

**Savitribai Phule Pune University, Pune**  
**TE (Civil Engineering) 2019 Pattern**  
**(With effect from Academic Year 2021-22)**

**SEMESTER: V**

Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks						Credit					
		Theory	Practical	Tutorial	IN-Sem	End-Sem	TW	PR	OR	Total	TH	TW	PR	OR	TUT	Total
301001	Hydrology and Water Resources Engineering	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301002	Water Supply Engineering	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301003	Design of Steel Structures	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301004	Engineering Economics and Financial Management	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301005	Elective I	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301006	Seminar	--	--	01	--	--	50	--	--	50	--	--	--	--	01	01
301007	Hydrology and Water Resources Engineering Lab	--	02	--	--	--	25	--	--	25	--	01	--	--	--	01
301008	Water Supply Engineering Lab	--	02	--	--	--	--	50	--	50	--	--	01	--	--	01
301009	Design of Steel Structures Lab	--	04	--	--	--	--	--	50	50	--	--	--	02	--	02
301010	Elective I Lab	--	02	--	--	--	25	--	--	25	--	01	--	--	--	01
301011	Audit Course I: Professional Ethics and Etiquettes/ Sustainable Energy Systems	--	--	01	--	GR	--	--	--	GR	--	--	--	--	--	--
<b>Total</b>		<b>15</b>	<b>10</b>	<b>02</b>	<b>150</b>	<b>350</b>	<b>100</b>	<b>50</b>	<b>50</b>	<b>700</b>	<b>15</b>	<b>02</b>	<b>01</b>	<b>02</b>	<b>01</b>	<b>21</b>

**Abbreviations: TH : Theory, TW: Term Work, PR : Practical, OR: Oral, TUT : Tutorial, GR: Grade**

**Elective I: 301005**

SN	Course Code	Course Name
01	301005 a	Advanced Fluid Mechanics and Hydraulic Machines
02	301005 b	Research Methodology and IPR
03	301005 c	Construction Management
04	301005 d	Advanced Concrete Technology
05	301005 e	Matrix Methods of Structural Analysis
06	301005 f	Advanced Mechanics of Structures

**SEMESTER-VI**

Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks						Credit					
		Theory	Practical	Tutorial	IN-Sem	End-Sem	TW	PR	OR	Total	TH	TW	PR	OR	TUT	Total
301012	Waste Water Engineering	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301013	Design of RC Structures	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301014	Remote Sensing and GIS	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301015	Elective II	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301016	Internship	--	--	--	--	--	100	--	--	100	--	04	--	--	--	04
301017	Waste Water Engineering Lab	--	02	--	--	--	--	50	50	--	--	--	01	--	--	01
301018	Design of RC Structures Lab	--	04	--	--	--	--	50	50	--	--	--	02	--	--	02
301019	Remote Sensing and GIS Lab	--	02	--	--	--	50	--	50	--	01	--	--	--	--	01
301020	Elective II Lab	--	02	--	--	--	50	--	50	--	01	--	--	--	--	01
301021	Audit Course II: Leadership and Personality Development/ Industrial Safety	--	--	01	--	GR	--	--	GR	--	--	--	--	--	--	--
<b>Total</b>		<b>12</b>	<b>10</b>	<b>01</b>	<b>120</b>	<b>280</b>	<b>200</b>	<b>--</b>	<b>100</b>	<b>700</b>	<b>12</b>	<b>06</b>	<b>--</b>	<b>03</b>	<b>--</b>	<b>21</b>

**Abbreviations: TH : Theory, TW: Term Work, PR : Practical, OR: Oral and TUT : Tutorial, GR: Grade**

**Elective II: 301015**

S N	Course Code	Course Name
01	301015 a	Advanced Engineering Geology with Rock Mechanics
02	301015 b	Soft Computing Techniques
03	301015 c	Advanced Surveying
04	301015 d	Advanced Geotechnical Engineering
05	301015 e	Architecture and Town Planning
06	301015 f	Solid Waste Management

## Semester I

<b>Elective-I 401 004</b>	<b>Elective-II 401 005</b>
1. Structural Design of Bridges	1. Matrix Methods of Structural Analysis
2. Systems Approach in Civil Engineering	2. Integrated Water Resources Planning and Management
3. Advanced Concrete Technology	3. TQM & MIS in Civil Engineering
4. Architecture and Town Planning	4. Earthquake Engineering
5. Advanced Engineering Geology with Rock Mechanics	5. Advanced Geotechnical Engineering

## Semester-II

<b>Elective-III 401 009</b>	<b>Elective-IV 401 010</b>
1. Advanced Structural Design	1. Construction Management
2. Statistical Analysis and Computational Methods in Civil Engineering	2. Advanced Transportation Engineering
3. Hydropower Engineering	3. Advanced foundation Engineering.
4. Air Pollution and control	4. Coastal Engineering
5. Finite Element Method in Civil Engineering	<b>5. Open Elective</b>
6. Airport and Bridge Engineering	a) Plumbing Engineering
	b) Green Building Technology
	c) Ferrocement Technology
	d) Sub sea Engineering
	e) Geoinformatics



**Savitribai Phule Pune University**  
**Fourth Year of Computer Engineering (2015 Course)**  
**(with effect from 2018-19)**

**Semester I**

Course Code	Course	Teaching Scheme Hours / Week		Examination Scheme and Marks						Credit		
		Theory	Practical	In-Sem	End-Sem	TW	PR	OR/ *PRE	Total	TH/ TUT	PR	
410241	High Performance Computing	04	--	30	70	--	--	--	100	04	--	
410242	Artificial Intelligence and Robotics	03	--	30	70	--	--	--	100	03	--	
410243	Data Analytics	03	--	30	70	--	--	--	100	03	--	
410244	Elective I	03	--	30	70	--	--	--	100	03	--	
410245	Elective II	03	--	30	70	--	--	--	100	03	--	
410246	Laboratory Practice I	--	04	--	--	50	50	--	100	--	02	
410247	Laboratory Practice II	--	04	--	--	50	--	*50	100	--	02	
410248	Project Work Stage I	--	02	--	--	--	--	*50	50	--	02	
<b>Total Credit</b>										<b>16</b>	<b>06</b>	
<b>Total</b>		<b>16</b>	<b>10</b>	<b>150</b>	<b>350</b>	<b>100</b>	<b>50</b>	<b>100</b>	<b>750</b>	<b>22</b>		
410249	Audit Course 5										<b>Grade</b>	
<b>Elective I</b>				<b>Elective II</b>								
410244 (A) Digital Signal Processing				410245 (A) Distributed Systems								
410244 (B) Software Architecture and Design				410245 (B) Software Testing and Quality Assurance								
410244 (C) Pervasive and Ubiquitous Computing				410245 (C) Operations Research								
410244 (D) Data Mining and Warehousing				410245 (D) Mobile Communication								


**410249-Audit Course 5 (AC5) Options:**

- |  |  |
|--|--|
| AC5-I: <u>Entrepreneurship Development</u> | AC5-IV: <u>Industrial Safety and Environment Consciousness</u> |
| AC5-II: <u>Botnet of Things</u>            | AC5-V: <u>Emotional Intelligence</u>                           |
| AC5-III: <u>3D Printing</u>                | AC5-VI: <u>MOOC- Learn New Skills</u>                          |

**Abbreviations:**

TW: Term Work    TH: Theory    OR: Oral    PR: Practical  
 Sem: Semester    PRE: Project/ Mini-Project Presentation

Syllabus for Fourth Year of Computer Engineering  
 Genba Sopanrao Maza College of Engg.  
 25/1/13, B. S. Lewadi, Pune - 411 043

  
 Head of Department  
 COMPUTER ENGINEERING  
 Genba Sopanrao Maza College of Engineering  
 B. S. Lewadi, Pune - 411 043

#4/87

**Savitribai Phule Pune University**  
**Fourth Year of Computer Engineering (2015 Course)**  
**(with effect from 2018-19)**

**Semester II**

Course Code	Course	Teaching Scheme Hours / Week		Examination Scheme and Marks						Credit		
		Theory	Practical	In-Sem	End-Sem	TW	PR	OR/ *PRE	Total	TH/ TUT	PR	
410250	Machine Learning	03	--	30	70	--	--	--	100	03	--	
410251	Information and Cyber Security	03	--	30	70	--	--	--	100	03	--	
410252	Elective III	03	--	30	70	--	--	--	100	03	--	
410253	Elective IV	03	--	30	70	--	--	--	100	03	--	
410254	Laboratory Practice III	--	04	--	--	50	50	--	100	--	02	
410255	Laboratory Practice IV	--	04	--	--	50	--	*50	100	--	02	
410256	Project Work Stage II	--	06	--	--	100	--	*50	150	--	06	
<b>Total</b>		<b>12</b>	<b>14</b>	<b>120</b>	<b>280</b>	<b>200</b>	<b>50</b>	<b>100</b>	<b>750</b>	<b>12</b>	<b>10</b>	
<b>Total Credit</b>										<b>22</b>		
410257	Audit Course 6										<b>Grade</b>	
<b>Elective III</b>						<b>Elective IV</b>						
410252 (A) <u>Advanced Digital Signal Processing</u>						410253 (A) <u>Software Defined Networks</u>						
410252 (B) <u>Compilers</u>						410253 (B) <u>Human Computer Interface</u>						
410252 (C) <u>Embedded and Real Time Operating System</u>						410253 (C) <u>Cloud Computing</u>						
410252 (D) <u>Soft Computing and Optimization Algorithms</u>						410253 (D) <u>Open Elective</u>						

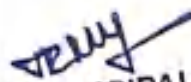
**410259-Audit Course 6 (AC6) Options:**

AC6-I: Business IntelligenceAC6-IV: Usability EngineeringAC6-II: GamificationAC6-V: Conversational InterfacesAC6-III: Quantum ComputingAC6-VI: MOOC- Learn New Skills

**Abbreviations:**

TW: Term Work    TH: Theory    OR: Oral    PR: Practical

Sem: Semester    PRE: Project/ Mini-Project Presentation

  
**PRINCIPAL**

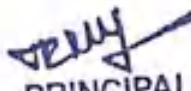
Genba Sopanrao Moze College of Engg  
 25/1/3, Bajewadi, Pune - 411 045




**Savitribai Phule Pune University**  
**Third Year of Computer Engineering (2019 Course)**  
 (With effect from Academic Year 2021-22)

**Semester V**

Course Code	Course Name	Teaching Scheme (Hours/week)			Examination Scheme and Marks						Credit Scheme				
		Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Term work	Practical	Oral	Total	Lecture	Practical	Tutorial	Total	
310241	<u>Database Management Systems</u>	03	-	-	30	70	-	-	-	100	03	-	-	03	
310242	<u>Theory of Computation</u>	03	-	-	30	70	-	-	-	100	03	-	-	03	
310243	<u>Systems Programming and Operating System</u>	03	-	-	30	70	-	-	-	100	03	-	-	03	
310244	<u>Computer Networks and Security</u>	03	-	-	30	70	-	-	-	100	03	-	-	03	
310245	<b>Elective I</b>	03	-	-	30	70	-	-	-	100	03	-	-	03	
310246	<u>Database Management Systems Laboratory</u>	-	04	-	-	-	25	25	-	50	-	02	-	02	
310247	<u>Computer Networks and Security Laboratory</u>	-	02	-	-	-	25	-	25	50	-	01	-	01	
310248	<u>Laboratory Practice I</u>	-	04	-	-	-	25	25	-	50	-	02	-	02	
310249	<u>Seminar and Technical Communication</u>	-	01	-	-	-	50	-	-	50	-	01	-	01	
<b>Total</b>		<b>15</b>	<b>11</b>	<b>-</b>	<b>150</b>	<b>350</b>	<b>125</b>	<b>50</b>	<b>25</b>	<b>700</b>	<b>15</b>	<b>06</b>	<b>-</b>	<b>21</b>	
310250	<u>Audit Course 5</u>											<b>Grade</b>			
<b>Total Credit</b>											<b>15</b>	<b>06</b>	<b>-</b>	<b>21</b>	
<b>Elective I</b>						<b>Audit Course 5</b>									
<ul style="list-style-type: none"> <li>• <u>Internet of Things and Embedded Systems</u></li> <li>• <u>Human Computer Interface</u></li> <li>• <u>Distributed Systems</u></li> <li>• <b><u>Software Project Management</u></b></li> </ul>						<ul style="list-style-type: none"> <li>• Cyber Security</li> <li>• Professional Ethics and Etiquettes</li> <li>• MOOC- Learn New Skills</li> <li>• Engineering Economics</li> <li>• Foreign Language</li> </ul>									
<b>Laboratory Practice I</b>															
Assignments from Systems Programming and Operating System and Elective I															

  
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**Savitribai Phule Pune University**  
**Third Year of Computer Engineering (2019 Course)**  
 (With effect from Academic Year 2021-22)

**Semester VI**

Course Code	Course Name	Teaching Scheme (Hours/week)			Examination Scheme and Marks						Credit Scheme			
		Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Term work	Practical	Oral	Total	Lecture	Practical	Tutorial	Total
310251	<u>Data Science and Big Data Analytics</u>	03	-	-	30	70	-	-	-	100	03	-	-	03
310252	<u>Web Technology</u>	03	-	-	30	70	-	-	-	100	03	-	-	03
310253	<u>Artificial Intelligence</u>	03	-	-	30	70	-	-	-	100	03	-	-	03
310254	<b>Elective II</b>	03	-	-	30	70	-	-	-	100	03	-	-	03
310255	<u>Internship**</u>	-	**	-	-	-	100	**	-	100	-	04	**	04
310256	<u>Data Science and Big Data Analytics Laboratory</u>	-	04	-	-	-	50	25	-	75	-	02	-	02
310257	<u>Web Technology Laboratory</u>	-	02	-	-	-	25	-	25	50	-	01	-	01
310258	<u>Laboratory Practice II</u>	-	04	-	-	-	50	25	-	75	-	02	-	02
<b>Total</b>											<b>12</b>	<b>09</b>	<b>-</b>	<b>21</b>
<b>Total</b>		<b>12</b>	<b>10</b>	<b>-</b>	<b>120</b>	<b>280</b>	<b>225</b>	<b>50</b>	<b>25</b>	<b>700</b>	<b>12</b>	<b>05</b>	<b>-</b>	<b>21</b>
310259	<u>Audit Course 6</u>												<b>Grade</b>	
<b>Elective II</b>					<b>Audit Course 6</b>									
<ul style="list-style-type: none"> <li>• <u>Information Security</u></li> <li>• <u>Augmented and Virtual Reality</u></li> <li>• <b><u>Cloud Computing</u></b></li> <li>• <u>Software Modeling and Architectures</u></li> </ul>					<ul style="list-style-type: none"> <li>• Digital and Social Media Marketing</li> <li>• Sustainable Energy Systems</li> <li>• Leadership and Personality Development</li> <li>• Foreign Language</li> <li>• MOOC- Learn New Skills</li> </ul>									
<b>Laboratory Practice II:</b>														
Assignments from Artificial Intelligence and Elective II.														
<b>** Internship:</b>														
Internship guidelines are provided in course curriculum sheet.														

