elaborate the deviation of the standard economic theoretical predictions from reality, using the framework of behavioural economics.
- To study the theoretical frameworks of Behavioural economics.
- To explain the real-life examples using the Behavioural economics' framework

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	To state and explain the role of psychology in decision-making processes studied in economics	2	80	70
<b>Outcome 2</b>	To state and explain the deviation of the standard economic theoretical frameworks from the reality	2	80	70
<b>Outcome 3</b>	To state and explain the theoretical frameworks of Behavioural Economics	2	70	70
<b>Outcome 4</b>	To apply and analyse the frameworks of Behavioural Economics within the context of real-life situations	4	60	60

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	--	--	--	--	--	--	--	--	--	3	--	--	--
Outcome 2	3	3	--	--	--	--	--	--	--	--	--	3	--	--	--
Outcome 3	3	3	3	3	--	--	--	--	--	--	--	3	--	--	2
Outcome 4	3	3	3	3	3	--	--	--	--	--	--	3	3	2	3
Average	3	3	3	3	3	--	--	--	--	--	--	3	3	2	3

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References Used
<b>Unit 1</b>	<b>Unit I: Introduction to Behavioural Economics</b>	<b>22</b>		
	Origins of Behavioural Economics	2	1,2	3,5
	Decision-making under Neo-classical economic framework- rationality, optimization Role of Intuition, Emotions, Beliefs in decision making	6	1,2	3,5
	Bounded Rationality Judgment under Risk & Uncertainty: Heuristics & Biases	4	1,2,3	1,5
	Heuristics: Representativeness, Substitution, Availability, Affect, Anchoring	6	1,2,3	1,5
	Framing Biases: Cognitive and emotional biases	4	1,2,3	1,5
<b>Unit 2</b>	<b>Unit II: Choice Under Risk &amp; Uncertainty</b>	<b>14</b>		
	Expected Utility Prospect Theory	2	2,3,4	1,2,3
	Risk Concept	2	2,3	1,3
	Understanding Shape of Utility Function	2	2,3,4	1,3
	Decision Weighting, Probabilistic Judgment	4	2,3,4	1,3
	Mental Accounting Framing Mental Accounts Fungibility & Labels Hedonic Editing	4	2,3	1,3
<b>Unit 3</b>	<b>UNIT III: Choice Under Risk &amp; Uncertainty</b>	<b>14</b>		
	Intertemporal Choice, Temporal Choice	2	2,3,4	1,4
	Construal Level Theory	2	2,3,4	1,4
	Valuation of Delayed Consumption Preferences for Sequences of Outcomes	4	2,3,4	1,4
	Hyperbolic Discounting	4	2,3,4	1,4
	Preference Reversal	2	2,3,4	1,4
<b>Unit 4</b>	<b>UNIT IV: Behavioural Game Theory and Social Preferences</b>	<b>10</b>		
	Fairness, Trust Cooperation, Reciprocity	4	2,3,4	2,3
	Strategic Thinking Choice architecture: Nudge, Nudge vs. boost	4	2,3,4	1,2
	Behavioural public policy	2	2,3,4	1,2
<b>Total Learning hours</b>		<b>60</b>		

**Learning Assessment**

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	80	70	60	60	60
	Understand					
Level 2	Apply	20	30	40	40	40
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### **Recommended Resources**

1. Erik Angner, "A Course in Behavioural Economics", Palgrave Macmillan
2. M. Altman, Handbook of Contemporary Behavioural Economics: Foundation and
3. Developments (2007), Prentice Hall India
4. E. Cartwright, Behavioural Economics (2011), Routledge
5. Behavioral Economics: Toward a New Economics by Integration with Traditional
6. Economics by Ogaki, Masao, Tanaka, Saori C. Published by Springer, ISBN
7. 978-981-10-6439-5
8. Nick Wilkinson; Matthias Klaes (2012), An Introduction to Behavioral Economics, 2nd
9. Edition, Palgrave Macmillan.

### **Other Resources**

1. D. Kahneman, Thinking Fast and Slow (2011), Allen Lane, Penguin Books
2. World Development Report 2015: Mind, Society, and Behaviour
3. G. Loewenstein, Exotic Preferences: Behavioural Economics and Human Motivation
4. (2007), Oxford University Press
5. Sanjit Dhami, "The Foundations of Behavioural Economic Analysis", Oxford University
6. Press (2016)

### **Course Designers**

### Labour Economics

Course Code	ECO 422	Course Category	Core Course (CC		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- Comprehend the unique features of the labor market, identify participants, and analyze key terminologies
- Analyze factors influencing demand and supply in the labor market, understand wage determination mechanisms in different market structures, and evaluate the impact of unions on wage rates.
- Analyze the role of labor regulations, evaluate the economic case for such regulations, and understand the influence of trade unions in the Indian context.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Demonstrate a comprehensive understanding of the labor market structure, including the economically active population, workforce participation, and the classification of labor markets.	2	80%	70%
<b>Outcome 2</b>	Apply economic principles to interpret wage differentials, discrimination, and equilibrium conditions in monopsony, perfectly competitive, and monopoly labor markets.	3	80%	70%
<b>Outcome 3</b>	Critically assess the impact of labor market policies, including the ILO Core Labor Standards, on working conditions, social security, and insurance, considering recent trends in India.	5	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
	Outcome 1	3	3	2	2	1			2	2	1	2	3	3	2
	Outcome 2	3	3	2	2	2			2	2	1	2	3	3	2
	Outcome 3	3	3	2	2	2			2	2	1	2	3	3	2
Course Average	3	3	2	2	2				2	2	1	2	3	3	2



