



**KBTCOE**

**MARATHA VIDYA PRASARAK SAMAJ'S**

**KARMAVEER ADV. BABURAO GANPATRAO THAKARE**

**COLLEGE OF ENGINEERING**

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 &  
Approved by AICTE New Delhi - Vide Letter No. : 740-89-32 (E) ET/98  
AISHE Code - C-41622



5 PROGRAMS ARE ACCREDITED BY  
NATIONAL BOARD OF ACCREDITATION



## DEPARTMENT OF INSTRUMENTATION AND CONTROL

### COURSE OUTCOMES AND PROGRAM OUTCOMES

Define the Program specific outcomes

Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs)

<b>PSO1</b>	Students will have a strong foundation in mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyze complex instrumentation problems.
<b>PSO2</b>	Apply instrumentation and control in multidisciplinary domains related to research and entrepreneurship development.
<b>PSO3</b>	Communicate effectively to work as a team with professional ethics for the benefit for society.

### Course Outcomes(COs)

<b>Course Name :</b>	<b>C202</b>	<b>Course Year :</b>	<b>2019-2020</b>
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Course Name	Statements

C202.1	Classify sensors, transducers along with its characteristics.
C202.2	Demonstrate displacement sensors and transducers.
C202.3	Choose suitable sensor for Velocity, Speed, Vibration and Acceleration measurement.
C202.4	Demonstrate force sensors and transducers.
C202.5	Use pressure sensors and transducers for specific applications.
C202.6	Design the temperature sensors such as RTD, thermocouple and LM35 for temperature measurement.

<b>Course Name :</b>	<b>C211</b>	<b>Course Year :</b>	<b>2019-2020</b>
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<b>Course Name</b>	<b>Statements</b>
C211.1	Analyze the logical equations using Boolean algebra, number systems, codes and their conversion.
C211.2	Analyze the digital circuits by using Boolean algebra, K-map, Quine-McClusky technique.
C211.3	Design combinational logic circuits using Logic gates.
C211.4	Demonstrate SR, D, T and JK flip-flop.
C211.5	Design sequential Logic circuits using flip-flops, registers and counters.
C211.6	Design simple applications of digital system.

<b>Course Name :</b>	<b>C3 03</b>	<b>Course Year :</b>	<b>2019-2020</b>
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<b>Course Name</b>	<b>Statements</b>
C303.1	Demonstrate the working of switches, relays and contactors for controlling single/three phase motors.
C303.2	Design electrical circuits for motor forward, reverse, jogging, inching operation.
C303.3	Design pneumatic circuits using 2,3 & 5 way pneumatic valves, motor and cylinders.
C303.4	Design hydraulic circuits using 2 ,3 & 5 way hydraulic valves, motor /cylinders.
C303.5	Select auxiliary components (fuses, circuit breakers, feeders) for particular application.
C303.6	Classify the hazardous area and materials as per NEC standards.

<b>Course Name :</b>	<b>C3 12</b>	<b>Course Year :</b>	<b>2019-2020</b>
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<b>Course Name</b>	<b>Statements</b>
C312.1	Analyze the concepts of system design and packaging standards (NEMA and IP) for the given requirement.
C312.2	Interpret the effect of interferences in system design and ways of minimization.
C312.3	Design given application using single chip analog device (AD620, HCNR200/201,XTR110,AD594/595).
C312.4	Design given application using single chip digital device (IC7107, ICM7217, CD4046, MCT2E).
C312.5	Design of PCB for given specific application.
C312.6	Discuss the concepts of quality, reliability and importance of documentation in system design.

<b>Course Name :</b>	<b>C4 02</b>	<b>Course Year :</b>	<b>2019-2020</b>
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<b>Course Name</b>	<b>Statements</b>
C402.1	Apply objectives of project management for engineering projects.
C402.2	Apply project management skills for better planning, scheduling, execution and monitoring.
C402.3	Execute procurement activities.
C402.4	Analyze Project engineering documents and drawing.
C402.5	Explain project detail engineering (like GA, BOM and MBOM, Cable engineering and cable selection) for applications.
C402.6	Identify the construction and commissioning activities during the project.

<b>Course Name :</b>	<b>C4 10</b>	<b>Course Year :</b>	<b>2019-2020</b>
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<b>Course Name</b>	<b>Statements</b>
C410.1	Identify and describe the classification of robot manipulators and will be able to list manufacturers of robot.
C410.2	Elaborate various characteristics of manipulator arms and will be able to describe various applications of machine vision in robots and will be

	able to select controller for machine vision.
C410.3	Understand robot kinematics, dynamics, simulate robot inverse-kinematics, compare robot programming methods.
C410.4	Demonstrate robot programming methods.
C410.5	Discuss mobile robots control and able to understand path planning.
C410.6	Recognize importance of case studies and will be able to select suitable robot for particular application.