  
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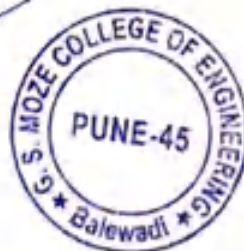
**Savitribai Phule Pune University, Pune**  
**T.E. (Electronics & Telecommunication Engineering) 2019 Course**  
 (With effect from Academic Year 2021-22)


**Semester-V**

Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks					Credit				
		Theory	Practical	Tutorial	In-Sem	End-Sem	TW	PR	OR	Total	TH	PR	TUT	Total
304181	Digital Communication	03	-	-	30	70	-	-	-	100	03	-	-	03
304182	Electromagnetic Field Theory	03	-	01	30	70	25	-	-	125	03	-	01	04
304183	Database Management	03	-	-	30	70	-	-	-	100	03	-	-	03
304184	Microcontrollers	03	-	-	30	70	-	-	-	100	03	-	-	03
304185	Elective - I	03	-	-	30	70	-	-	-	100	03	-	-	03
304186	Digital Communication Lab	-	02	-	-	-	-	50	-	50	-	01	-	01
304187	Database Management Lab	-	02	-	-	-	-	-	25	25	-	01	-	01
304188	Microcontroller Lab	-	02	-	-	-	-	50	-	50	-	01	-	01
304189	Elective I Lab	-	02	-	-	-	-	25	-	25	-	01	-	01
304190	Skill Development	-	02	-	-	-	25	-	-	25	-	01	-	01
304191A	Mandatory Audit Course 5*	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>		<b>15</b>	<b>10</b>	<b>01</b>	<b>150</b>	<b>350</b>	<b>50</b>	<b>125</b>	<b>25</b>	<b>700</b>				
<b>Total Credit</b>											<b>15</b>	<b>05</b>	<b>01</b>	<b>21</b>

**Elective - I**

- 1) Digital Signal Processing
- 2) Electronic Measurements
- 3) Fundamentals of JAVA Programming
- 4) **Computer Networks** ✓



  
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 Balawadi, Pune - 411 046



**Savitribai Phule Pune University, Pune**  
**T.E. (Electronics & Telecommunication Engineering) 2019 Course**  
 (With effect from Academic Year 2021-22)

**Semester-VI**

Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks					Credit													
		Theory	Practical	Tutorial	In-Sem	End-Sem	TW	PR	OR	Total	TH	PR	TUT	Total									
304192	Cellular Networks	03	-	-	30	70	-	-	-	100	03	-	-	03									
304193	Project Management	03	-	-	30	70	-	-	-	100	03	-	-	03									
304194	Power Devices & Circuits	03	-	-	30	70	-	-	-	100	03	-	-	03									
304195	<b>Elective-II</b>	03	-	-	30	70	-	-	-	100	03	-	-	03									
304196	Cellular Networks Lab	-	02	-	-	-	-	-	50	50	-	01	-	01									
304197	Power Devices & Circuits Lab	-	02	-	-	-	-	50	-	50	-	01	-	01									
304198	<b>Elective-II Lab</b>	-	02	-	-	-	-	25	-	25	-	01	-	01									
304199	Internship**	-	-	-	-	100	-	-	-	100	-	-	04	04									
304200	Mini Project	-	04	-	-	25	-	50	-	75	-	02	-	02									
304191 B	Mandatory Audit Course 6 <sup>th</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-									
<b>Total</b>											<b>12</b>	<b>10</b>	<b>00</b>	<b>120</b>	<b>280</b>	<b>125</b>	<b>75</b>	<b>100</b>	<b>700</b>				
<b>Total Credit</b>											<b>12</b>	<b>05</b>	<b>04</b>	<b>21</b>									

**Abbreviations:**

In-Sem: In semester

End-Sem: End semester

TH: Theory

TW: Term Work

PR: Practical

OR: Oral

TUT: Tutorial

Note: Students of T.E. (Electronics & Telecommunications) have to opt any one of the audit course from the list of audit courses prescribed by BoS (Electronics & Telecommunications Engineering)

**Elective -II**

- 1) Digital Image Processing
- 2) Sensors in Automation
- 3) Advanced JAVA Programming
- 4) Embedded Processors
- 5) **Network Security** ✓



Head of the Department  
 Electronics & Telecommunication Engg.  
 Somanrao Moze College of Engg  
 Belwadi, Pune - 411 046.

**Savitribai Phule Pune University**  
**Final Year E&TC Engineering (2015 Course)**  
 (With effect from Academic Year 2018-19)

Semester I												
Course Code	Course	Teaching Scheme Hours / Week			Semester Examination Scheme of Marks						Credits	
		Theor y	Tut	Pract	In-Sem	End-Sem	TW	PR	OR	Total	TH/TW	PR+OR
404181	VLSI Design & Technology	3	--	--	30	70	--	--	--	100	3	--
404182	Computer Networks & Security	4	--	--	30	70	--	--	--	100	4	--
404183	Radiation & Microwave Techniques	3	--	--	30	70	--	--	--	100	3	--
404184	<b>Elective I</b>	3	--	--	30	70	--	--	--	100	3	--
404185	<b>Elective II</b>	3	--	--	30	70	--	--	--	100	3	--
404186	Lab Practice -I (CNS+ RMT)	--	--	4	--	--	50	--	50	100	--	2
404187	Lab Practice -II ( VLSI + Elective I)	--	--	4	--	--	50	50	--	100	--	2
404188	Project Stage I	-	2	--	--	--	--	--	50	50	--	2
	<b>Audit Course 5</b>	--	--	--	--	--	--	--	--	--	--	--
	<b>Total</b>	16	2	8	150	350	100	50	100	750	16	6
<b>Total Credits</b>											<b>22</b>	
<b>Elective I</b>		<b>Elective II</b>					<b>Audit Course 5</b>					
1. Digital Image and Video Processing 2. Industrial Drives and Control 3. Embedded Systems & RTOS 4. Internet of Things		1. Wavelets 2. <b>Electronics Product Design</b> 3. Optimization Techniques 4. Artificial Intelligence 5. Electronics in agriculture					1. Green Energy 2. Human Behaviour					

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 Head of the Department  
 Electronics & Telecommunication Engineering  
 Savitribai Phule Pune University  
 Kharadi, Pune - 411 004



**Final Year E&TC Engineering (2015 Course)**  
(With effect from Academic Year 2018-19)

Semester II												
Course Code	Course	Teaching Scheme			Semester Examination Scheme of						Credit	
		Hours / Week			Marks						TH/TW	PR+OR
Theory	Tut	Pract	In-Sem	End-Sem	TW	PR	OR	Total				
404189	Mobile Communication	3	--	--	30	70	--	--	--	100	3	--
404190	Broadband Communication Systems	4	--	--	30	70	--	--	--	100	4	--
404191	Elective III	3	--	--	30	70	--	--	--	100	3	--
404192	Elective IV	3	--	--	30	70	--	--	--	100	3	--
404193	Lab Practice –III (MC+BCS)	--	--	4	--	--	50	50	--	100	--	2
404194	Lab Practice –IV ( Elective III)	--	--	2	--	--	--	--	50	50	--	1
404195	Project Stage II	--	6	-	--	--	150	--	50	200	--	6
	<b>Audit Course 6</b>	--	--	--	--	--	--	--	--	--		
<b>Total</b>		13	6	6	120	280	200	50	100	750	13	9
<b>Total Credits</b>											<b>22</b>	
<b>Elective III</b>				<b>Elective-IV</b>				<b>Audit Course 6</b>				
1. Machine Learning 2. PLC s and Automation 3. Audio and Speech Processing 4. Software Defined Radio 5. Audio Video Engineering				1. Robotics 2. Biomedical Electronics 3. Wireless Sensor Networks 4. Renewable Energy Systems 5. Open Elective*				1. Team Building, Leadership and Fitness 2. Environmental issues and Disaster Management				

\*Any one course from the list of Elective IV of computer/IT/Electrical/Instrumentation or Institute can offer elective IV based on any industry need with prior approval from BoS(Electronics & Telecommunication). Repetition of course or topics should be avoided.



**Savitribal Phule Pune University**  
**Third Year of Information Technology (2019 course)**  
**(With effect from Academic Year 2021-22)**

**Semester-V**

Course Code	Course Name	Teaching Scheme (Hours/ week)			Examination Scheme and Marks						Credit Scheme			
		Theory	Practical	Tutorial	Mid-Sem	End-Sem	Term work	Practical	Oral	Total	Lecture	Practical	Tutorial	Total
314441	Theory of Computation	03	-	-	30	70	-	-	-	100	3	-	-	3
314442	Operating Systems	03	-	-	30	70	-	-	-	100	3	-	-	3
314443	Machine Learning	03	-	-	30	70	-	-	-	100	3	-	-	3
314444	Human Computer Interaction	03	-	-	30	70	-	-	-	100	3	-	-	3
314445	Elective-I	03	-	-	30	70	-	-	-	100	3	-	-	3
314446	Operating Systems Lab	-	04	-	-	-	25	25	-	50	-	2	-	2
314447	Human Computer Interaction- Lab	-	02	-	-	-	-	50	-	50	-	1	-	1
314448	Laboratory Practice-I	-	04	-	-	-	25	25	-	50	-	2	-	2
314449	Seminar	-	01	-	-	-	50	-	-	50	-	1	-	1
314450	Audit Course 5	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Credit</b>											<b>15</b>	<b>06</b>	<b>-</b>	<b>21</b>
<b>Total</b>		<b>15</b>	<b>11</b>	<b>-</b>	<b>150</b>	<b>350</b>	<b>100</b>	<b>50</b>	<b>50</b>	<b>700</b>	<b>15</b>	<b>06</b>	<b>-</b>	<b>21</b>

Abbreviations: TH: Theory, TW: Term Work, PR: Practical, OR: Oral, TUT: Tutorial

Elective-I:

- 314445A- Design and Analysis of Algorithm
- 314445B- Advanced Database and Management System
- 314445C- Design Thinking
- 314445D- Internet of Things

Laboratory Practice-I:

Assignment from Machine Learning and Elective I

Audit Course 5:

- 314450A-Banking and Insurance
- 314450B-Startup Ecosystems
- 314450C- Foreign Language-(Japanese Language- III )

Note: Students of T.E. (Information Technology) can opt any one of the audit course from the list of audit courses prescribed by BoS (Information Technology)



**Savitribai Phule Pune University**  
**Third Year of Information Technology (2019 Course)**  
**(With effect from Academic Year 2021-22)**

**Semester-VI**

Course Code	Course Name	Teaching Scheme (Hours/week)			Examination Scheme and Marks						Credit Scheme			
		Lecture	Practical	Tutorial	Mid-Sem	Ehd-Sem	Term Work	Practical	Oral	Total	Lecture	Practical	Tutorial	Total
314451	Computer Networks & Security	03	-	-	30	70	-	-	-	100	03			03
314452	Data Science and Big Data Analytics	03	-	-	30	70	-	-	-	100	03			03
314453	Web Application Development	03	-	-	30	70	-	-	-	100	03			03
314454	Elective-II	03	-	-	30	70	-	-	-	100	03			03
314455	Internship	-	04	-	-	-	100	-	-	100		04		04
314456	Computer Networks & Security-Lab	-	04	-	-	-	25	-	50	75		02		02
314457	DS & BDA-Lab	-	02	-	-	-	25	25	-	50		01		01
314458	Laboratory Practice-II	-	04	-	-	-	50	25	-	75		02		02
314459	Audit Course 6	-	-	-	-	-	-	-	-	-		-	-	-
<b>Total</b>											<b>12</b>	<b>09</b>	<b>-</b>	<b>21</b>
<b>Total</b>		<b>12</b>	<b>14</b>	<b>-</b>	<b>120</b>	<b>280</b>	<b>200</b>	<b>50</b>	<b>50</b>	<b>700</b>	<b>12</b>	<b>09</b>	<b>-</b>	<b>21</b>

Abbreviations: TH: Theory, TW: Term Work, PR: Practical, OR: Oral, TUT: Tutorial

Elective-II:

314454A- Artificial Intelligence

314454B- Cyber Security

314454C- Cloud Computing

314454D- Software Modeling and Design

Laboratory Practice-II:

Assignments from Web Application Development and Elective-II.