**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit 1</b>	<b>INTRODUCTION</b>	<b>18 hrs</b>		
1	Unique features of the labour market; Participants in the labour market	03	01	01, 02
2	Labour market terminologies; economically active population	03	01	01, 02
3	Workforce participation; labour force participation rates	03	01	01, 02
4	Unemployment rate; Classification of labour markets	03	01	01,02
5	Positive and normative economics in the context of labour markets	03	01	01, 02
6	Labour markets and Pareto efficiency	01	01	01, 02
7	Causes of labour market failure	02	01	01,02
<b>Unit 2</b>	<b>LABOUR MARKET ANALYSIS</b>	<b>15 hrs</b>		
8	Demand for labour: Determinants of demand for labour	03	01,03	02, 03
9	Elasticity of Derived Demand: Supply of labour: Static Labour	02	01,03	02, 03
10	Leisure Choices; supply curve of labour; indifference curves and budget constraints	02	01,03	02, 03
11	Reservation wage; Labour market equilibrium: wage and employment determination in monopsony	02	01,03	02, 03
12	Perfectly competitive and monopoly labour markets	02	01,03	02, 03
13	Monopoly Union model and its impact on wage rate	02	01,03	02, 03
14	Wage differentials and discrimination	02	01,03	02, 03
<b>Unit 3</b>	<b>EMPLOYMENT AND UNEMPLOYMENT</b>	<b>15 hrs</b>		
15	Concept of Employment and Full Employment	03	02	02, 01
16	The added worker and discouraged worker hypothesis	03	02	02, 01
17	Segmented labour market; job search and vacancy analysis	03	02	02, 01
18	Unemployment causes and consequences; technology and employment	03	02	02, 01
19	Recent trends of employment and unemployment in India	03	02	02, 01
<b>Unit 4</b>	<b>LABOUR REGULATIONS AND LABOUR MARKET POLICIES IN INDIA</b>	<b>12 hrs</b>		
20	Role of regulations in labour markets, Economic case for labour market regulations: its impact	04	02	02,03
21	Trade unions in India; ILO Core Labour Standards	04	02	02,03
22	Recent trends in Working conditions; Social security and Insurance	02	02	02,03
23	Welfare funds-Employment exchanges; Vocational education and training	02	02	02,03
<b>Total Learning hours</b>		<b>60 hrs</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (60%)				End Semester Assessments (40%)
		CLA-1 (15%)	Mid-1 (15%)	CLA-2 (15%)	CLA-3 (15%)	
Level 1	Remember	40%	40%	40%	40%	40%
	Understand					
Level 2	Apply	60%	60%	60%	60%	60%
	Analyse					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

### Recommended Resources

1. Cahuc, P. & Zilberberg, A. (2004). Labour Economics, Massachusetts: MIT Press.
2. Reynolds, L. G., & Masters, S. H. (1997). Labour Economics and Labour Relations (11th ed), New York: Pearson,
3. Smith, S. (1994). Labour Economics, London: Routledge.
4. Ramaswamy, K. V. (2015). Labour, Employment and Economic Growth in India, New Delhi: Cambridge University Press

### Other Resources

### Course Designers

1. Internal (Institutional) Subject Matter Experts: Dr Manish Kumar
2. Expert Reviewers: Dr Raja Durai (School of Economics)
3. Prof. Maria Saleth (MIDS, Chennai)

### Health Economics

Course Code	ECO 423	Course Category	Core Course (CC)		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To understand fundamental health economics concepts, linking economic principles to healthcare dynamics.
- To analyse health care dynamics, using the Grossman Model and exploring factors influencing demand and supply.
- To evaluate market structures, failures, and information issues in health economics scenarios.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Apply economic principles to differentiate healthcare needs and requirements	3	80%	70%
<b>Outcome 2</b>	Analyze shifts in health care demand influenced by time, insurance, and individual behaviours	4	80%	70%
<b>Outcome 3</b>	Critically assess health insurance dynamics, moral hazard, and adverse selection, considering uncertainty in health-related scenarios	5	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
	Outcome 1	3	3	2	2	1			2	2	1	2	3	3	2
	Outcome 2	3	3	2	2	2			2	2	1	2	3	3	2
	Outcome 3	3	3	2	2	2			2	2	1	2	3	3	2
Course Average	3	3	2	2	2				2	2	1	2	3	3	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit 1</b>	<b>INTRODUCTION</b>	<b>15 hrs</b>		
1	The concept of health economics, public goods and health economics	04	01	01, 02
2	The relevance of health economics	04	01	01, 02
3	Health care as economic commodity	04	01	01, 02
4	The nature of health care: need versus requirements	03	01	01,02
<b>Unit 2</b>	<b>DEMAND AND SUPPLY OF HEALTH</b>	<b>15 hrs</b>		
5	The Grossman Model	04	01	02, 03
6	Determinants of health (medicine, education, lifestyle, other behavioural aspects)	05	01	02, 03
7	Shifts in demand for health care	03	01	02, 03
8	The role of time and insurance	03	01	02, 03
<b>Unit 3</b>	<b>MARKET STRUCTURE AND MARKET FAILURE IN HEALTH AND HEALTH CARE</b>	<b>15 hrs</b>		
9	Market structures	04	02	02, 01
10	Market failures	03	02	02, 01
11	Symmetric information and agency relationship	04	02	02, 01
12	Supplier induced demand	04	02	02, 01
<b>Unit 4</b>	<b>HEALTH INSURANCE, MORAL HAZARD AND ADVERSE SELECTION</b>	<b>15 hrs</b>		
13	Uncertainty and insurance	04	03	02, 01
14	The demand for insurance	04	03	02, 01
15	The supply of insurance	04	03	02, 01
16	Moral hazard and adverse selection	03	03	02, 01
<b>Total Learning hours</b>		<b>60 hrs</b>		

**Learning Assessment**

Bloom's Level of Cognitive Task		Continuous Learning Assessments (60%)				End Semester Assessments (40%)
		CLA-1 (15%)	Mid-1 (15%)	CLA-2 (15%)	CLA-3 (15%)	
Level 1	Remember	40%	40%	40%	40%	40%
	Understand					
Level 2	Apply	60%	60%	60%	60%	60%
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### **Recommended Resources**

1. . Bhattacharya, J., Hyde, T., Tu, P. (2014). Health economics, Palgrave Macmillan.
2. 2. World Development Report (1993). Investing in Health. The World Bank.
3. 3. Folland, S., Goodman, A. and Stano, M. (2000). The Economics of Health and Health Care. Third Edition. Prentice Hall.
4. 4. Clewar, A and Perkins, D. (1998). Economics of Health Care Management. London: Prentice Hall

### **Other Resources**

### **Course Designers**

1. Internal (Institutional) Subject Matter Experts: Dr Manish Kumar
2. Expert Reviewers: Dr Raja Durai (School of Economics)
3. Prof. Maria Saleth (MIDS, Chennai)

### Theories of Growth

Course Code	ECO 425	Course Category	Core Elective		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- The student will be able to understand the concept of growth.
- To assist students in comprehending the theories and strategies of growth and development.
- Evaluate how economic reasoning can be applied to study relevant problems and policies in economics.
- This course exposes students to some of the key ideas and concepts in the areas of economic growth and human development.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Describe the tools for measuring development			
<b>Outcome 2</b>	Learn hardcore economic prescriptions to development, concerns hitherto relegated to background like education, health, sanitation and infrastructural development, have found a place of pride in explaining the preference of various economies.	2	70%	65%
<b>Outcome 3</b>	To explain development economic growth theories, international trade development theories, and related economic development theories.	2	70%	65%
<b>Outcome 4</b>	Describe the issues and challenges of development	2	70%	
<b>Outcome 5</b>	Identify the theories of development useful for Indian Economy	3	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	2	1							2	3	1	2
Outcome 2	3	3	3	3	2	1	1		2			2	3	2	2
Outcome 3	3	3	3	3	2		2		2			2	3	2	2
Outcome 4	3	3	3	3	2	1			3			2	3	2	2
Outcome 5	3	3	3	3	3	1	1		2			3	3	2	2
Average	3	3	3	3	2	1	1		2			2	3	2	2