### CO-PO matrices of above selected courses

#### 1 . course name: C202

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202.1	3	2	-	-	-	-	-	-	2	2	-	3
C202.2	3	2	-	-	-	-	-	-	2	2	-	2
C202.3	3	-	-	-	-	-	-	-	2	2	-	-
C202.4	3	-	-	-	-	-	-	-	2	2	-	-
C202.5	3	-	-	-	-	-	-	-	2	2	-	-
C202.6	3	3	2	-	-	-	-	-	2	2	-	3
<b>Average</b>	<b>3.00</b>	<b>2.30</b>	<b>2.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2.00</b>	<b>2.00</b>	<b>0.00</b>	<b>2.67</b>

#### 2 . course name: C211

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C211.1	3	2	-	-	-	-	-	1	1	1	-	2
C211.2	3	3	-	-	-	-	-	1	1	1	-	2
C211.3	3	3	3	2	2	-	-	1	1	1	-	2
C211.4	3	3	-	-	2	-	-	1	1	1	-	2
C211.5	3	3	3	2	2	-	-	1	1	1	-	2
C211.6	2	2	2	-	-	-	-	1	-	1	-	1
<b>Average</b>	<b>2.83</b>	<b>2.67</b>	<b>2.67</b>	<b>2.00</b>	<b>2.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>0.00</b>	<b>1.83</b>

#### 3 . course name: C303

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303.1	3	2	3	-	-	2	-	-	-	-	-	3
C303.2	3	3	2	-	-	3	-	-	-	-	-	3
C303.3	3	3	3	2	-	3	-	-	-	-	-	3
C303.4	3	3	3	2	-	3	-	-	-	-	-	3
C303.5	3	2	-	-	-	2	-	-	-	-	-	3
C303.6	3	-	-	-	-	2	-	-	-	-	-	3
<b>Average</b>	<b>3.00</b>	<b>2.60</b>	<b>2.75</b>	<b>2.00</b>	<b>0.00</b>	<b>2.50</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.00</b>

4 . course name: C312

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C312.1	3	2	-	-	-	-	-	-	-	-	-	2
C312.2	3	2	-	-	-	-	-	-	-	-	-	2
C312.3	3	2	2	-	-	-	-	-	2	-	-	2
C312.4	3	2	2	-	-	-	-	-	2	-	-	2
C312.5	3	2	2	-	2	-	2	-	2	-	-	2
C312.6	3	2	-	-	-	-	-	-	-	-	-	2
<b>Average</b>	<b>3.00</b>	<b>2.00</b>	<b>2.00</b>	<b>0.00</b>	<b>2.00</b>	<b>0.00</b>	<b>2.00</b>	<b>0.00</b>	<b>2.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2.00</b>

5 . course name: C402

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C402.1	-	-	-	-	-	-	-	-	2	-	3	3
C402.2	-	-	-	-	-	-	-	2	3	3	3	3
C402.3	-	-	-	-	-	-	-	2	2	3	3	3
C402.4	3	2	-	2	-	3	2	3	3	3	3	3
C402.5	3	-	-	-	-	-	-	-	2	2	2	2
C402.6	3	-	-	-	-	-	-	-	-	2	3	2

<b>Average</b>	<b>3.00</b>	<b>2.00</b>	<b>0.00</b>	<b>2.00</b>	<b>0.00</b>	<b>3.00</b>	<b>2.00</b>	<b>2.30</b>	<b>2.40</b>	<b>2.60</b>	<b>2.17</b>	<b>2.66</b>
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**6 . course name: C410**

<b>Course</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
C410.1	3	2	-	-	-	-	-	-	-	-	-	2
C410.2	3	2	-	-	-	-	-	-	-	-	-	-
C410.3	3	-	-	-	2	-	-	-	-	-	-	-
C410.4	3	-	-	2	2	-	-	2	-	-	-	-
C410.5	3	-	-	2	-	-	-	-	-	-	-	-
C410.6	3	2	-	-	2	2	-	2	-	-	-	-
<b>Average</b>	<b>3.00</b>	<b>2.00</b>	<b>0.00</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>	<b>0.00</b>	<b>2.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2.00</b>

**1 . Course Name: C202**

<b>Course</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C202.1	2	-	-
C202.2	3	-	-
C202.3	3	-	-
C202.4	3	-	-
C202.5	3	-	-
C202.6	3	2	-
<b>Average</b>	<b>2.83</b>	<b>2.00</b>	<b>0.00</b>

**2 . Course Name: C211**

<b>Course</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C211.1	2	-	1
C211.2	2	-	1
C211.3	2	-	1

C211.4	2	-	1
C211.5	2	-	1
C211.6	2	-	1
<b>Average</b>	<b>2.00</b>	<b>0.00</b>	<b>1.00</b>

### 3 Course Name: C303

Course	PSO1	PSO2	PSO3
C303.1	3	-	-
C303.2	3	-	-
C303.3	3	2	-
C303.4	3	2	-
C303.5	3	-	-
C303.6	3	-	-
<b>Average</b>	<b>3.00</b>	<b>2.00</b>	<b>0.00</b>