Note: Students of T.E. (Information Technology) can opt any one of the audit course from the list of audit courses prescribed by BoS (Information Technology)

Audit Course 6:

314459A - Green and Unconventional Energy

314459B - Leadership and Personality Development

314459C- Foreign Language-(Japanese Language- IV)



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(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated  
to Savitribai Phule Pune University)

Website: [www.gsmozecoe.co.in](http://www.gsmozecoe.co.in) Email: [gsmoze@yahoo.co.in](mailto:gsmoze@yahoo.co.in)

**Department of MBA**

SPPU - MBA Revised Curriculum 2019 CBCGS & OBE Pattern

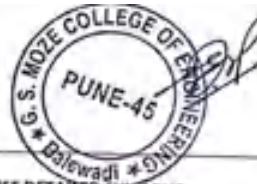
“EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE”

**GENBA SOPANRAO MOZE COLLEGE OF  
ENGINEERING  
(MBA DEPARTMENT)**



1st Year  
Semester I- MBA  
Detailed Syllabus





ANNEXURE II – COURSE WISE DETAILED SYLLABUS

Generic Core Courses (Compulsory) – Semester I & II

Semester I		101 – Managerial Accounting
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO101.1	REMEMBERING	DESCRIBE the basic concepts related to Accounting, Financial Statements, Cost Accounting, Marginal Costing, Budgetary Control and Standard Costing.
CO101.2	UNDERSTANDING	EXPLAIN in detail, all the theoretical concepts taught through the syllabus.
CO101.3	APPLYING	PERFORM all the necessary calculations through the relevant numerical problems.
CO101.4	ANALYSING	ANALYSE the situation and decide the key financial as well as non-financial elements involved in the situation.
CO101.5	EVALUATING	EVALUATE the financial impact of the decision.

- 1. Basic Concepts:** Forms of Business Organization. Meaning and Importance of Accounting in Business Organization, Basic concepts and terms used in accounting, Capital & Revenue Expenditure, Capital & Revenue Receipts, Users of Accounting Information. Accounting Concepts and Conventions, Fundamental Accounting Equation, Journal, Ledger and Trial Balance. (4+2)
- 2. Financial Statements:** Meaning of Financial Statements, Importance and Objectives of Financial Statements. Preparation of Final Accounts of sole proprietary firm. (7 + 2)
- 3. Cost Accounting:** Basic Concepts of Cost Accounting, Objectives, Importance and Advantages of Cost Accounting, Cost Centre, Cost Unit, Elements of Cost, Classification and Analysis of Costs, Relevant and Irrelevant Costs, Differential Costs, Sunk Cost, Opportunity Cost, Preparation of Cost Sheet. (8 + 2)
- 4. Short Term Business Decision Techniques – Marginal Costing:** Meaning, Principles, Advantages and Limitations, Contribution, P/V Ratio, Break-Even Point (BEP), Cost Volume Profit (CVP) Analysis, Short Term Business Decisions- Product Mix Decisions, Make or Buy (Outsourcing) Decisions, Accept or Reject Special Order Decisions, Shutting Down Decisions. (8 + 2)
- 5. Exercising Control – Budgetary Control & Standard Costing:** **Budgetary Control:** Meaning of Budget and Budgeting, Importance, Advantages and Disadvantages, Functional Budgets-Raw Material Purchase & Procurement Budget, Cash Budget and Flexible Budget. **Standard Costing:** Meaning, Importance, Advantages and Disadvantages, Cost Variance Analysis. Material Variances-Material Cost Variance, Material Rate Variance, Material Usage Variance, Material Mix Variance and Material Yield Variance. Labour Variances -Labour Cost Variance, Labour Rate Variance, Labour Efficiency Variance, Labour Mix Variance, Labour Idle Time Variance and Labour Yield Variance. (8 + 2)

Note: Numerical Problems will be asked on the following –

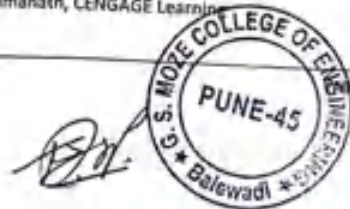
1. Final Accounts of Sole Proprietary Firm
2. Preparation of Cost Sheet
3. Marginal Costing and Short-Term Business Decisions
4. Raw Material Purchase & Procurement Budget, Cash Budget, Flexible Budget
5. Material Variances and Labour Variances

Suggested Text Books:

1. Management Accounting, Khan and Jain, Tata McGraw Hill
2. Fundamentals of Management Accounting, H. V. Jhamb
3. Managerial Accounting, Dr. Mahesh Abale and Dr. Shriprakash Soni
4. Management Accounting, Dr. Mahesh Kulkarni

Suggested Reference Books:

1. Financial Cost and Management Accounting, P. Periasamy
2. Financial Accounting for Management, Shankarnarayanan Ramanath, CENGAGE Learning
3. Accounting For Management, S. N. Maheshwari



4. Management Accounting, MadhuVij
5. Fundamentals of Management Accounting, H. V. Jhamb
6. Cost and Management Accounting, M. N. Arora
7. Financial Accounting for Managers, Sanjay Dhmiya, Pearson Publications
8. Management Accounting, Mr. Anthony Atkinson, Robert Kaplan, Pearson
9. Accounting For Management, Jawarhar Lal
10. Accounting, Shukla Grewal
11. Management Accounting, Ravi Kishore
12. Accounting for Managers, Dearden and Bhattacharya

Semester I		102 - Organizational Behaviour
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO102.1	REMEMBERING	DESCRIBE the major theories, concepts, terms, models, frameworks and research findings in the field of organizational behavior.
CO102.2	UNDERSTANDING	EXPLAIN the implications of organizational behavior from the perspectives of employees, managers, leaders and the organization.
CO102.3	APPLYING	MAKE USE OF the Theories, Models, Principles and Frameworks of organizational behavior in specific organizational settings.
CO102.4	ANALYSING	DECONSTRUCT the role of individual, groups, managers and leaders in influencing how people behave and in influencing organizational culture at large.
CO102.5	EVALUATING	FORMULATE approaches to reorient individual, team, managerial and leadership behaviour in order to achieve organizational goals.
CO102.6	CREATING	ELABORATE UPON the challenges in shaping organizational behavior, organizational culture and organizational change.

1. **Fundamentals of OB:** Evolution of management thought, five functions of management, Definition, scope and importance of OB, Relationship between OB and the individual, Evolution of OB, Models of OB (Autocratic, Custodial, Supportive, Collegial & SDBC), Limitations of OB. **Values, Attitudes and Emotions:** Introduction, Values, Attitudes, Definition and Concept of Emotions, Emotional Intelligence - Fundamentals of Emotional Intelligence, The Emotional Competence Framework, Benefits of Emotional Intelligence, difference between EQ and IQ. **Personality & Attitude:** Definition Personality, importance of personality in Performance, The Myers-Briggs Type Indicator and The Big Five personality model, Johari Window, Transaction Analysis, Definition Attitude Importance of attitude in an organization, Right Attitude, Components of attitude, Relationship between behavior and attitude. (7+2)
2. **Perception:** Meaning and concept of perception, Factors influencing perception, Selective perception, Attribution theory, Perceptual process, Social perception (stereotyping and halo effect). **Motivation:** Definition & Concept of Motive & Motivation, The Content Theories of Motivation (Maslow's Need Hierarchy & Herzberg's Two Factor model Theory), The Process Theories (Vroom's expectancy Theory & Porter Lawler model), Contemporary Theories- Equity Theory of Work Motivation. (8+2)
3. **Group and Team Dynamics:** The Meaning of Group & Group behavior & Group Dynamics, Types of Groups, The Five -Stage Model of Group Development Team Effectiveness & Team Building. **Leadership:** Introduction, Managers V/s Leaders. Overview of Leadership- Traits and Types, Theories of Leadership.- Trait and Behavioral Theories. (8+2)
4. **Conflict Management** – Definition and Meaning, Sources of Conflict, Types of Conflict, Conflict Management Approaches. **Organizational Culture:** Meaning and Nature of Organization Culture - Origin of Organization Culture, Functions of Organization Culture, Types of Culture, Creating and Maintaining Organization Culture, Managing Cultural Diversity. (7+2)
5. **Stress at workplace:** Work Stressors – Prevention and Management of stress – Balancing work and Life, workplace spirituality. **Organizational Change:** Meaning, definition & Nature of Organizational Change, Types of Organizational change, Forces that acts as stimulants to change, Kurt Lewin's- Three step model, How to overcome the Resistance to Change, Methods of Implementing Organizational Change, Developing a Learning Organization. (5+2)

**SPPU - MBA Revised Curriculum 2019 CBCSS & OBE Pattern**

pricing, Cyclical pricing, Penetration Pricing, Price Leadership, Price Skimming, Transfer pricing, Price Determination under Perfect Competition- Introduction, Market and Market Structure, Perfect Competition, Price-Output Determination under Perfect Competition, Short-run Industry Equilibrium under Perfect Competition, Short-run Firm Equilibrium under Perfect Competition, Long-run Industry Equilibrium under Perfect Competition, Long-run Firm Equilibrium under Perfect Competition, Pricing Under Imperfect Competition- Introduction, Monopoly, Price Discrimination under Monopoly, Bilateral Monopoly, Monopolistic Competition, Oligopoly, Collective Oligopoly and Price Leadership, Pricing Power, Duopoly, Industry Analysis, Profit Policy: Break Even analysis, Profit Forecasting, Need for Government Intervention in Markets, Price Controls, Support Price, Prevention and Control of Monopolies, System of Dual Price. [114]

5. Consumption Function and Investment Function: Introduction, Consumption Function, Investment Function, Marginal efficiency of capital and business expectations, Multiplier, Accelerator, Business Cycle: Introduction, Meaning and Features, Theories of Business Cycles, Measures to Control Business Cycles, Business Cycles and Business Doctrines. [74]

**Suggested Text Books:**

1. Managerial Economics, Peterson, Lewis, Sudhir Jain, Pearson, Prentice Hall
2. Managerial Economics, D. Salvatore, McGraw Hill, New Delhi.
3. Managerial Economics, Pearson and Lewis, Prentice Hall, New Delhi
4. Managerial Economics, G.S. Gupta, T M H, New Delhi.
5. Managerial Economics, Motw, Paul and Gupta, T M H, New Delhi.

**Suggested Reference Books:**

1. Managerial Economics, Horras and Marjot, Tata McGraw Hill
2. Managerial Economics - Analysis, Problems and Cases, P.L. Mehta, Sultan Chahal Sons, New Delhi.
3. Managerial Economics, Vashnary and Maheshwari, Sultan Chahal and Sons, New Delhi.
4. Managerial Economics, D.M. Mirkan
5. Managerial Economics, Joel Dean, Prentice Hall, USA.
6. Managerial Economics by N.L. Anuja, S Chand & Co. New Delhi.

Semester I		104 - Business Research Methods
3-Credits	LTP: 2:1:1	Compulsory Generic Core Course

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

CO#	COGNITIVE ASPECTS	COURSE OUTCOMES
CO104.1	REMEMBERING	DEFINE various concepts & terms associated with scientific business research.
CO104.2	UNDERSTANDING	EXPLAIN the terms and concepts used in all aspects of scientific business research.
CO104.3	APPLYING	MAKE USE OF scientific principles of research to SOLVE contemporary business research problems.
CO104.4	ANALYSING	EXAMINE the various facets of a research problem and ELABORATE the relevant aspects of the research process from a data driven decision perspective.
CO104.5	EVALUATING	JUDGE the suitability of alternative research designs, sampling designs, data collection instruments and data analysis options in the context of a given real-life business research problem from a data driven decision perspective.
CO104.6	CREATING	FORMULATE alternative research designs, sampling designs, data collection instruments, testable hypotheses, data analysis strategies and research reports to address real-life business research problems.

**1. Foundations of Research:** Definition of Research, Need of business research, Characteristics of scientific research method, Typical Research applications in business and management. Questions in Research: Formulation of Research Problem – Management Question – Research Question – Investigation Question. The process of business research: Literature review - Concepts and theories - Research questions - Sampling - Data collection - Data analysis - Writing up - The iterative nature of business research process, Elements of a Research Proposal. Practical considerations: Values – researcher & organization. Ethical principles - Harm to participants, Lack of informed consent, Invasion of privacy,



Note: Evolution of Management thought to OB and functions of management to be covered in brief as a background interface to the subject only

**Suggested Text Books:**

1. Organizational Behaviour, Robbins
2. Organizational Behaviour, Nelson & Quick
3. Organizational Behaviour, Fred Luthans
4. Organizational Behaviour, Stephen Robbins, Timothy Judge, Mahatma Vaish
5. Organizational Behaviour, M N Mishra
6. Organizational Behaviour, K Ashwathappa

**Suggested Reference Books:**

1. Understanding OB, Wiley Perook
2. Change & Knowledge Management, Jawahar, Ranjeda and Shobha Murthi
3. Human Resource Management, Momo, CENGAGE Learning

Semester I		200 -- Economic Analysis for Business Decisions
3 Credits	LSP: 2:1:1	Compulsory Generic Core Course

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO100.1	REMEMBERING	DEFINE the key terms in micro-economics.
CO100.2	UNDERSTANDING	EXPLAIN the key terms in micro-economics, from a managerial perspective.
CO100.3	APPLYING	IDENTIFY the various issues in an economics context and DEMONSTRATE their significance from the perspective of business decision making.
CO100.4	ANALYSING	EXAMINE the inter-relationships between various facets of micro-economics from the perspective of a consumer, firm, industry, market, competition and business cycles.
CO100.5	EVALUATING	DEVELOP critical thinking based on principles of micro-economics for informed business decision making.
CO100.6	CREATING	ANTICIPATE how other firms in an industry and competitors will respond to economic decisions made by a business, and how to incorporate these responses into their own decisions.