## Course Unitization Plan

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit I</b>	<b>Conceptions of Development</b>	<b>11</b>		
1	Alternative measures of development	4	1	1
2	Documenting the international variations in these measures	4	1	1
3	Comparing development trajectories across nations and within them.	3	2	1
<b>Unit II</b>	<b>Theories of Economic Development</b>	<b>11</b>		
4	Adam Smith	2	3	2, 3
5	Ricardo	2	3	2, 3
6	Marx theory of growth	3	3	2, 3
7	Schumpeter theory of growth	2	3	2, 3
8	Rostow stages of growth	2	3	2, 3
<b>UNIT III</b>	<b>Growth Models and Empirics</b>	<b>14</b>		
9	The Harrod-Domar model	3	1, 2	2, 3
10	The Solow model and its variants	3	1, 2	2, 3
11	Fei and ranis' model	2	1, 2	2, 3
12	Lewis model of unlimited supply of labour	3	1, 2	2, 3
13	Evidence on the determinants of growth	3	1, 2	2, 3
<b>UNIT IV</b>	<b>Poverty and Inequality: Definitions, Measures and Mechanisms</b>	<b>15</b>		
14	Inequality axioms	2	1, 2	1
15	A comparison of commonly used inequality measures	3	1, 2	1
16	Connections between inequality and development	2	1, 2	1
17	Poverty measurement;	3	1, 2	1
18	Characteristics of the poor	2		1
19	mechanisms that generate poverty traps and path dependence of growth processes.	3		1
<b>UNIT V</b>	<b>Political Institutions and the Functioning of the State</b>	<b>9</b>		
20	The determinants of democracy	3	4	2
21	alternative institutional trajectories and their relationship with economic performance	3	4	2
22	Within country differences in the functioning of state	3	4	2
	<b>Total</b>	<b>60</b>		

## Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	60%		60%		40%		40%		50%	
	Understand										
Level 2	Apply	40%		40%		60%		60%		50%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

## Recommended Resources

## Other Resources

## Course Designers





### Classical Political Economy

Course Code	ECO 426	Course Category	Departmental Elective		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To introduce the economic theory, ideas, and postulates of the various schools of thought, ranging from mercantilism to the contemporary period.
- To understand the evolution and limitations of various schools of thought.
- To understand the relevance of each school of thought to the current period.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	To articulate and elucidate the concepts underlying diverse schools of thought	2	80	75
<b>Outcome 2</b>	To articulate and elucidate the constraints inherent in diverse streams of thought	2	75	75
<b>Outcome 3</b>	To explicate and implement the development of diverse streams of thought	3	60	60
<b>Outcome 4</b>	To evaluate and implement the concepts of diverse schools of thought in practical situations	3	70	60

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3											2			
Outcome 2	3											2			
Outcome 3	3	3	3	3								2			3
Outcome 4	3	3	3		2							2	3		3
Average	3	3	3	3	2							2	3		3

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit 1</b>	<b>Mercantilism and Classical School</b>	<b>18 hrs</b>		
	Mercantilism; Laissez Faire; Quesnay and the Physiocrats;	06	01	01,02
	Adam Smith: invisible hand-accumulation and distribution of Income-value	04	01	01,02
	Market and competition-institutions; Ricardo-Corn laws and theory of rent;	04	01,02	01,02
	J S Mills: synthesis of the classical economics	04	01,02	01,02
<b>Unit II</b>	<b>Marx's Economics Theory</b>	<b>18 hrs</b>		
	Exploitation and value;	06	02	01, 02
	Wages, trade cycles and Law of movement of capitalist economy	06	02	01, 02
	Monetary aspects of cycles and the crisis	06	02	01, 02
<b>Unit III</b>	<b>Marginal Revolution and Neoclassical Orthodoxy</b>	<b>12 hrs</b>		
	Neoclassical theoretical system;	06	01,02	01, 02
	Neoclassical Orthodoxy- Belle epoque, Alfred Marshall	06	01,02	01, 02
<b>Unit IV</b>	<b>Years of High Theory</b>	<b>12 hrs</b>		
	John Maynard Keynes: The General Theory: J A Schumpeter: equilibrium and development, trade cycle and money	06	01,03	01, 02
	Money Forms: Sraffa-Chamberlin-Joan Robinson: Contribution to the study of Market Forms.	06	01,03	01, 02
<b>Total Learning hours</b>		<b>60 hrs</b>		

**Learning Assessment**

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (15%)	Mid-1 (15%)	CLA-2 (10%)	CLA-3 (10%)	
Level 1	Remember	80	70	60	60	60
	Understand					
Level 2	Apply	20	30	40	40	40
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Recommended Resources**

1. Screpanti, Ernesto, and Stefano Zamagni, 'Introduction', in David Field (ed.), An Outline of the History of Economic Thought, 1st edn ( Oxford , 1995; online edn, Oxford Academic, 1 Nov. 2003),
2. Lokanathan V. A History of Economic Thought, 10th Edition Publisher: S. Chand Publishing.

**Other Resources****Course Designers**



### Industrial Economics

Course Code	ECO 427	Course Category				
			L	T	P	C
			4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)	ECO 375	
Course Offering Department	Economics	Professional / Licensing Standards				

#### Course Objectives / Course Learning Rationales (CLRs)

- To introduce to the basics of industrial economics.
- To understand to the behaviour of firms under different market conditions.
- To understand the structure, performance and the decision-making process of an industry.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Understand the Behaviour of firms under different market conditions	2	70%	65%
<b>Outcome 2</b>	Establish relationship between industrial structure and performance.	2	70%	65%
<b>Outcome 3</b>	Understand the basics of industrial economics	2	70%	65%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	2	2	1				2	2	1	2	3	3	2
Outcome 2	3	3	2	2	1				2	2	1	2	3	3	2
Outcome 3	3	3	2	2	2				2	2	1	2	3	3	2
Average	3	3	2	2	2				2	2	1	2	3	3	2

## Course Unitization Plan

Unit No.		Required Learning hours	CLOs Addressed	References Used
<b>Unit I</b>	<b>Introduction</b>	<b>15</b>		
1	Conceptual Framework	2	1	1
2	History and Scope of Industrial Economics	2	1	1
3	Concept of firm	2	1	1
4	Organisation Patten of firm; Objectives of firm; Ownership and Control of Firm;	1		
5	Location of firm;	1	1	1
6	Theories of location- Weber's Theory, Sargent Florence Theory	1	1	1
<b>Unit II</b>	<b>Theoretical Framework</b>	<b>10</b>		
7	The traditional structure, Conduct and Performance Approach	1	2	1
8	The modern Structure	1	2	1
9	The Welfare basis in Industrial Economics	1	2	1
10	The case against monopoly	1	2	1
11	The Williamson Trade-Off Conditions	2	2	1
<b>UNIT III</b>	<b>Cost Theory and Capacity Utilization of Firms</b>	<b>15</b>		
12	Theory of Cost and Production	1	2,3	1, 2
13	Efficiency and the Size of firms	1	2,3	
14	Effect of firm size on performance indicators	2	2,3	1, 2
15	Return to scale	1	2,3	1, 2
16	Capacity Utilization	1	2,3	1, 2
<b>UNIT IV</b>	<b>Industrial Structure I</b>	<b>10</b>		
17	The Industrial Concentration	1	4	2, 3
18	Its Derivation	1	4	2, 3
19	Characteristics of a Good Measure of Concentration	1	4	2, 3
<b>UNIT V</b>	<b>Industrial Structure II</b>	<b>10</b>		
20	The Herfindahl Index of Concentration	1	5	2,3
21	G-Firm Concentration Ratio	1	5	2,3
22	The Entropy Index and Linda Index	1	5	2,3
23	Competitiveness and other Alternative Theories	1	5	2,3
<b>Total Learning hours</b>		<b>60</b>		

## Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (15%)		Mid-1 (15%)		CLA-2 (10%)		CLA-3 (10%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	40%		90%		40%		80%		70%	
	Understand										
Level 2	Apply	60%		10%		60%		20%		30%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### **Recommended Resources**

1. Industrial Economics and Concentration, Hay and Morris, Publisher: Oxford University Press 1991.
2. Industrial Economics, R. R . Barthwal, Publisher: Wiley Easten Ltd 2010.
3. Theory of Industrial Economics, Clement G Krouse, Basil Blackwell Ltd 1990
4. Economic Theory of the Industry, Micheal Waterson, Cambridge University Press 1986.

### **Other Resources**

### **Course Designers**

1. Internal (Institutional) Subject Matter Experts: Dr. J Vineesh Prakash
2. Expert Reviewers : Dr Raja Durai (School of Economics) Prof. Maria Saleth (MIDS, Chennai)

### Law and Economics

Course Code	ECO 428	Course Category	Core Course (CC)		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To integrate economic concepts with legal principles to cultivate a holistic understanding of how economic theory informs legal analysis.
- To explore and compare civil and common legal traditions, examining the evolution of legal rules and their economic implications.
- To develop the ability to apply economic theories to legal concepts, emphasizing property, contracts, torts, and their economic underpinnings

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Apply economic analysis to legal problems, prioritizing efficiency over distribution in the context of private law	3	80%	70%
<b>Outcome 2</b>	Understand the nature of legal traditions, legal disputes, and the evolution of legal rules within the framework of economic perspectives	2	80%	70%
<b>Outcome 3</b>	Master economic theories related to property, contracts, and torts, gaining insights into the economic dimensions of legal concepts and their practical applications	5	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	2	2	1				2	2	1	2	3	3	2
Outcome 2	3	3	2	2	2				2	2	1	2	3	3	2
Outcome 3	3	3	2	2	2				2	2	1	2	3	3	2
Course Average	3	3	2	2	2				2	2	1	2	3	3	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit 1</b>	<b>INTRODUCTION TO LAW AND ECONOMICS</b>	<b>15 hrs</b>		
1	Meaning of Economic Analysis of Law & Some Examples	05	01	1
2	Primacy of Efficiency over Distribution in analyzing Private Law	05	01	1
3	Law and Legal Institutions	05	01	1
<b>Unit 2</b>	<b>AN INTRODUCTION TO LAW AND LEGAL TRADITIONS</b>	<b>14 hrs</b>		
4	The Legal Traditions	04	01,03	1
5	The Civil and Common	04	01,03	1
6	Nature of Legal Dispute	03	01,03	1
7	Evolution of Legal Rules	03	01,03	1
<b>Unit 3</b>	<b>AN ECONOMIC THEORY OF PROPERTY</b>	<b>15 hrs</b>		
8	Legal Concept of Property	03	02	1
9	Bargaining Theory	03	02	1
10	The Origins of Institution of Property: A Thought Experiment	03	02	1
11	An Economic Theory of Property	03	02	1
12	Ownership and Protection of Property	03	02	1
<b>Unit 4</b>		<b>8 hrs</b>		
13	An Economic Theory of Contract	02	02	1
14	Bargain Theory of Contract	02	02	1
15	Economic Theory of Contract	02	02	1
16	Economics of Contract Law	02	02	1
<b>Unit 5</b>		<b>8 hrs</b>		
17	An Introduction to Economic Theory of Tort Law	02	01,03	1
18	Basics of Law of Tort	02	01,03	1
19	Economics of Tortious Liability	02	01,03	1
20	Economics of Damage Remedy	02	01,03	1
<b>Total Learning hours</b>		<b>60 hrs</b>		

**Learning Assessment**

Bloom's Level of Cognitive Task		Continuous Learning Assessments (60%)				End Semester Assessments (40%)
		CLA-1 (15%)	Mid-1 (15%)	CLA-2 (15%)	CLA-3 (15%)	
Level 1	Remember	40%	40%	40%	40%	40%
	Understand					
Level 2	Apply	60%	60%	60%	60%	60%
	Analyse					
Level 3	Evaluate					
	Create					
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>



### **Recommended Resources**

1. Cooter, R., & Ulen, T. (2014). Law and Economics (6th ed.). Harlow: Pearson.

### **Further Readings:**

1. Friedman, D. D. (2001). Law's order: What economics has to do with law and why it matters. Princeton University Press.
2. Posner, R. A. (2014). Economic Analysis of Law. Wolters Kluwer Law & Business.
3. Veljanovski, C. G. (2007). Economic Principles of Law. Cambridge University Press.
4. Posner, R. A. (1981). The Economics of Justice. Cambridge, MA: Harvard University Press