1. **Managerial Economics:** Concept of Economy, Economics, Microeconomics, Macroeconomics. Nature and Scope of Managerial Economics, Managerial Economics and decision-making. Concept of Firm, Market, Objectives of Firm: Profit Maximization Model, Economist Theory of the Firm, Quist and March's Behavior Theory, Meier's Growth Maximization Model, Baumol's Static and Dynamic Models, Williamson's Managerial Decision-making Theory. (5+1)

2. **Utility & Demand Analysis:** Utility – Meaning, Utility analysis, Measurement of utility, Law of diminishing marginal utility, Indifference curve, Consumer's equilibrium – Budget line and Consumer surplus. Demand - Concept of Demand, Types of Demand, Determinants of Demand, Law of Demand, Elasticity of Demand, Exceptions to Law of Demand, Uses of the concept of elasticity. Forecasting: Introduction, Meaning and Forecasting, Level of Demand Forecasting, Criteria for Good Demand Forecasting, Methods of Demand Forecasting, Survey Methods, Statistical Methods, Qualitative Methods, Demand Forecasting for a New Product. (Demand Forecasting methods - Conceptual treatment only numericals not expected) (1+3)

3. **Supply & Market Equilibrium:** Introduction, Meaning of Supply and Law of Supply, Exceptions to the Law of Supply, Changes or Shifts in Supply, Elasticity of supply, Factors Determining Elasticity of Supply, Practical Importance, Market Equilibrium and Changes in Market Equilibrium. Production Analysis: Introduction, Meaning of Production and Production Function, Cost of Production. Cost Analysis: Private costs and Social Costs, Accounting Costs and Economic costs, Short run and Long run costs, Economies of scale, Cost-Output Relationship - Cost Function, Cost-Output Relationships in the Short Run, and Cost-Output Relationships in the Long Run. (1+1)

4. **Revenue Analysis and Pricing Policies:** Introduction, Revenue Meaning and Types, Relationship between Revenue and Price Elasticity of Demand, Pricing Policies, Objectives of Pricing Policies, Cost plus pricing, Marginal cost

Deception, Reciprocity and trust, Affiliation and conflicts of interest. Legal considerations - Data management, Copyright. [6+1]

**2. Research Design:** Concept, Features of a robust research design. Exploratory, Descriptive, Quasi Experimental, Experimental research designs, Concept of Cause and Effect, Difference between Correlation and causation. Types of Variables – Independent, Dependent, concomitant, mediating, moderating, extraneous variables, Basic knowledge of Treatment & Control group, Case study design. Cross-sectional and Longitudinal designs, Qualitative and Quantitative research approaches, Pros and Cons of various designs, choice of a research design. **Hypothesis:** Definition, research Hypothesis, Statistical hypothesis, Null hypothesis, Alternative Hypothesis, Directional Hypothesis, Non-directional hypothesis. Qualities of a good Hypothesis, Framing Null Hypothesis & Alternative Hypothesis. Concept of Hypothesis Testing - Logic & Importance. [7+1]

**3. Data & Measurement:** Meaning of data, Need for data. **Secondary Data:** Definition, Sources, Characteristics, Advantages and disadvantages over primary data, Quality of secondary data - Sufficiency, adequacy, reliability and consistency. **Primary Data:** Definition, Advantages and disadvantages over secondary data. **Measurement:** Concept of measurement - Nominal, Ordinal, Interval, Ratio. **Attitude Scaling Techniques:** Concept of Scale – Rating Scales viz. Likert Scales, Semantic Differential Scales, Constant Sum Scales, Graphic Rating Scales – Ranking Scales – Paired Comparison & Forced Ranking - Concept and Application. **Questionnaire:** Questionnaire Construction - Personal interviews, Telephonic survey Interviewing, Online questionnaire tools. [8+1]

**4. Sampling: Basic Concepts:** Defining the Universe, Concepts of Statistical Population, Sample, Characteristics of a good sample. Sampling Frame, determining the sample frame, Sampling errors, Non Sampling errors, Methods to reduce the errors, Sample Size constraints, Non Response. **Probability Sample:** Simple Random Sample, Systematic Sample, Stratified Random Sample, Area Sampling & Cluster Sampling. **Non Probability Sample:** Judgment Sampling, Convenience Sampling, Purposive Sampling, Quota Sampling & Snowballing Sampling methods. **Determining size of the sample:** Practical considerations in sampling and sample size, [sample size determination formulae and numericals not expected] [9+1]

**5. Data Analysis & Report Writing: Data Analysis:** Cleaning of Data, Editing, Coding, Tabular representation of data, frequency tables. Univariate analysis - Interpretation of Mean, Median Mode; Standard deviation, Coefficient of Variation. **Graphical Representation of Data:** Appropriate Usage of Bar charts, Pie charts, Line charts, Histograms. **Bivariate Analysis:** Cross tabulations, Bivariate Correlation Analysis - meaning & types of correlation, Karl Person's coefficient of correlation and spearman's rank correlation, Chi-square test including testing hypothesis of association, association of attributes. **Linear Regression Analysis:** Meaning of regression, Purpose and use, Linear regression; Interpretation of regression co-efficient, Applications in business scenarios. **Test of Significance:** Small sample tests: t (Mean, proportion) and F tests, Z test, Non-parametric tests: Binomial test of proportion, Randomness test. Analysis of Variance: One way and two-way Classifications. **Research Reports:** Structure of Research report, Report writing and Presentation. [10+1]

**Note:**

1. It is desirable to use MS Excel / SPSS / Systat for delivery of unit 5.
2. For unit 5, Formulae and calculations are not expected. Interpretation of the given data/test outcomes is expected for appropriate managerial decisions / inferences.

**Suggested Text Books:**

1. Business Research Methods, Donald Cooper & Pamela Schindler, TMGH.
2. Business Research Methods, Alan Bryman & Emma Bell, Oxford University Press
3. Research Methods for Social Work, Allen, Earl R. Babbie, Cengage
4. Research Methods in Business Studies: A Practical Guide, Pervez Ghauri, Dr Kjeil Gronhaug, FT Prentice Hall

**Suggested Reference Books:**

1. Business Research Methods, William G. Zikmund, Barry J. Babin, Jan C. Carr, Mitch Griffin, Cengage Learning
2. Approaches to social research, Royce Singleton, Bruce C. Straits, Margaret Miller Straits, Oxford University Press
3. Research Methods: The Basics, Nicholas S. R. Walliman, Nicholas Walliman, Routledge,
4. Research Methodology in Management, Dr.V.P.Michael

Semester I		
8 Credits	KTY 3123	186 - Basics of Marketing Compulsory Generic Core Course

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
COOIS.1	REMEMBERING	RECALL and REPRODUCE the various concepts, principles, frameworks and terms related to the function and role of marketing.
COOIS.2	UNDERSTANDING	DEMONSTRATE the relevance of marketing management concepts and frameworks to a new or existing business across wide variety of sectors and ILLUSTRATE the role that marketing plays in the 'tool kit' of every organizational leader and manager.
COOIS.3	APPLYING	APPLY marketing principles and theories to the demands of marketing function and practice in contemporary real world scenarios.
COOIS.4	ANALYSING	IDENTIFY and LIST marketing issues pertaining to segmentation, targeting and positioning, marketing environmental forces, consumer buying behavior, marketing mix and Product Life Cycle in the context of real world marketing offering (commodities, goods, services, e-products/ e-services).
COOIS.5	EVALUATING	EXPLAIN the interrelationships between segmentation, targeting and positioning, marketing environment, consumer buying behavior, marketing mix and Product Life Cycle with real world examples.
COOIS.6	CREATING	DISCUSS alternative approaches to segmentation, targeting and positioning, the marketing environment, consumer buying behavior, marketing mix and Product Life Cycle in the context of real world marketing offering (commodities, goods, services, e-products/ e-services).

1. Introduction to Marketing: Definition & Functions of Marketing- Scope of Marketing, Evolution of Marketing, Core concepts of marketing – Need, Want, Demand, Customer Value, Exchange, Customer Satisfaction, Customer Delight, Customer loyalty, Concepts of Markets, Marketing V/S Market, Competition, Key customer markets, market places, market spaces, Meta-markets, Digital Markets, Brick & Click Model, Impact of Globalization, Technology and Social Responsibility on Marketing, New Consumer Capabilities, New Company Capabilities, Functions of Marketing Manager, Usage of Marketing functions with all functions in the organization, Company orientation towards market place, Product – Production – Sales – Marketing – societal – Relational, Holistic Marketing Orientation, Selling versus marketing, Concept of Marketing Myopia, Marketing Process, Understanding Marketing as Creating, Communicating, and Delivering Value (3+2)

2. Marketing Environment: Concept of Environment, Macro Environment & Micro Environment – Components and characteristics, Needs & Trends, Major forces impacting the Macro Environment & Micro Environment, Need for analyzing the Marketing Environment, Analyzing the Political, Economic, Socio-cultural, Technical and Legal Environment, Demographics. (3+2)

3. Segmentation, Target Marketing & Positioning: Segmentation - Concept, Need & Benefits, Geographic, Demographic, Psychographic, Behavioral bases of segmentation for consumer goods and services, Bases for segmentation for business markets, Levels of segmentation, Criteria for effective segmentation, Market Potential & Market Share, Target Market - Concept of Target Markets and criteria for selection, Segment Marketing, Niche & Local Marketing, Mass marketing, Long Tail Marketing, Positioning - Concept of differentiation & positioning, Value Proposition & Unique Selling Proposition. (3+2)

4. Consumer Behavior: Meaning & importance of consumer behavior, Comparison between Organizational Buying behavior and consumer buying behavior, Buying roles, Five steps consumer buyer decision process – Problem Recognition, Information Search, Evaluation of Alternatives, Purchase Decision, Post Purchase behavior, Moment of Truth, Zero Moment of Truth, Moderating effects on consumer behavior. (7+2)

5. Marketing Mix: Origin & Concept of Marketing Mix, 7P's - Product, Price, Place, Promotion, People, Process, Physical evidence, Product Life Cycle: Concept & characteristics of Product Life Cycle (PLC), Relevance of PLC, Types of PLC and Strategies across stages of the PLC. (3+2)

Note: Real world examples / cases are expected to be analyzed in the class as well as included in the examination.



**Suggested Text Books:**

1. Marketing Management, Philip Kotler, Kevin Lane Keller, Abraham Kohly, Mithleshwar Jha, Pearson
2. Marketing Management, Rajan Saxena, TMGH
3. Marketing, Lamb Hair Sharma, Mc Daniel, Cengage Learning

**Suggested Reference Books:**

1. Principles of Marketing, Phillip Kotler, Gary Armstrong, Prafulla Agnihotri, Ehasan Haque, Pearson
2. Marketing Management- Text and Cases, Tapan K Panda, Excel Books
3. Marketing Management, Ramaswamy & Namakumari, Macmillan.
4. Marketing Whitebook

Semester I		106 – Digital Business
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO106.1	REMEMBERING	DESCRIBE the conceptual framework of e commerce, mobile commerce and social commerce.
CO106.2	UNDERSTANDING	SUMMARIZE the impact of information, mobile, social, digital, IOT and related technologies on society, markets & commerce.
CO106.3	APPLYING	ILLUSTRATE value creation & competitive advantage in a digital Business environment.
CO106.4	ANALYSING	EXAMINE the changing role of intermediaries, changing nature of supply chain and payment systems in the online and offline world.
CO106.5	EVALUATING	ELABORATE upon the various types of digital business models and OUTLINE their benefits and limitations.
CO106.6	CREATING	DISCUSS the various applications of Digital Business in the present day world.