### **Other Resources**

### **Course Designers**

1. Internal (Institutional) Subject Matter Experts: Dr Manish Kumar
2. Expert Reviewers: Dr Raja Durai (School of Economics)
3. Prof. Maria Saleth (MIDS, Chennai)

### Agricultural Economics

Course Code	ECO 429	Course Category				
			L	T	P	C
			4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)		
Course Offering Department	Economics	Professional / Licensing Standards				

#### Course Objectives / Course Learning Rationales (CLRs)

- To expose the students to the concept, significance and uses of agricultural production economics.
- To the use of economic tools and concepts in the analysis and evaluation of public policies affecting agriculture, food, natural resources, and the environment.
- To enable the students to understand the theories and strategies of growth and development of agriculture sector.
- This course exposes students to economic principles, with emphasis on their application to the solution of farm, agribusiness, and agricultural industry problems, application to the solution of farm, agribusiness, and agricultural industry problems.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Understand the importance of agriculture sector in overall economy	2		
<b>Outcome 2</b>	Explain Agriculture production and consumption by using economic theory for support.	2	80%	70%
<b>Outcome 3</b>	To explain production economics tools for agricultural decision making	2	80%	70%
<b>Outcome 4</b>	Understanding limited resources available in the economy. Realize the need to exploit and utilize through development and improvement of production techniques.	2	80%	70
<b>Outcome 5</b>	Discuss the impact of regional, national, and global agribusiness policy	3	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	2	2	1							2	3	1	2
Outcome 2	3	3	3	3	2	1	2		2			2	1	2	3
Outcome 3	3	2	3	3	2		2		2			3	3	2	2
Outcome 4	3	3	3	2	2	1			3			2	1	2	2
Outcome 5	3	2	3	2	3	1	2		2			3	3	2	2
Average	3	3	3	3	2	1	2		2			2	3	2	2

**Course Unitization Plan**

Unit No.	Unit Name	Required Learning hours	CLOs Addressed	References
<b>Unit I</b>	<b>Introduction</b>	<b>17</b>		
1	Definition, Scope, and Nature	2	1	1
2	Need for a Separate Study of Agricultural Economics	2	1	1
3	Agricultural Linkages with Other Sectors,	2	2	1
4	Role of Agriculture in Economic Development,	2	1	
5	Declining Importance of Agriculture in Economic Development	2	3	2, 3
6	Concept of Production Function	3	2	
7	Input-output and Product Relationship	2	2	
8	Equilibrium of share-tenant farm and efficiency.	2	2	
<b>Unit II</b>	<b>Nature and Type of Risk and Uncertainty</b>	<b>14</b>		
10	Risk and uncertainty in agriculture	3	3	2, 3
11	Nature of supply and demand for agriculture products	4	3	2, 3
12	Instability of agriculture	3	3	2, 3
13	Schultz theory and role of technological change	4	3	
<b>UNIT III</b>	<b>Land reforms and green revolution in India</b>	<b>16</b>		
14	Objectives, progress and assessment of land reforms	4	1, 2	2, 3
15	Nature of emerging agrarian structure	4	1, 2	2, 3
16	Green Revolution in India	4	1, 2	2, 3
17	Overview growth of Agriculture	4	1, 2	2, 3
<b>UNIT IV</b>	<b>Agricultural Issues</b>	<b>13</b>		
18	Farm size and productivity	3	1, 2	1
19	Problems of mechanization	3	1, 2	1
20	Agriculture credits in India	3	1, 2	1
21	WTO and Indian Agriculture.	4	1, 2	1
	<b>Total</b>	<b>60</b>		

**Learning Assessment**

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	60%		60%		40%		40%		50%	
	Understand										
Level 2	Apply	40%		40%		60%		60%		50%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

**Recommended Resources****Other Resources****Course Designers**



### Game Theory

Course Code	ECO 431	Course Category	Core		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To understand the need and scope of Game Theory.
- To understand the fundamental concepts underlying static and dynamic games.
- Application of the concepts of Game Theory to real-life situations.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Define, explain, and apply Rational Choice Theory and game forms.	3	60	60
<b>Outcome 2</b>	Define, explain, and apply solution techniques for static and dynamic games.	3	60	60
<b>Outcome 3</b>	Apply backward induction, subgame equilibrium to different market types.	3	60	60
<b>Outcome 4</b>	Apply game theory solution techniques to solving for price and quantity of firms in different market types.	3	60	60

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3											2			
Outcome 2	3											2			
Outcome 3	3	3							2			2			
Outcome 4	3	3	3	3					2			2			
Average	3	3	3	3					2			2			

### Course Unitization Plan

Sl. No	Unit Name	Learning hours	CLO's Addressed	Reference
	<b>UNIT I: Static games of complete information</b>	<b>16</b>		
1	Rational Choice Theory	2	1	1
2	Normal vs Extensive game form, Solution Concept	2	1	1
3	Dominance Solution Techniques	4	1,2	1
4	Equilibrium Solution Techniques	4	1,2	1
5	Constant-Sum and Zero-Sum game	2	1,2	3
6	Best Response Functions	2	1,2	3
	<b>UNIT II: Dynamic Games of Complete Information</b>	<b>20</b>		
7	Introduction to Dynamic Game Theory	1	2	1,2
8	Extensive forms	1	1	1,2
9	Backward Induction	4	2,3	1,2
10	Application: Stackelberg Model of Duopoly	4	2,3,4	1,2
11	Sequential Bargaining	2	2,3	2
12	Dynamic model of complete but imperfect information	2	2	1,2
13	Subgame Perfect Nash Equilibrium	4	1,2	1,2
14	Solution Concept for Sequential Games	2	2	2
	<b>UNIT III: Static Games of Incomplete Information</b>	<b>13</b>		
15	Incomplete information	1		2
16	Notion of Type and Strategy	3	2	2
17	Static Bayesian games	3	2,3	2
18	Bayesian Nash Equilibrium	2	2,3	2
19	Examples of Bayesian Nash Equilibrium	4	2,3	2
	<b>UNIT IV: Application</b>	<b>11</b>		
20	Game theory and Strategic Decision Making under Oligopoly	6	3,4	3
21	Dominant Strategies	1	3,4	3
22	Nash Equilibrium	1	3,4	3
23	Entry Deterrence and Cartel games	2	2,4	3
24	Games with Incomplete Information	1	4	3

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	80	70	70	60	60
	Understand					
Level 2	Apply	20	30	30	40	40
	Analyse					
Level 3	Evaluate					
	Create					
Total		100%	100%	100%	100%	100%

### Recommended Resources

1. Osborne, M. J., An Introduction to Game Theory, Oxford University Press, 2003.
2. R. Gibbons, A Primer in Game Theory, Princeton University Press.
3. R. Gibbons, Game Theory for Applied Economists, Princeton University Press

### Other Resources

### Course Designers



### Money, Banking and Finance

Course Code	ECO 474	Course Category	Core Course (CC)		L	T	P	C
					4	0	0	4
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)				
Course Offering Department	Economics	Professional / Licensing Standards						

#### Course Objectives / Course Learning Rationales (CLRs)

- To introduce concepts in money and banking.
- Exposes students to the theory and functioning of the monetary and financial sectors.
- It discusses the interest rate concepts as well.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Discuss the economic principles underlying the working of financial institutions.	2	70%	70%
<b>Outcome 2</b>	Describe the working of central banks conducting monetary policy.	1	70%	70%
<b>Outcome 3</b>	Apply models on monetary and macroeconomic problems.	3	70%	70%
<b>Outcome 4</b>	Conduct a theoretical analysis of given banking problems.	2	70%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	2	3	2	3	1			2		2	3	2	2	3
Outcome 2	3	2	1	2	3	1			2		2	3	2	3	1
Outcome 3	3	2	3	2	3	1			2		2	3	2	3	3
Outcome 4	3	2	1	2	3	1			2		2	3	2	1	1
Average	3	2	2	2	3	1			2		2	3	2	2	2



**Course Unitization Plan**

<b>Unit No.</b>	<b>Unit Name</b>	<b>Required Learning hours</b>	<b>CLOs Addressed</b>	<b>References Used</b>
<b>Unit I</b>	<b>Money</b>	<b>15</b>		
	Introduction	2	1	1
	Theoretical and empirical approaches to money definition	2	1	1
	Functions	3	1	1
	Different Approaches	4	1	1
	Measurements	2	1	1
	Theories of money supply determination	2	1	1
<b>Unit II</b>	<b>Money Financial Institutions, Markets, Instruments and Financial Innovations</b>	<b>15</b>		
	Role of financial markets and institutions	3	1	1
	The problem of asymmetric information	2	1	1
	Adverse selection and moral hazard financial crises	3	1	1
	Money and capital markets	2	1	1
	organization, structure, and reforms in India,	2	1	1
	financial derivatives, and other innovations	3	1	1
<b>Unit III</b>	<b>Interest Rates</b>	<b>15</b>		
	Introduction of Interest rates	3	2	1,2
	Determination of interest rates	2	2	1,2
	Sources of interest rate differentials;	2	2	1,2
	Theories of term structure of interest rates	2	2	1,2
	Interest rates in India	3	2	1,2
	Comparison of interest rates	3	2	1,2
<b>Unit IV</b>	<b>Banking System and Central Banking and Monetary Policy</b>	<b>15</b>		
	Balance sheet and portfolio management	2	4	1,2
	Indian banking system: Changing role and structure; banking sector reforms	3	4	1,2
	Functions	2	4	1,2
	Balance sheet; goals, targets, indicators, and instruments of monetary control	4	4	1,2
	Monetary management in an open economy;	2	4	1,2
	current monetary policy of India.	2	4	1,2

### Learning Assessment

Bloom’s Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (10%)		Mid-1 (15%)		CLA-2 (10%)		Mid-2 (15%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	40%		60%		40%		60%		40%	
	Understand										
Level 2	Apply	60%		40%		60%		40%		60%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### Recommended Resources

1. Mishkin Frederick S (2015), The Economics of Money, Banking and Financial Markets
2. L. M. Bhole and J. Mahukud, Financial Institutions and Markets, Tata McGraw Hill, 5th edition, 2011

### Other Resources

1. R.B.I. Bulletin, Annual Report and Report on Currency and Finance (latest).

### Course Designers

1. Dr Kamal Sai Sadharma Erra, Assistant Professor, Department of Economics, SRM University- AP.

### Fintech

Course Code	SEC 122	Course Category					L	T	P	C
							3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)						
Course Offering Department	Economics	Professional / Licensing Standards								

#### Course Objectives / Course Learning Rationales (CLRs)

- To understand fintech in the context of the digital economy.
- To introduce to the enablers of a digital economy.
- To understand the impact of fintech

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	Gain a foundational understanding about fintech startups	3	80%	70%
<b>Outcome 2</b>	Familiarize with basic enablers of a digital economy	3	80%	70%
<b>Outcome 3</b>	Gain a foundational knowledge on fintech innovations and disruptions	2	80%	70%
<b>Outcome 4</b>	Gain a foundational knowledge on the impact of fintech	3	80%	70%

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Lifelong Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	2	2	1				2	2	1	2	3	3	2
Outcome 2	3	3	2	2	1				2	2	1	2	3	3	2
Outcome 3	3	3	2	2	2				2	2	1	2	3	3	2
Outcome 4	3	3	2	2	2				2	2	1	2	3	3	2
<b>Course Average</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>				<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>

### Course Unitization Plan

Unit No.	Unit Name	Required Contact Hours	CLOs Addressed	References
<b>Unit 1</b>	<b>Fintech in the Context of the Digital Economy</b>	<b>10 hrs</b>		
	Fintech Startups	02	01	01,02
	The 10 Stacks of a Digital Economy	02	01	01,02
	Challenges in the Fintech Journey	01	01,03	01,02
	The Landscape of Fintech	01	01,03	01,02
	Influence of FinTech companies on banking landscape in the Indian context	02	01, 02	01, 02
	Role of FinTech in accelerating financial inclusion in India	02	01,04	01,04
<b>Unit II</b>	<b>Enablers of a Digital Economy</b>	<b>10 hrs</b>		
	Cryptoassets	02	02	01, 02
	Drawbacks of Cryptoassets: “Blockchain, not Bitcoin”	02	02	01, 02
	Open Banking: Digital Payments Systems	03	02	01, 02
	Essentials for Operating in the Open Banking Space	03	02,03	01, 02
<b>Unit III</b>	<b>Fintech Innovations and Disruptions</b>	<b>15 hrs</b>		
	Disruption in Asset Servicing	06	01,03	01, 02
	Disruptive Technologies	06	01,03	01, 02
	Disruption in the Capital Markets	03	01,03	01, 02
<b>Unit IV</b>	<b>The Impact of Fintech</b>	<b>10 hrs</b>		
	Legal Implications of Fintech	04	01	01, 02
	Smart Nations: Collaboration and Competition Between Jurisdictions	04	01, 03	01, 02
	Future Developments	02	01, 03	01, 02
<b>Total Contact Hours</b>		<b>45 hrs</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)								End Semester Exam (50%)	
		CLA-1 (15%)		Mid-1 (15%)		CLA-2 (10%)		CLA-3 (10%)			
		Th	Prac	Th	Prac	Th	Prac	Th	Prac	Th	Prac
Level 1	Remember	40%		40%		40%		40%		40%	
	Understand										
Level 2	Apply	60%		60%		60%		60%		60%	
	Analyse										
Level 3	Evaluate										
	Create										
Total		100%		100%		100%		100%		100%	