1. **Electronic Commerce:** The Digital Revolution and Society, The Digital and Social Worlds - The Digital Economy, The Digital Enterprise, Virtual Communities, Online Communities, Defining Electronic Commerce, Emerging E-Commerce Platforms, E-Business, Electronic Markets and Networks; The Content and Framework of E-Commerce, Classification of E-Commerce by the Nature of the Transactions and the Relationships Among Participants, E-Commerce Business Models, Integrating the Marketplace with the Marketspace, Web 2.0 Drivers, Benefits and Limitations of E-Commerce, Impact of E-Commerce on business, government, customers, citizens and society. **(7+2)**
2. **Mobile Commerce, Social Commerce and IoT:** Mobile Commerce, Attributes Applications and Benefits of M-Commerce, Mobile Marketing - Shopping and Advertising. **Social Commerce:** Social Commerce, Social Business (Enterprise), Social Business Networks and Social Enterprise, Social Media, Platforms for Social Networking; Social Media Marketing, Enterprise 2.0, Improved Business Models, Entrepreneur Networks, Enterprise Social Networks, The Benefits and Limitations of Social Commerce, Benefits to Customers, Retailers, Employees, players in the ecosystem. **Social Collaboration (Collaboration 2.0) - Essentials of Social Collaboration, Consumer-to-Consumer Electronic Commerce (C2C), Person-to-Person models. Internet of Things: Concept of IoT, Smart Homes and Appliances, Smart Cities, Smart Cars, Wearable Computing and Smart Gadgets. (7+2)**
3. **Digital Business Ecosystem:** Electronic Commerce Mechanisms, Online Purchasing Process, E-Marketplaces - Types, Components and Participants, Disintermediation and Reintermediation; Customer Shopping Mechanisms - Webstores, Malls, and Portals, Webstores, Electronic Malls, Web (Information) Portals. **Intermediaries:** Roles of Intermediaries in E-Marketplaces, Merchant Solutions; Electronic Catalogs, Search Engines, and Shopping Carts, Electronic Catalogs, E-Commerce Search Activities, Auctions - Traditional Auctions Versus E-Auctions, Dynamic Pricing. **Changing Supply Chains:** Structure of the Supply Chain, EC Order Fulfillment Process, Speeding Up Deliveries, Partnering Efforts and Outsourcing Logistics, Order Fulfillment in Make-to- Order (MTO) and Mass Customization. **Digital Payments:** Smart Cards, Stored-Value Cards, EC Micropayments, Payment Gateways, Mobile Payments, Digital and Virtual Currencies, Security, Ethical, Legal, Privacy, and Technology Issues. **(7+2)**

**Suggested Text Books:**

1. Marketing Management, Philip Kotler, Kevin Lane Keller, Abraham Koshy, Mithileshwar Jha, Pearson
2. Marketing Management- Text and Cases, Tapan K Panda, Excel Books
3. Marketing, Lamb Hair Sharma, Mc Daniel, Cengage Learning

**Suggested Reference Books:**

1. Principles of Marketing, Philip Kotler, Gary Armstrong, Prafulla Agnihotri, Ehasan Haque, Pearson
2. Marketing Management- Text and Cases, Tapan K Panda, Excel Books
3. Marketing Management, Ramaswamy & Namakumari, Macmillan.
4. Marketing Whitebook

Semester I		106 – Digital Business
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO106.1	REMEMBERING	DESCRIBE the conceptual framework of a commerce, mobile commerce and social commerce.
CO106.2	UNDERSTANDING	SUMMARIZE the impact of information, mobile, social, digital, IOT and related technologies on society, markets & commerce.
CO106.3	APPLYING	ILLUSTRATE value creation & competitive advantage in a digital Business environment.
CO106.4	ANALYSING	EXAMINE the changing role of intermediaries, changing nature of supply chain and payment systems in the online and offline world.
CO106.5	EVALUATING	ELABORATE upon the various types of digital business models and OUTLINE their benefits and limitations.
CO106.6	CREATING	DISCUSS the various applications of Digital Business in the present day world.

1. **Electronic Commerce:** The Digital Revolution and Society, The Digital and Social Worlds – The Digital Economy, The Digital Enterprise, Virtual Communities, Online Communities, Defining Electronic Commerce, Emerging E-Commerce Platforms. E-Business, Electronic Markets and Networks; The Content and Framework of E-Commerce, Classification of E-Commerce by the Nature of the Transactions and the Relationships Among Participants, E-Commerce Business Models, Integrating the Marketplace with the Marketspace, Web 2.0. Drivers, Benefits and Limitations of E-Commerce, Impact of E-Commerce on business, government, customers, citizens and society. (7+2)
2. **Mobile Commerce, Social Commerce and IoT:** Mobile Commerce, Attributes Applications and Benefits of M-Commerce, Mobile Marketing - Shopping and Advertising. **Social Commerce:** Social Commerce, Social Business (Enterprise), Social Business Networks and Social Enterprise, Social Media, Platforms for Social Networking; Social Media Marketing, Enterprise 2.0, Improved Business Models, Entrepreneur Networks, Enterprise Social Networks, The Benefits and Limitations of Social Commerce, Benefits to Customers, Retailers, Employees, players in the ecosystem. Social Collaboration (Collaboration 2.0) - Essentials of Social Collaboration, Consumer-to-Consumer Electronic Commerce (C2C), Person-to-Person models. **Internet of Things:** Concept of IoT, Smart Homes and Appliances, Smart Cities, Smart Cars, Wearable Computing and Smart Gadgets. (7+2)
3. **Digital Business Ecosystem:** Electronic Commerce Mechanisms, Online Purchasing Process, E-Marketplaces - Types, Components and Participants, Disintermediation and Reintermediation; Customer Shopping Mechanisms - Webstores, Malls, and Portals, Webstores, Electronic Malls, Web (Information) Portals. **Intermediaries:** Roles of Intermediaries in E-Marketplaces, Merchant Solutions: Electronic Catalogs, Search Engines, and Shopping Carts, Electronic Catalogs, E-Commerce Search Activities, Auctions - Traditional Auctions Versus E-Auctions, Dynamic Pricing. **Changing Supply Chains:** Structure of the Supply Chain, EC Order Fulfillment Process, Speeding Up Deliveries, Partnering Efforts and Outsourcing Logistics, Order Fulfillment in Make-to- Order (MTO) and Mass Customization. **Digital Payments:** Smart Cards, Stored-Value Cards, EC Micropayments, Payment Gateways, Mobile Payments, Digital and Virtual Currencies; Security, Ethical, Legal, Privacy, and Technology Issues. (7+2)

Semester I		187 - Management Fundamentals
2 Credits	LTP: 2:0:0	Generic Elective - University Level

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

CO#	CO-SHIFT# ABILITY	COURSE OUTCOMES
CO187.1	REMEMBERING	ENUMERATE various managerial competencies and approaches to management.
CO187.2	UNDERSTANDING	EXPLAIN the role and need of Planning, Organizing, Decision Making and Controlling.
CO187.3	APPLYING	MAKE USE OF the principles of goal setting and planning for simple as well as complex tasks and small projects.
CO187.4	ANALYSING	COMPARE and CONTRAST various organizational structures of variety of business and not-for-profit entities in a real world context.
CO187.5	EVALUATING	BUILD a list of the decision making criteria used by practicing managers, leaders and entrepreneurs in routine and non-routine decision making situations and EVALUATE and EXPLAIN the same.
CO187.6	CREATING	FORMULATE and DISCUSS a basic controlling model in a real life business, start-up and not-for-profit organizational context.

- 1. Basic Concepts:** Manager, Managing, Workplace, Organisation, Management Functions, Mintzberg's Managerial Roles, The Universality of Management, Approaches to Management - Early Management, Classical Approach, Behavioral Approach, Quantitative Approach, Contemporary Approaches, Managerial Competencies: Communication, team work, planning and administrative, strategic and global competencies; Managerial Skills; How is the Manager's Job Changing?, Importance of Customer to the Manager's Job, Importance of Innovation to the Manager's Job, Importance of Sustainability to the Manager's Job. (5)
- 2. Planning:** Concept, need, nature, Management By Objectives (MBO) - Process of MBO - Benefits of MBO, Planning and Performance, Goals and Plans, Types of Goals, Types of Plans, Setting Goals and Developing Plans, Approaches to Setting Goals, Developing Plans, Approaches to Planning, Planning Effectively in Dynamic Environments. (6)
- 3. Organizing:** Organisation, Organizing, Organizational Structures, Principles of Work Specialization, Departmentalization, Chain of Command, Span of Control, Centralization and Decentralization, Formalization, Mechanistic and Organic Structures, Factors Affecting Structural Choice - Strategy, Size, Technology, Environmental Uncertainty, Traditional Organizational Designs - Simple Structure, Functional Structure, Divisional Structure, Matrix Structure, Team Structures, Project Structure, Adaptive Organizations - Boundary-less Organization, Virtual Organizations, Learning Organization, Flat Work, Tele-working, Global Organizations. (7)
- 4. Decision Making:** The Decision-making Process - Identifying a Problem - Identifying Decision Criteria - Allocating Weights to the Criteria - Developing Alternatives - Analyzing Alternatives - Selecting an Alternative - Implementing the Alternative - Evaluating Decision Effectiveness, Making Decisions: Rationality, Bounded Rationality, The Role of Intuition, The Role of Evidence-Based Management, Types of Decisions & Decision-Making Conditions, Decision-Making approaches - Quantitative approach, Environmental Approach, System Approach, Ethical Approach, Intuitive Approach, Case Study Approach Decision-Making Styles - Linear-Nonlinear Thinking Style Profile, Decision-Making Biases and Errors, Effective Decision Making in Today's World - Characteristics of decision, Decision environment, Timing of decision, Effective communication of decision, Participation in decision making-implementation of decision. (7)
- 5. Controlling:** Controlling, Definition, need and Importance, The Control Process, Managerial Decisions in Controlling, Feed-forward / Concurrent / Feedback Controls, Financial Controls, Information Controls, Benchmarking of Best Practices. (8)

**Suggested Text Books:**

1. Fundamentals of Management by Robbins, S.P. and Daenzo, D.A., Pearson Education Asia, New Delhi.
2. Management, Koontz and Wehrlich, TMH
3. Management, Stover, et. al., Prentice Hall of India, New Delhi.



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2. Theories of entrepreneurship: Innovation Theory by Schumpeter & Imbert, Theory of High Achievement by McClelland, X-Efficiency Theory by Leibenstein, Theory of Profit by Knight, Theory of Social change by Everett Rogers. (4)

3. Entrepreneurship development: Entrepreneurial Competencies, Developing Competencies, Concept of entrepreneurship development, Entrepreneur Training and developing, Role of Entrepreneur Development Programs (EDP), Role of IIC, ISI, EDC, MESBUD, MEDB, EDP - Objectives - content - methods - execution. Role of Mentors, Innovation and Entrepreneurship, Design Thinking Process, Role of consultancy organizations in promoting Entrepreneurs, Problems and difficulties of Entrepreneurs - Marketing/Finance, Human Resources, Production; Research - external problems, Mobility of Entrepreneurs, Entrepreneurial change, occupational mobility - factors in mobility. (8)

4. Role of Central Government and State Government in promoting Entrepreneurship: Introduction to various incentives, subsidies and grants, Export Oriented Units, Fiscal and Tax concessions available, Women Entrepreneurs - Role, Problems and Prospects, Reasons for low women Entrepreneurs, Assistance Programme for Small Scale Units - Institutional Framework - Role of SSF Sector in the Economy - SSI Units - Failure, Causes and Preventive Measures - Territorial Strategies, Future of Entrepreneurship Development and Government, Start Up India, Make in India. (5)

5. Enterprise Formation: Creating Entrepreneurial Venture, Entrepreneurship Development Cycle, Business Planning Process, The business plan as an entrepreneurial tool, Elements of Business Plan, Objectives, Market Analysis, Development of product / idea - Resources, Capabilities, and strategies, identifying attributes of strategic resources, Opportunity Analysis, Innovation or Invention, SWOT analysis, Internal and External Environment Analysis, Industry Analysis, Emergent Companies and Spin offs, Porter's five forces model, Identifying the right Business Model Canvas, Seven Domains of Jobs to be Done, Opportunities in Emerging/Transition/Decline Industries, Opportunities at the bottom of the pyramid, Opportunities in social sector, Opportunities arising out of digitalization, Marketing, Finance, Organization & Management, Ownership - Franchising, Joint-venture and alliances, Buying an existing business, Critical risk contingencies of the proposal, Scheduling and milestones. (8)

**Suggested Text Books:**

1. Dynamics of Entrepreneurship Development, Visant Desai
2. Entrepreneurship: New Venture Creation, David H. Holt
3. Entrepreneurship Development: New Venture Creation, Satish Tripathi, S.L. Gupta
4. Project management, K. Nagasujan.
5. Entrepreneurship: Strategies and Resources, Marc L. Dollinger

**Suggested Reference Books:**

1. The Culture of Entrepreneurship, Brigitte Berger
2. Innovation and Entrepreneurship, Peter F. Drucker
3. Entrepreneurship, Robert D. Horick, Michael P. Peters, Dean A. Shepherd
4. Entrepreneurship As Strategy, G. Dale Meyer, Kurt A. Hoppard
5. New Vistas of Entrepreneurship: Challenges & Opportunities, A. Sakay, M.S.Chhikara
6. Entrepreneurship and Small Business Management, Shripelle
7. The Entrepreneurial Connection, Giuseppe Narada
8. Thought Leadership, Steven Brandt
9. Corporate Entrepreneurship, Vijay Sethi
10. Corporate Entrepreneurship: Entrepreneurial Development Inside Organizations, Michael H.Morris, Donald F. Harada
11. Intrapreneurship: Gifford Pinchot
12. Lead Like an Entrepreneur, Neal Thornberry
13. You Too Can Become an Entrepreneur, Philadelpha Mutsaers
14. Make The Movie: Demystifying Entrepreneurship, Ishan Gupta, Rajat Khare

Semester I		119 – Essentials of Psychology for Managers
2 Credits	LTP: 2:0:0	Generic Elective – University Level

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO10.1	REMEMBERING	DEFINE the basic concepts of psychology.
CO10.2	UNDERSTANDING	EXPLAIN the perceiving and perceiving processes.
CO10.3	APPLYING	APPLY principles of learning and conditioning to human behavior.