### Recommended Resources

1. Recommended Resources
1. Gupta, P., & Tham, T. M. (2018). Fintech: the new DNA of financial services. Walter de Gruyter GmbH & Co KG.
2. Jaspal Singh (2022). Financial Technology (FinTech) and Digital Banking in India. New Century Publications.
3. Paul Vigna and Michael J. Casey (2015), The age of cryptocurrency: how bitcoin and digital money are challenging the global economic order, New York: St. Martin's Press.
4. Brett King (2020), Bank 4.0: Banking Everywhere, Never at a Bank, Wiley

### Other Resources

### Course Designers

1. Dr J Vineesh Prakash, Assistant Professor, Department of Economics, SRM University – Andhra Pradesh.

## Lesson Plan

<b>1. Topic(s):</b> Fintech Startups, The 10 Stacks of a Digital Economy, Challenges in the Fintech Journey, The Landscape of Fintech		<b>CO: 1</b>
<b>Name of Faculty from Synergy Dept. / Other Institution / Industry</b>		
<b>2. Topic Learning Outcome(s)</b> Gain a foundational understanding of Data Analysis		
<b>Previous:</b>	<b>Current:</b>	<b>Following:</b>
<b>3.Pedagogy (all that apply)</b>		
PBL (Problem or Project Based Learning) / ABL (Activity Based Learning) / EL (Experiential Learning)		<b>Topic Learning Hours</b> 10
<b>4. Active Learning Techniques</b> <ul style="list-style-type: none"><li>Discussions / Interactions /Q&amp;A / Jigsaw etc.</li></ul>	<b>In Class Hours</b>	<b>Out of Class Hours</b> 10
<b>5. Resources</b> <ul style="list-style-type: none"><li>Book Chapter/ Pages . Chapter 02, 03, Gupta, P., &amp; Tham, T. M. (2018). Fintech: the new DNA of financial services. Walter de Gruyter GmbH &amp; Co KG. Notes</li><li>E-resources</li><li>Problem Sets</li><li>Practice Work w/ solutions</li></ul>		<b>Blended Learning Hours</b>
<b>6.Assessments</b>		
<b>Assessment Component(s)</b> (CLA 1)	<b>Assessment Type</b> Quiz	<b>Marks</b> 15
<b>1. Topic(s):</b> Cryptoassets, Drawbacks of Cryptoassets: “Blockchain, not Bitcoin” , Open Banking: Digital Payments Systems, Essentials for Operating in the Open Banking Space		<b>CO: 1&amp;2</b>
<b>Name of Faculty from Synergy Dept. / Other Institution / Industry</b>		
<b>2. Topic Learning Outcome(s)</b> Gain a foundational understanding of Data Analysis, Familiarize with basic software’s for Data Analysis		
<b>Previous:</b>	<b>Current:</b>	<b>Following:</b>
<b>3.Pedagogy (all that apply)</b>		
PBL (Problem or Project Based Learning) / ABL (Activity Based Learning) / EL (Experiential Learning)		<b>Topic Learning Hours</b> 15
<b>4. Active Learning Techniques</b> <ul style="list-style-type: none"><li>Discussions / Interactions /Q&amp;A / Jigsaw etc.</li></ul>	<b>In Class Hours</b>	<b>Out of Class Hours</b> 15
<b>5. Resources</b> <ul style="list-style-type: none"><li>Book Chapter/ Pages . Chapter 09, 10 Gupta, P., &amp; Tham, T. M. (2018). Fintech: the new DNA of financial services. Walter de Gruyter GmbH &amp; Co KG.</li><li>Notes</li><li>E-resources</li><li>Problem Sets</li><li>Practice Work w/ solutions</li></ul>		<b>Blended Learning Hours</b>
<b>6.Assessments</b>		
<b>Assessment Component(s)</b> (Mid-Term)	<b>Assessment Type</b> Quiz	<b>Marks</b> 15

<b>1. Topic(s):</b> Disruption in Asset Servicing, Disruptive Technologies, Disruption in the Capital Markets		<b>CO: 2&amp;3</b>
<b>Name of Faculty from Synergy Dept. / Other Institution / Industry</b>		
<b>2. Topic Learning Outcome(s)</b> Familiarize with basic software's for Data Analysis, Gain a foundational knowledge on statistical Analysis		
<b>Previous:</b>	<b>Current:</b>	<b>Following:</b>
<b>3.Pedagogy (all that apply)</b>		
PBL (Problem or Project Based Learning) / ABL (Activity Based Learning) / EL (Experiential Learning)		<b>Topic Learning Hours</b> <b>15</b>
<b>4. Active Learning Techniques</b> <ul style="list-style-type: none"> <li>Discussions / Interactions /Q&amp;A / Jigsaw etc.</li> </ul>	<b>In Class Hours</b>	<b>Out of Class Hours</b> <b>15</b>
<b>5. Resources</b> <ul style="list-style-type: none"> <li>Book Chapter/ Pages . Chapter 13 and 14 Gupta, P., &amp; Tham, T. M. (2018). Fintech: the new DNA of financial services. Walter de Gruyter GmbH &amp; Co KG.</li> <li>Notes</li> <li>E-resources</li> <li>Problem Sets</li> <li>Practice Work w/ solutions</li> </ul>		<b>Blended Learning Hours</b>
<b>6.Assessments</b>		
<b>Assessment Component(s)</b> <i>(CLA II)</i>	<b>Assessment Type</b> <i>Quiz</i>	<b>Marks</b> <i>10</i>