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8. **The Companies (Amendment) Act, 2018:** Company – Definition, Meaning, Features and Types, One Person Company, Incorporation of Company – Memorandum of Association (MOA), Articles of Association (AOA), Share capital & Debentures, Acceptance of deposits, Appointment of director including women Director. (5+1)  
 9. **The Consumer Protection Act, 1986, Unfair & Restrictive Trade Practices, Dispute Redressal Forums – District, State & National Forum, Composition, Jurisdiction, Powers, Appellate Authority, Arbitration Technology Act, 2000, Digital Signature, Electronic Governance, Electronic Records E-Contracts, E- Business models, E- Commerce & Security, Cyber Crimes, Intellectual Property Laws – Understanding of concepts of patents, copyrights, trademarks and designs. (5+1)**

**Suggested Text Books:**

1. Business Legislations for Management, M.C. Kuchhal
2. Elements of Mercantile Law, N.D. Kapoor
3. Business and Corporate Laws, Dr. P.C. Tuliyan

**Suggested Reference Books:**

1. Legal Aspects of Business, Raninder Kaur
2. Business Laws, S. D. Gant
3. Business Laws, S.S. Gulshan
4. Legal Aspects of Business, Abhishwar Pathak

Semester I		<b>112 – Demand Analysis and Forecasting</b>
3 Credits	KTP: 2:8:0	Generic Elective – University Level

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO112.1	REMEMBERING	DESCRIBE the key terms associated with demand analysis, demand estimation and demand forecasting.
CO112.2	UNDERSTANDING	SUMMARIZE the use of demand forecasting in various functions of management.
CO112.3	APPLYING	IDENTIFY the pros and cons of various forecasting methods
CO112.4	ANALYSING	DECONSTRUCT a forecast into its various components
CO112.5	EVALUATING	BUILD a forecast for common products and services using time-series data.

1. **Demand Analysis: An Overview, Significance of Demand Analysis and Forecasting, How Predictable is the Future? Some Causes of Forecast Error, Myths versus Reality of Forecasting, Data Collection, Storage, and Processing Reality, Art-of-Forecasting, Reality of Judgmental Overrides, Reality of Unconstrained Forecasts, Constrained Forecasts, and Plans, Accuracy of Forecast, Short Run Forecast, Long Term Forecast. Applications of Forecasting – Forecasting economic trends, Sales Forecasts, Staffing forecasts, budgeting, revenue and tax planning, cash flows forecasting, new material planning, inventory planning, etc. (5+1)**
2. **Estimation of Demand - Marketing Research Techniques - Consumer Surveys, Consumer Clinics and Focus Groups, Market Experiments in Test Stores, Statistical Estimation, Variable Identification, Time Series and Cross Sectional Data Collection, Specification of the Model, Estimation of the Parameters, Interpretation of Regression Statistics. (5+1)**
3. **Forecasting Demand: Overview of Forecasting Methods, Selecting a Forecasting Technique, Purpose of Forecast, Type of Users, Patterns in the Data Series, Lead Time, Minimum Data Requirement, Desired Accuracy, Cost of forecasting, Qualitative Forecasting Techniques - Survey and Opinion Polling Techniques, Delphi Method, Cross Impact Analysis, Historical Analogy. (5+1)**
4. **Quantitative Forecasting Methods Using Time Series Data: Time Series Analysis - Trend Analysis, Cyclical Variations, Seasonal Effects, Random Fluctuations, Smoothing Techniques, Moving Averages, Exponential Smoothing, Single Exponential Smoothing, Holt's Two-Parameter Method, Holt's-Winters' Method, Winters' Additive Seasonality Standard Statistical Error Terms, Specific Measures of Forecast Error, Out-of-Sample Measurement, Forecast Value Added, Barometric Techniques - Leading, Lagging and Coincident Economic Indicators, Diffusion and Composite Indicators, Choose the Appropriate Forecasting Method Use of Software Packages for Forecasting such as EXCEL. (5+0)**
5. **New Product Forecasting: Using Structured Judgment, Differences between Evolutionary and Revolutionary New Products, General Feeling about New Product Forecasting, New Product Forecasting Overview, What is a Candidate**

CO110.4	ANALYSING	ILLUSTRATE the linkages between learning, memory and information processing.
CO110.5	EVALUATING	EXPLAIN the basic intrapersonal processes that influence social perception.

- 1. Basic Concepts:** Introduction to Psychology, Definitions of Psychology, Goals of Psychology, History of Psychology, Modern Psychology, Psychology: its Grand Issues and Key Perspectives, Psychology - Trends for the New Millennium. Biological Bases of Behavior: Neurons - Building Blocks of the Nervous System, The Nervous System - Its Basic Structure and Functions, The Brain and Consciousness – states of consciousness, dreams, hallucinations, The Brain and Human Behavior, Heredity and Behavior - Genetics and Evolutionary Psychology. (6)
- 2. Sensation and Perception :** Sensing and perceiving, Sensory Thresholds, Sensory Adaptation, The Senses - Hearing, Vision, Perceptual Processes, Information Processing – Bottom Up Processing, Top Down processing, Bottom Up and Top Down (together) processing, Culture, Experience & Perception, Perceptual Constancy, Perceptual Expectations, Perceptual illusions, Gestalt Theory, Perceptual Development and Learning. (6)
- 3. Learning and Conditioning:** A Definition of Learning, Classical Conditioning, Instrumental Conditioning, Classical and Instrumental Conditioning Compared: Biofeedback and Reinforcement, Verbal Learning, Basic Conditioning and Learning Phenomena, Reinforcement, Schedules of reinforcement, role of reinforcement in developing subordinate Social Behavior, Transfer of Training, Learning by Observing Models, Biological Limits. (6)
- 4. Memory:** Learning and Memory as Intertwined Processes, Kinds of Information Stored in Memory, Measures of Retention, The Three Components of Memory – Encoding, Storage, Retrieval, Interference Theory, Decay Theory, Information Processing I: Separate-Store Models, Information Processing II: Levels of Processing, Issues in Memory. (6)
- 5. Cognition:** Thinking - Mental Imagery, Problem Solving, Decision Making, Concept Formation, Language development, Relationship between language and thinking. **Emotion:** Definition of Emotion, the Physiology of Emotion, Emotional Expression - Verbal & Non Verbal, Labelling Emotions, Theories of Emotion – Common sense theory of emotion, James Lang theory of emotion, Cannon Bard Theory of Emotion, Cognitive Arousal Theory of Emotion(6)

**Suggested Text Books:**

1. Psychology Ciccarelli, S. K & Meyer, G.E Pearson Education Ltd.
2. Introduction to Psychology, Clifford T. Morgan, Richard A King, John R Weisz and John Schopler, Indian Edition

**Suggested Reference Books:**

1. Essentials of understanding psychology, Feldman.S.R, Tata Mc Graw Hill.
2. Psychology, Baron, R.A and Misra, G, Pearson Education Ltd.

Semester I		111 - Legal Aspects of Business
2 Credits	LTP: 2:0:0	Generic Elective – University Level

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO111.1	REMEMBERING	DESCRIBE the key terms involved in each Act.
CO111.2	UNDERSTANDING	SUMMARIZE the key legal provisions of each Act.
CO111.3	APPLYING	ILLUSTRATE the use of the Acts in common business situations.
CO111.4	ANALYSING	OUTLINE the various facets of basic case laws of each Act from a legal and managerial perspective.
CO111.5	EVALUATING	DEVELOP critical thinking by making judgments related to use of various provisions of the Acts in business situations

- 1. The Contract Act, 1872:** Essential Elements of Valid Contract, Essential elements of Valid Contracts, Contracts of Indemnity & Guarantee, Contingent Contract, Quasi Contract, Discharge of contract, Breach of contract-Meaning & remedies, Agency - Creation of Agency – Agent and Principal (Relationship/rights), Types of agency. (5+1)
- 2. Sale of Goods Act, 1930:** Contract of sale of goods, Conditions & warranties, Transfer of property or ownership, Performance of the Contract of Sale, Rights of unpaid seller, Sale by Auction. (5+1)
- 3. The Negotiable Instrument Act, 1881:** Negotiable Instruments – Meaning, Characteristics, Types, Parties, Holder and holder in due course, Negotiation and Types of Endorsements, Dishonor of Negotiable Instrument – Noting and Protest. (5+1)



**Suggested Reference Books:**

1. Management, McGregor, Thompson Learning, Bombay
2. Management, Robbins & Coulter, Pearson Hall of Hall of India, New Delhi.
3. Management - Text & Cases, Satya Raju, PHI, New Delhi.
4. Management, Richard L. Braff, Thomson South-Western

Semester I		SEM – Indian Economy
3 Credits	LTP: 2-0-0	Generic Elective – University Level

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

CO#	COBENEFICIARIES	COURSE OUTCOMES
CO100.1	UNDERSTANDING	DESCRIBE the present state of Indian Economy and LIST major economic policy issues in the current context.
CO100.2	UNDERSTANDING	EXPLAIN the economic development strategy since independence and DISCUSS the priorities in the current context.
CO100.3	APPLYING	ILLUSTRATE the economic impact of Monetary policy and Fiscal Policy, Economic Reforms, Demographic Transition in India, Changing profile of GDP, Growth and Inequality and Trade Policy in the Indian context.
CO100.4	ANALYSING	EVALUATE the changing profile of human capital, employment, productivity and ILLUSTRATE the linkages with Soft Infrastructure, growth of Start-ups, GDP composition of India.
CO100.5	EVALUATING	DETERMINE the key priority areas, across various dimensions, for the Indian Economy in the context of current economic environment.
CO100.6	CREATING	BUILD a case for co-existence of MNCs, Indian Public Sector, Indian Private Sector, SMEs, MSMEs and Start Ups in the Indian Economy.

2. **Perspective of Indian Economy:** Indian Economy as a Developing Economy, Basic Characteristics Overview of Economic Planning, Role of Monetary policy and Fiscal Policy, Budget terminology, Economic Growth, GDP and GNP Trends, Money Supply & Inflation, Inflation trends, RBI – overview of role and functions, Capital Markets – overview of role and functions, Concept of Poverty, Estimates of Poverty, Poverty Line, Economic Reforms and Reduction of Poverty, Concept of Inclusion, Need of Inclusive growth, Financial Inclusion, Concept of Hard & Soft Infrastructures. Hard Infrastructures - Transport Infrastructures, Energy Infrastructures, Water management Infrastructures, Communication Infrastructures, Solid waste management, Earth monitoring and measuring networks. Soft Infrastructures - Governance Infrastructures, Economic Infrastructures, Social Infrastructures, Critical Infrastructures, Urban Infrastructures, Green Infrastructures, Education Infrastructures, Health Infrastructures. (6)

2. **Human Resources and Economic Development:** The Theory of Demographic Transition, Size and Growth Rate of Population in India, Quantitative Population Growth Differentiate in Different Countries, The Sex Composition of Population, Age Composition of Population, Density of Population, Urbanization and Economic Growth in India, The Quality of Population, Population Projections (2011-2036), Demographic Dividend, Human Development in India - The Concept and Measures of Human Development, Human Development Index for Various States in India, National Human Development Report, Changing profile of GDP and employment in India, GDP, Employment and Productivity per Worker in India, Relative Shift in the Shares of MSDP and Employment in Agriculture, Industry and Services in Different States. (6)

3. **Sectoral composition of Indian Economy:** Primary, Secondary, Tertiary Sectors, Issues in Agriculture sector in India and reforms, Green Revolution and agriculture policies of India, Industrial development, small scale and cottage industries, Industrial Policy, Public sector in India, Services sector in India, Areas of Market Failure and Need for State Intervention, Redefining the Role of the State, Liberalization, Privatization and Globalization (LPG) Model of Development, Planning commission w/ NITI Aayog, Public Versus Private Sector Debate, Unorganised Sector and India's Informal Economy. (6)

4. **Inequality and Economic Power in India:** FDI, Angel Investors and Start-ups, Unicorns, M&A, Investment Models, Role of State, PPP (Public-Private Partnership), Savings and Investment Trends, Growth of Large Industrial Houses Since Independence, Growth of Monopolies and Concentration of Economic Power in India, Competition Policy and Competition Law, Growth and Inequality, India as an Economic Superpower, Growth of the Indian Middle Class, Indian MNCs: Mergers and Acquisitions, Outsourcing, Nationalism and Globalization, Small-scale and Cottage Enterprises, The

Role of Small-scale Industries in Indian Economy, Poverty, Vulnerability and Unorganized Sector Employment-The High Degree of Correlation, Extents of Organized and Unorganized Workers. [6]

9. The Foreign Trade of India: Importance of Foreign Trade for a Developing Economy, Overview of Foreign Trade Since Independence, Composition of India's Foreign Trade, Direction of India's Foreign Trade, India's Balance of Payments on Current Account, Balance of Payments Crisis, Balance of Payments Since the New Economic Reforms of 1991, India's Trade Policy, India's Foreign Trade Policy, An Analysis of Trends in Exports and Imports. Special Economic Zones (SEZs) An Overview. [6]

**Suggested Text Books:**

1. Indian Economy, Dr. R. and Sandhu K.P.M, S. Chand, Delhi
2. Indian Economy, Agarwal A. N., Vikas Publishing House, Delhi
3. Indian Economy, Mitra S.K. and Puri Y.K., Himalaya Publishing House, New Delhi
4. Business Environment, Basu S.K, Excel Books
5. Economic Reforms in India - A Critique, Dutt Riddar, S. Chand, New Delhi.

**Suggested Reference Books:**

1. Economic Environment of Business, Acharya, Saitan Chand and Sons
2. Business, Government and Society, George A and Dolner B A, Macmillan
3. Economic Environment of Business, Ghosh, Vikas
4. Business Environment, Prasad Chawhan, Himalaya Publishing House, Bombay
5. Industrial Economy of India, Keshari S.C., Chaitanya Publishing House, Allahabad

Semester I		180 – Entrepreneurship Development
3 Credits	ETP: 260	Generic Elective – University Level

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO001.1	REMEMBERING	DEFINE the key terms, LIST the Attributes and Characteristics of Entrepreneurs features and ENUMERATE the Factors influencing Entrepreneurship Growth.
CO001.2	UNDERSTANDING	DISCUSS various theories of entrepreneurship and the entrepreneurship development ecosystem in Indian context.
CO001.3	APPLYING	APPLY the theories of entrepreneurship and entrepreneurship development framework to analyze and identify entrepreneurial opportunities.
CO001.4	ANALYSING	DISCRIMINATE between potential options available for entrepreneur for operating an establishing a Start Up.
CO001.5	EVALUATING	EVALUATE the start up ecosystem and the entrepreneurial opportunities in light of requirements of a business plan.
CO001.6	CREATING	CREATE a business plan that captures entrepreneurs and viability of entrepreneur motivations, entrepreneur culture and sectoral opportunities and financing options.

1. Entrepreneurship: Concept of Entrepreneur, Intrapreneur, Entrepreneurship and Manager. Difference between Entrepreneur and Intrapreneur, Entrepreneur and Entrepreneurship. Attributes and Characteristics of successful entrepreneurs. Functions of an Entrepreneur. Classification of Entrepreneurs. Role of Entrepreneur in Indian Economy. Developing entrepreneurial culture, Factors influencing Entrepreneurship Growth - Economic, Non-Economic Factors, For profit or Not for profit entrepreneurs, Constraints for the Growth of Entrepreneurial Culture, Entrepreneurship as a career, Entrepreneurship as a style of management, Emerging Models of Corporate Entrepreneurship, India's start up revolution-Trends, Impediments, Benefits; the players involved in the ecosystem, Business Incubators-Rural entrepreneurship, social entrepreneurship, women entrepreneurs, Cases of Tata, Infosys, Flipkart and new generation entrepreneurs in India. [6]

2. Business Communication, P.D. Chaturvedi, Pearson Education
3. Business Communication, T N Chhabra, Bharu Ranjan, Sun India
4. Verbal and Non-Verbal Reasoning, Prakash, P, Macmillan India Ltd., New Delhi
5. Objective English, Thorpe, E, and Thorpe, S, Pearson Education, New Delhi

**Suggested Reference Books:**

1. Communication Skills for Effective Management, Hargie et. al., Palgrave
2. Communication for Business, Tayler Shinley, Pearson Education
3. Technical Communication, Anderson, P.V, Thomson Wadsworth, New Delhi
4. The Oxford Guide to Writing and Speaking, John Seely, Oxford University Press, New Delhi
5. Dictionary of Common Errors, Turton, N.D and Heaton, J.B, Addison Wesley Longman Ltd.

Semester I		114 - Enterprise Analysis - Desk Research
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO114.1	REMEMBERING	DESCRIBE the key historical, organizational, market related, financial, governance, leadership and social responsibility dimensions of a real world business organization.
CO114.2	UNDERSTANDING	SUMMARIZE the regional, national and global footprint of a real world business organization.
CO114.3	APPLYING	DEMONSTRATE the use of secondary – offline and online resources to profile a real world business organization.
CO114.4	ANALYSING	ANALYSE, using tables and charts, the trends in market standing and financial performance of a real world business organization over the last 5 years.
CO114.5	EVALUATING	COMPOSE a succinct summary of future plans of a real world business organization the company website, shareholders reports and other information available in the public domain.
CO114.6	CREATING	IMAGINE the key challenges and opportunities for a real world business organization in the immediate future (1 to 3 years).

1. **Enterprise History & Background:** Establishment, Original & Current Promoters, Business Group or Business Family to which it belongs, Vision-Mission-Philosophy – Values-Quality Policy, Brief profiles of the Chairman, CEO, MD, Members of Board of Directors along with their career highlights CSR Initiatives, Technical and other collaborations if any, Recent Mergers and Acquisitions, if any. (6)
2. **Organization :** Organization Structure, Geographical (domestic and global) foot print – at the time of inception and spread over the years, company's current head quarter worldwide as well as head quarter / corporate office in India, Manufacturing /Service locations Indian and major worldwide, Certifications if any – ISO / EMS / FDA / CMMI , etc. Online presence, Initiatives towards gender diversity, Initiatives towards social inclusion, Initiatives towards environment conservation, Current Talent needs, Key highlights of the company's website. (6)
3. **Markets:** Major Customers, customer segments, Products, Product lines, Major Brands, Market Share – nationally, region wise, product wise, Advertising Agency, Advertising Punch Line/Slogan, Logo, Key Alliances in the past 5 years & impact. Mergers & Acquisitions, if any. Technological developments, Disruptive Innovations affecting the organization, Labour unrest if any – reasons thereof and impact, Emerging potential competition through first generation entrepreneurs or global / local players. (6)
4. **Financials:** Data to be studied, tabulated, graphically depicted, analyzed and presented for last 5 years for the Revenues, Profitability, Market Capitalization, Segmented Revenues, Auditors, Listing status & Scrip Codes – BSE and NSE, Global Listings on International Stock Markets, Share Price Face Value, Current Market Value, Annual High Low Figures, P/E Ratio, Shareholding Pattern. (6)
5. **Governance:** Philosophy, Action taken by SEBI if any, Involvement in Scams, Insider Trading Issues, Standard & Poor's Corporate Governance Scores, CRISIL Rating, Major Awards and Achievements of the Organization in the last 5 years, Forward looking statements of the top management. (6)

**Note:**



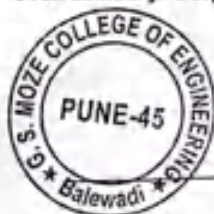
3. Detailed study of atleast FIVE Systems and underlying Procedures, such as: (list is illustrative only)
- a) Attendance Recording System in a manufacturing / service organization.
  - b) Employee scheduling in a retail mall.
  - c) Facilities management and scheduling system in automobile workshop.
  - d) Inventory Management
  - e) Just in Time Inventory System in a manufacturing / service organization.
  - f) Kitchen Order Ticket (KOT) System in a Restaurant.
  - g) KYC verification system in a mutual fund house.
  - h) Loan approval system in a cooperative bank.
  - i) Maintenance system in a facility.
  - j) On-boarding of new employees in a manufacturing / service organization.
  - k) Payroll Management
  - l) Performance Appraisal system in a manufacturing / service organization.
  - m) Point of sale (POS) system in an organized retail store.
  - n) Purchase Order System in a manufacturing / service organization.
  - o) Quality Audit system
  - p) Receivables Management
  - q) Stock Taking system in a library.
  - r) Warehouse management system.
4. Presentation of individual/group projects

Suggested Text Book:

1. Business Process Management – A Rigorous Approach, Martyn A Guld , British Computer Society, First South Asia Edition.

HOD MBA

Prof. Sambhaji Dorge



SPPU - MBA Revised Curriculum 2019 CBCGS & OBE Pattern

1. Students should work in groups of 3 to 5 each under the guidance of a faculty.
2. Students shall carry out an indepth study of any THREE Organizations of their choice.
3. Organizations selected should demonstrate a variety across sectors, ownerships, size, and other key dimensions.
4. Students shall submit a structured detailed report.

**Suggested Text Books:**

1. No text books are prescribed.
2. The course has to be taught using the company annual reports and other publications, company website, social media feeds, business newspapers and business data bases such as ACE equity, CRISIL database, etc.

Semester I		115 - Selling & Negotiations Skills Lab
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO115.1	REMEMBERING	DESCRIBE the various selling situations and selling types.
CO115.2	UNDERSTANDING	OUTLINE the pre-sales work to be carried out by a professional salesperson.
CO115.3	APPLYING	IDENTIFY the key individuals involved in a real world sales process for a real world product/ service / e-product / e-service.
CO115.4	ANALYSING	FORMULATE a sales script for a real world sales call for a product/ service / e-product / e-service.
CO115.5	EVALUATING	DECONSTRUCT the pros and cons of sample real world sales calls for a product/ service / e-product / e-service.
CO115.6	CREATING	DEVELOP a sales proposal for a real world product/ service / e-product / e-service and for a real world selling situation.

1. **Basics of Selling: Importance of Selling.** Role in the context of organization – survival and growth. Types of Selling - Different in selling situations, New business versus service selling, Newton's classification of sales types, McMurry & Arnold's classification of selling types, Consumer indirect selling, Industrial selling, Missionary, Sales Team/group selling, Merchandising, Telesales, Franchise selling, International selling. (5)
2. **Pre-Selling Work : Attributes of a Good Salesperson -** Personality & physical characteristics, Enthusiasm, Confidence, Intelligence, Self-worth, Knowledge- product, Competition, organization, market, customer, territory; People Buy From People, Communication skills, Persuasive skills, Personal Diary, Time management, Managing Sales Documents and collaterals management. Fear Factor in Sales. Maximising Productivity in a Sales Role, Meetings and Your Time, The Telephone - Social Media & Online Data Bases as a Sales Tools, Developing Your Script, Mailers, Pre-Call Planning, Generating Appointments. (7)
3. **Selling in Action: Identifying Key Individuals –** Prospecting, Influencers and Decision Makers, Talking to the Right Individuals, Making that Good First Impression, How to Win Friends and Influence People, Dale Carnegies Six Principles of Relationship, What's in it For Me?, Honesty and Integrity. (5)
4. **Objection handling: Analyzing the Reasons for Objections, Seeing What We Can Do, Listen - Probe - Advise (I-P-A),** Exercise: Objection Handling, Uncovering Objections, Seven Types of Objections, Turning Objections into Selling Opportunities. Selling Techniques: Cross Selling, Up Selling, Value Added (Suggestive) Selling, Advancing Opportunity, Exceeding Customer Expectations, Giving Recognition. (6)
5. **Sales Conversation, Negotiation & Closure: Starting a Quality Prospecting Conversation, Listeners Control Conversations, Trial Closing, Creating an Opportunity: Situation vs Problem Questions, Difficulty Questions, Negative and Positive Answer Questions, Directive Questions, Rhetorical Questions. Problems with Positional Bargaining, Opening Up the Negotiation, Approaches to Better Negotiation, You Have Alternatives, Reverse Psychology in Negotiation, Sales Proposals: How to Construct a Sales Proposal, Important Factors to Consider, Putting it All Together. (7)**

**Note:**

1. The course should be delivered from a skills building perspective.
2. Principles should be supplemented by live exercises on personal selling

**Suggested Text Books:**

1. Selling & Sales Management, Geoffrey Lancaster & David Jobber, Macmillan India Ltd.
2. Negotiation: Communication for diverse settings, Mitchell L. Spangle and Adja Isenhardt, Sage South Asia Edition.
3. The Sales Bible: The Ultimate Sales Resource, Jeffrey Gitomer, Wiley India
4. How to win friends and influence People, Dale Carnegie
5. The Art of Closing the Sale, Brian Tracy, Pearson Education.

**Suggested Reference Books:**

1. Sales Management, Bill Desautels, Palgrave Publications
2. You can negotiate anything, Herb Cohen
3. Managing Sales Leads, Crocker and Obermayer, American Marketing Association

Semester I		118 - MS Excel
2 Credits	ETP: 60%	Generic Elective – Institute Level

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO116.1	REMEMBERING	SELECT appropriate names and functions of MS Excel to Create, Format, Import, Merge, Save, Print Spreadsheets & Charts using business data.
CO116.2	UNDERSTANDING	SHOW how to do basic troubleshooting and fix mistakes most people make when working with spreadsheets.
CO116.3	APPLYING	USE various functions of MS Excel, Execute pivot table analysis, common (and powerful) functions, and different types of lookup (vlookup, hlookup, and index/match).
CO116.4	ANALYSING	ILLUSTRATE the use of the most commonly used data-navigating commands in MS Excel.
CO116.5	EVALUATING	DERIVE insights from multiple data sources in MS EXCEL and work with it to answer relevant business questions.
CO116.6	CREATING	CREATE standard Excel Templates for routine business data management and analysis activities.