<b>1. Topic(s):</b> Legal Implications of Fintech, Smart Nations: Collaboration and Competition Between Jurisdictions, Future Developments		<b>CO: 3</b>
<b>Name of Faculty from Synergy Dept. / Other Institution / Industry</b>		
<b>2. Topic Learning Outcome(s)</b> Familiarize with basic software's for Data Analysis, Gain a foundational knowledge of inferential statistics with practical applications		
<b>Previous:</b>	<b>Current:</b>	<b>Following:</b>
<b>3.Pedagogy (all that apply)</b>		
PBL (Problem or Project Based Learning) / ABL (Activity Based Learning) / EL (Experiential Learning)		<b>Topic Learning Hours</b> <b>15</b>
<b>4. Active Learning Techniques</b> <ul style="list-style-type: none"> <li>Discussions / Interactions /Q&amp;A / Jigsaw etc.</li> </ul>	<b>In Class Hours</b>	<b>Out of Class Hours</b> <b>15</b>
<b>5. Resources</b> <ul style="list-style-type: none"> <li>Book Chapter/ Pages . Chapter 25, Gupta, P., &amp; Tham, T. M. (2018). Fintech: the new DNA of financial services. Walter de Gruyter GmbH &amp; Co KG.</li> <li>Notes</li> <li>E-resources</li> <li>Problem Sets</li> <li>Practice Work w/ solutions</li> </ul>		<b>Blended Learning Hours</b>
<b>6.Assessments</b>		

Assessment Component(s) <i>(CLA III)</i>	Assessment Type <i>Quiz</i>	Marks <i>10</i>
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### Understanding India's Economic Survey and Union Budget

Course Code	SEC 123	Course Category				
			L	T	P	C
			3	0	0	3
Pre-Requisite Course(s)		Co-Requisite Course(s)		Progressive Course(s)		
Course Offering Department	Economics	Professional / Licensing Standards				

#### Course Objectives / Course Learning Rationales (CLRs)

- To familiarize students with a basic and comprehensive understanding of the framework, structure, and components of India's Economic Survey and Union Budget, and significance of these documents in shaping the country's economic policies.
- To enable students to critically analyse key economic indicators and policy recommendations presented in the Economic Survey and Union Budget.
- To assess the socio-economic impact of the Economic Survey and Union Budget on various sectors and demographic groups, exploring how these policies influence economic growth and public welfare.
- To cultivate holistic skills by integrating perspectives from economics, public policy, and governance, for students to engage in critical evaluation of India's economic strategies.

#### Course Outcomes / Course Learning Outcomes (CLOs)

	At the end of the course the learner will be able to	Bloom's Level	Expected Proficiency Percentage	Expected Attainment Percentage
<b>Outcome 1</b>	To gain knowledge and identify the key sections and components of India's Economic Survey and Union Budget, including significant economic indicators and policy announcements.	1	80%	70%
<b>Outcome 2</b>	Explain various policies and economic strategies outlined in the Economic Survey and Union Budget, demonstrating an understanding of their relevance and impact on India's economy.	2	80%	70%
<b>Outcome 3</b>	To apply economic theories to interpret Economic Survey and Union Budget, assessing the implications of specific policies on economic growth.	3	80%	70%
<b>Outcome 4</b>	To critically evaluate different sections of the Economic Survey and Union Budget, identifying key trends, challenges, and opportunities within India's economic landscape.	4	80%	70

#### Course Articulation Matrix (CLO) to Program Learning Outcomes (PLO)

CLOs	Program Learning Outcomes (PLO)														
	Scientific and Disciplinary Knowledge	Analytical Reasoning and Problem Solving	Critical and Reflective Thinking	Scientific Reasoning and Design Thinking	Research Related Skills	Modern Tools and ICT Usage	Environment and Sustainability	Moral, Multicultural and Ethical Awareness	Individual and Teamwork Skills	Communication Skills	Leadership Readiness Skills	Self-Directed and Life Long Learning	PSO 1	PSO 2	PSO 3
Outcome 1	3	3	3	3	1							2	3	3	3
Outcome 2	3	3	3	3	2							2	3	3	3
Outcome 3	3	3	3	3	2		1		2			2	3	3	3
Outcome 4	3	3	3	3	3				2			2	3	3	3
Course Average	3	3	3	3	2	1	1		1			2	3	3	3



**Course Unitization Plan**

Unit No.		Required Learning hours	CLOs Addressed	References
<b>Unit I</b>	<b>Introduction to the Concepts</b>	<b>15 hours</b>		
1	Government spending in India	2	1,2	1,3
2	Types of expenditure: Capital and Revenue; Plan and non-plan	3	1,2	3
3	Deficits – Primary, revenue and fiscal	2	1,2	3
4	Receipts: Capital and revenue; tax and non-tax revenue; direct and indirect taxes; GST	2	1,2	3
5	Budget estimates: Actual and revised	2	1,2	2,3
6	Types of budgeting	2	1,2	3
7	A critical perspective - Gender budgeting	2	1,2	3
<b>Unit II</b>	<b>The Economic Survey</b>	<b>16 hours</b>		
8	What is Economic Survey? Definition, Significance, Structure and Components	2	2,3	1
9	Key highlights of economic survey and importance	2	2,3	1
10	Reading Economic Survey Closely: Performance and State of the Economy	2	3,4	1
11	Reading Economic Survey Closely: Macroeconomic overview, Monetary policy and inflation	2	3,4	1
12	Reading Economic Survey Closely: Sectoral Analysis of Agriculture, Industry and Services	2	3,4	1
13	Reading Economic Survey Closely: Environment, Climate Change, Sustainability	2	3,4	1
14	Reading Economic Survey Closely: Social Sector, Employment	2	3,4	1
15	Critical perspectives and debates	2	3,4	1
<b>UNIT III</b>	<b>Union Budget in India</b>	<b>14 hours</b>		
16	Why do we need budget?	2	2,4	2
17	Understand deficits according to the latest Union Budget	2	2,4	2
18	Understanding revenue sources	2	2,4	2
19	Understanding expenditure pattern and locating thrust areas in the latest budget	2	2,4	2
20	Analysis of key areas/sectors with higher/lower shares of expenditure	3	2,4	2
21	Critical perspectives and debates based for inclusive growth and development	3	4,5	2
	<b>Total</b>	<b>45 hours</b>		

### Learning Assessment

Bloom's Level of Cognitive Task		Continuous Learning Assessments (50%)				End Semester Exam (50%)
		CLA-1 (10%)	Mid-1 (15%)	CLA-2 (10%)	Mid-2 (15%)	
Level 1	Remember	60%	40%	30%	20%	50%
	Understand					
Level 2	Apply	40%	40%	50%	40%	50%
	Analyze					
Level 3	Evaluate		20%	20%	40%	
	Create					
Total		100%	100%	100%	100%	100%

### References

1. Ministry of Finance. Economic Survey (latest and previous year)
2. Ministry of Finance. Union Budget (latest and previous year)
3. Bhatia, H.L (2020). *Public Finance*, 30<sup>th</sup> edition. Vikas Publishing House.
4. Relevant newspaper articles for critical understanding

### Recommended Resources

### Other Resources

### Course Designers

1. Boddu Srujana, Assistant Professor, Department of Economics, SRM University – Andhra Pradesh.