1. Introduction to Spreadsheets - Understanding Microsoft Excel, Excel Workbook Windows, Basic Spreadsheet Skills, Excel Help System, Opening and Closing Workbooks, Understanding Workbook File Formats, Creating New Workbooks, Selecting Cells, Auto Sum and Auto Fill Function, Cell Referencing and Request, Formatting Cells, Formatting Numbers, Placing Cell Alignment, Cell, Rows and Columns, Understanding Worksheets, Editing, Copying and Moving Cells, Page Layouts in Excel, Protecting Workbooks, Basic Options, Ribbons and Toolbar.(4)
2. Defining Names in Excel, Sorting Data, Using Excel Tables, Filtering Data in Excel, Understanding Charts, Chart Design Options and Tools, Chart Format Tools, Combo Charts, Functions within Excel, Understanding Data Function, Information Functions, Logical Functions, Find and Replace, Headers and Footers, Adding Comments, Conditional Formatting. (5)
3. Using Text to Columns, The Paste Special Function, Data Validation, Subtotals and Grouping, Consolidating Data, Scenario Analysis, Data Tables in Scenario Analysis, What-If Analysis, Mids and Trig Functions, Text Functions in Excel, Using Lookup Functions, Vlookups, Hlookups, Match, Using Statistical Functions, Database Functions, Financial Functions, Formula Auditing and Error Tracing, Hyperlinks in Excel, Linking Data, Understanding Pivot Tables, Using Pivot Charts, Workbook Properties, Protecting and Sharing Workbooks, Data Encrypting and Fixing Workbooks, Understanding Macros, Custom Number Formats in Excel, Using Custom Lists, Working with Templates, Tracking Changes in Excel, Merging and Compare Excel Workbooks. (7)
4. Using Pivot tables – Slicers -Report Filters for basic analytics, Contact Management and Marketing With Excel, Managing Customers, Vendors And Employees, Gaining Product And Service Insights, Sales reports using Excel, Supervising Sales With Excel, Preparing Invoices, Assessing Account Aging, Analyzing Demographics, Creating Scheduling And Marketing Calendars, Creating Standard Excel Templates for routine business data management and analysis activities. (7)
5. Managing Money With Excel, Building & Tracking Budgets, Planning And Tracking Loans, Keeping Account Registers, Creating Formulas for Financial Applications, PV, FV, NPV, IRR, Creating Balance Sheet, Investment Calculations, Depreciation calculations, Job based Evaluation, Gauging Business Status with Excel, Configuring Cash Flow



## Generic Courses (Electives) – Institute Level – Semester I &amp; II

Semester I		113 - Verbal Communication Lab
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO113.1	REMEMBERING	RECOGNIZE the various elements of communication, channels of communication and barriers to effective communication.
CO113.2	UNDERSTANDING	EXPRESS themselves effectively in routine and special real world business interactions.
CO113.3	APPLYING	DEMONSTRATE appropriate use of body language.
CO113.4	ANALYSING	TAKE PART IN professional meetings, group discussions, telephonic calls, elementary interviews and public speaking activities.
CO113.5	EVALUATING	APPRAISE the pros and cons of sample recorded verbal communications in a business context.
CO113.6	CREATING	CREATE and DELIVER effective business presentations, using appropriate technology tools, for common business situations.

1. **Basics of Communication:** Communication elements and process, Need of Communication Skills for Managers, Channels, forms and dimensions of communication, Verbal and non-verbal communication, Principles of nonverbal communication - through clothes and body language, Persuasive communication; the process of persuasion, formal and informal persuasion, Barriers to communication and how to overcome the barriers, Principles of effective communication. (5)

2. **Speaking:** Characteristics of effective speech, voice quality, rate of speaking, clear articulation, eye contact, use of expressions, and gestures and posture; Types of managerial speeches: speech of introduction, speech of vote of thanks, occasional speech, theme speech, formal speeches during meetings. (5)

3. **Soft skills:** How communication skills and soft skills are inter-related, Body language-posture, eye-contact, handling hand movements, gait - Voice and tone, Meeting and Boardroom Protocol - Guidelines for planning a meeting, Before the meeting, On the day of the Meeting, Guidelines for Attending the meeting, For the Chairperson, For attendees, For Presenters, Telephone Etiquette, Cell phone etiquette, Telephone etiquette guidelines, Mastering the telephone courtesy, Active listening, Putting callers on hold, Transferring a call, Screening calls, Taking a message, Voice Mail, Closing the call, When Making calls, Closing the call, Handling rude or impatient clients, Cross-cultural communication, cultural sensitivity, Cross-cultural issues which affect Communication across different Cultures, Culture and non-verbal communication, Effective intercultural communication, Business and social etiquette. (7)

4. **Presentation skills:** Principles of Effective Presentations, Planning, Structure and Delivery, Principles governing the use of audiovisual media, Time management - Slide design and transition: representation of textual information into visuals for effectiveness of communication - Style and persuasiveness of the message - Adherence to the number of slides, Dynamics of group presentation and individual presentation. (5)

5. **Interviews:** Essentials of placement Interviews, web /video conferencing, tele-meeting, Impression Formation, Tactics, The Self-presentational Motive, The Compass Qualities; First and Lasting Impressions; Magic Pills; Toxic Traits; The Social Context: Norms and Roles, The Target's Values, Physical Appearance; Communication Style; Content of Communication; Actions; The Environment; Success; Changing from the Outside-in, Current Social Image, The Private Self, Worrying about Impressions. (5)

**Note:**

- The entire course should be delivered with a skills development focus.
- Video recordings of student's performances (speaking tasks) should be carried out and used for intensive reviews for performance improvement.

**Suggested Text Books:**

- Business Communication Today, Bovee C L et. al., Pearson Education

SPU - MBA Revised Curriculum 2023 (CQCA) & QEP Pattern

Statements, Resolving Business Ratios, Creating Standard Excel Templates for routine business data management and related activities (7)

**Note:**

- The entire course should be delivered in the computer lab in an application oriented manner.
- Business Applications should be stressed rather than merely teaching Excel as a software.

**Suggested Text Books:**

- Excel 2016 Bible, John Walkenbach, John Wiley & Sons
- Excel: Formulas & Functions, Robert Dinkovale
- Excel 2007 for Dummies by Greg Harvey
- New Perspectives on Microsoft Office Excel 2007
- Microsoft Excel 2016 Step by Step, Curtis Frye

Semester I		117 -Business Systems and Procedures
3 Credits	LTP: 08:4	Generic Elective – Institute Level

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

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO117.1	REMEMBERING	IDENTIFY the key elements of a typical business system and related work flow procedures.
CO117.2	UNDERSTANDING	EXPLAIN a business system and related procedures.
CO117.3	APPLYING	PREDICT the fall points / bottle necks in a typical business process.
CO117.4	ANALYSING	BREAK DOWN a business system into simpler components and explain the inter-relationships.
CO117.5	EVALUATING	DEVELOP a process based thinking approach.
CO117.6	CREATING	CREATE standard operating procedures and flow charts / other visual representations for typical business systems and processes.

2. **Business Systems and Procedures:** Concept and need – Characteristics of a good procedure. Writing a Standard Operating Procedure (SOP)– Procedure Identification– Information Gathering–Interviewing– Analysis– Writing– Implementation– Review– Identifying Fall Points – Fine-tuning, Process Mapping Tools – Aid Memoir – Flowchart – Swim Lane Diagrams – Flow Charting Software – Using MS Word and Excel for Flowcharting- Case Studies, Re-engineering information flow and paper flow – Process Mapping for Current and Future State Map.

3. **Systems Study:** Process Mapping, Improvement and Writing SOP's for an entire range of activities for a typical business process in a manufacturing/ service organization. Students should visit appropriate organizations to study the real life processes.

4. **Detailed study of atleast FIVE Systems and underlying Procedures, such as (list is illustrative only)**

- Attendance Recording System in a manufacturing / service organization.
- Employee scheduling in a retail mall.
- Facilities management and scheduling system in automobile workshop.
- Inventory Management
- Just in Time Inventory System in a manufacturing / service organization.
- Kitchen Order Ticket (KOT) System in a Restaurant.
- KYC verification system in a mutual fund house.
- Loan approval system in a cooperative bank.
- Maintenance system in a facility.
- On-boarding of new employees in a manufacturing / service organization.
- Payroll Management.
- Performance Appraisal system in a manufacturing / service organization.
- Point of sale (POS) system in an organized retail store.
- Purchase Order System in a manufacturing / service organization.
- Quality Audit system
- Receivables Management
- Stock Tyking system in a library.
- Warehouse management system.

HOD MBA

Prof. Sambhaji Dongre



# Savitribai Phule Pune University

## B. E. (Mechanical) (2015 Course) Semester – I

Code	Subject	Teaching Scheme Hrs / week			Examination Scheme					Total Marks	Credits	
		Lecture	Tut	Pract	In Sem	End Sem	TW	PR	OR		Theory	TW/ Pr/OR
402041	Hydraulics and Pneumatics	3	-	2	30	70	25	-	25	150	3	1
402042	CAD CAM Automation	3	-	2	30	70	25	50	-	175	3	1
402043	Dynamics of Machinery	4	-	2	30	70	25	-	25	150	4	1
402044	Elective-I	3	-	2	30	70	25	-	-	125	3	1
402045	Elective-II	3	-	-	30	70	-	-	-	100	3	-
402046	Project-I	-	-	4	-	-	25	-	25	50	-	2
Total		16	-	12	150	350	125	50	75	750	16	6
22												

## B. E. (Mechanical) (2015 Course) Semester – II

Code	Subject	Teaching Scheme Hrs / week			Examination Scheme					Total Marks	Credits	
		Lecture	Tut	Pract	In Sem	End Sem	TW	PR	OR		Theory	TW/ Pr/OR
402047	Energy Engineering	3	-	2	30	70	25	-	25	150	3	1
402048	Mechanical System Design	4	-	2	30 (1.5 Hrs)	70 (3 Hrs)	25	-	50	175	4	1
402049	Elective-III	3	-	2	30	70	25	-	-	125	3	1
402050	Elective-IV	3	-	-	30	70	-	-	-	100	3	-
402051	Project-II	-	-	12	-	-	100	-	100	200	-	6
Total		13	-	18	120	280	175	-	175	750	13	9
22												

Elective – I		Elective – II	
Code	Subject	Code	Subject
402044 A	Finite Element Analysis ✓	402045 A	Automobile Engineering ✓
402044 B	Computational Fluid Dynamics	402045 B	Operation Research
402044 C	Heating Ventilation and Air Conditioning ✓	402045 C	Energy Audit and Management ✓
		402045 D	Open Elective**

Elective – III		Elective – IV	
Code	Subject	Code	Subject
402049 A	Tribology ✓	402050 A	Advanced Manufacturing Processes ✓
402049 B	Industrial Engineering ✓	402050 B	Solar & Wind Energy
402049 C	Robotics	402050 C	Product Design and Development ✓
		402050 D	Open Elective**





**Savitribai Phule Pune University**  
**Board of Studies - Automobile and Mechanical Engineering**  
**Undergraduate Program - Mechanical Engineering (2019 pattern)**

Course Code	Course Name	Teaching Scheme (Hrs./week)			Examination Scheme and Marks							Credit				
		TH	PR	TUT	ISE	TW	PR	OR	Total	TH	PR	TUT	Total			
														TH	PR	TUT
<b>Semester-V</b>																
302041	Numerical & Statistical Methods	3	-	1	30	70	25	-	-	-	-	125	3	-	1	4
302042	Heat & Mass Transfer	3	2	-	30	70	-	50	-	-	-	150	3	1	-	4
302043	Design of Machine Elements	3	2	-	30	70	-	-	25	125	3	1	-	-	-	4
302044	Mechatronics	3	2	-	30	70	-	-	25	125	3	1	-	-	-	4
302045	Elective I	3	-	-	30	70	-	-	-	100	3	-	-	-	-	3
302046	Digital Manufacturing Laboratory	-	2	-	-	-	50	-	-	50	-	1	-	-	-	1
302047	Skill Development	-	2	-	-	-	25	-	-	25	-	1	-	-	-	1
302048	Audit course - V <sup>5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>Total</b>	<b>15</b>	<b>10</b>	<b>1</b>	<b>150</b>	<b>350</b>	<b>100</b>	<b>50</b>	<b>50</b>	<b>700</b>	<b>15</b>	<b>5</b>	<b>1</b>	<b>21</b>		
<b>Semester-VI</b>																
302049	Artificial Intelligence & Machine Learning	3	2	-	30	70	-	-	25	125	3	1	-	-	-	4
302050	Computer Aided Engineering	3	2	-	30	70	-	50	-	150	3	1	-	-	-	4
302051	Design of Transmission Systems	3	2	-	30	70	-	-	25	125	3	1	-	-	-	4
302052	Elective II	3	-	-	30	70	-	-	-	100	3	-	-	-	-	3
302053	Measurement Laboratory	-	2	-	-	-	50	-	-	50	-	1	-	-	-	1
302054	Fluid Power & Control Laboratory	-	2	-	-	-	50	-	-	50	-	1	-	-	-	1
302055	Internship/Mini project *	-	4	-	-	-	100	-	-	100	-	4	-	-	-	4
302056	Audit course - VI <sup>5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>Total</b>	<b>12</b>	<b>14</b>	<b>-</b>	<b>120</b>	<b>280</b>	<b>200</b>	<b>50</b>	<b>50</b>	<b>700</b>	<b>12</b>	<b>9</b>	<b>1</b>	<b>21</b>		
<b>Elective-I</b>																
302045-A	Advanced Forming & Joining Processes	302052-A	Composite Materials													
302045-B	Machining Science & Technology	302052-B	Surface Engineering													

**Abbreviations:** TH: Theory, PR: Practical, TUT: Tutorial, ISE: In-Semester Exam, ESE: End-Semester Exam, TW: Term Work, OR: Oral

**Note:** Interested students of TE (Automobile Engineering and Mechanical Engineering) can opt for any one of the audit course from the list of audit courses prescribed by BOS (Automobile and Mechanical Engineering)

**Instructions:**

- Practical/Tutorial must be conducted in FOUR batches per division only.
- Minimum number of Experiments/Assignments in PR/Tutorial shall be carried out as mentioned in the syllabi of respective courses.
- Assessment of tutorial work has to be carried out similar to term-work. The Grade cum marks for Tutorial and Term-work shall be awarded on the basis of continuous evaluation.
- Audit course is mandatory but non-credit course. Examination has to be conducted at the end of Semesters for award of grade at institute level. Grade awarded for audit course shall not be calculated for grade point & CGPA.