### 4. Course Name: C312

Course	PSO1	PSO2	PSO3
C312.1	2	-	-
C312.2	2	-	-
C312.3	2	-	-
C312.4	2	-	-
C312.5	2	-	-
C312.6	2	-	-
<b>Average</b>	<b>2.00</b>	<b>0.00</b>	<b>0.00</b>

### 5. Course Name: C402

Course	PSO1	PSO2	PSO3
C402.1	3	3	-
C402.2	3	3	2
C402.3	3	3	2
C402.4	3	2	3

C402.5	3	-	-
C402.6	3	2	-
<b>Average</b>	<b>3.00</b>	<b>2.60</b>	<b>2.30</b>

**6. Course Name: C410**

<b>Course</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C410.1	3	-	-
C410.2	3	2	-
C410.3	3	-	2
C410.4	3	2	-
C410.5	3	2	-
C410.6	2	2	2
<b>Average</b>	<b>2.83</b>	<b>2.00</b>	<b>2.00</b>

**Program Level Course-PO matrix of all courses INCLUDING first year courses**

<b>Course</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
C101	2	2	--	--	--	--	--	--	1	--	--	1
C102	2	2	--	--	--	1	--	--	1	--	--	1
C103	2	1	--	--	--	--	1	--	1.2	1	1	1
C104	2	2	--	--	--	1	--	--	2	1	--	1
C105	3	2	2	--	2	--	--	--	--	1	--	2
C106	1	--	--	--	--	--	--	--	1	1	--	1
C107	2	2	--	--	--	2	2	2	--	2	--	2
C108	2	2	--	--	--	--	--	--	1	--	--	1
C109	2	2	--	--	--	--	1	--	--	--	--	1
C110	2.5	2	--	2	2	--	--	--	2	2	--	2
C111	2	2	--	--	--	--	--	--	2	1	--	2
C112	2	1	--	--	2	--	--	--	1	1	--	1



C113	--	--	--	--	--	--	--	1	1	1	1	1
C114	2	2	1	--	--	2	2	2	--	2	--	2
C201	2	2	--	--	--	--	--	--	--	--	--	1
C202	3	2.3	2	--	--	--	--	--	2	2	--	2.67
C203	2.5	2	--	2	1	--	--	--	1	1	--	2
C204	3	2	--	2	2	--	--	--	--	--	--	--
C205	2.83	2	1.83	1	--	--	--	--	1	1	--	2
C206	2	2	1.33	1	1.16	1.16	1.5	1	1	1	--	2.16
C207	1	--	--	--	2	2	2	2	2	2	--	2
C208	3	2.2	2	--	--	--	--	--	2	2	--	2.16
C209	3	1.83	2	1.6	2	--	--	--	1	1	--	2
C210	3	2	2	--	2	--	--	2	--	--	--	--
C211	2.83	2.67	2.67	2	2	--	--	1	1	1	--	1.83
C212	3	2	--	--	--	--	--	--	--	--	--	2
C213	--	--	--	--	2	--	--	3	3	3	--	3
C214	3	1.33	1.33	--	1.67	1	--	--	2	1	--	1.5
C215	1	--	--	--	2	2	2	2	2	2	--	2
C301	3	2	2	2	2	--	--	1	2	2	--	2
C302	3	3	--	3	2	2	--	2	2	2	--	2
C303	3	2.6	2.75	2	--	2.5	--	--	--	--	--	3
C304	2.5	2.17	2.6	2	2	--	--	--	--	2	--	2
C305	--	--	--	--	--	--	--	3	2	3	2	2
C306	2	1	1	2	2.5	--	--	2	--	--	--	--
C307	3	2.5	--	--	2	--	--	3	2	3	--	3
C308	1	--	--	--	2	2	2	2	2	2	--	2
C309	2.5	2.4	2	--	2	--	--	--	2	2	--	2
C310	2.67	3	2.5	2	2.67	--	--	1	2	2	--	2
C311	2.67	2.25	2	2	--	2	2	--	--	--	--	2

C312	3	2	2	--	2	--	2	--	2	2	--	2
C313	3	2.75	--	2	2	2	--	2	2	2	--	2
C314	2.33	2	2	--	2	--	--	2	3	3	3	2.8
C315	1	--	--	--	2	2	2	2	2	2	--	2
C401	3	2.6	2.16	1.5	2.4	--	--	1	1	1	--	2
C402	3	2	--	2	--	3	2	2.3	2.4	2.6	2.17	2.66
C403	3	2	--	2	2	--	--	2	--	--	--	--
C404A	2.3	2	2	2	3	2	2	--	--	--	--	3
C405A	2	2	--	--	2	2	1.83	1	1	1	--	2.33
C406	3	3	3	2	3	2.8	2.66	3	3	3	--	3
C407	1	--	--	--	2	2	2	2	2	2	--	2
C408	3	2	1	1	2	1	1	1	1	1	--	1
C409	3	3	3	--	3	3	--	--	--	--	--	3
C410A	3	2	--	2	2	2	--	2	--	--	--	--
C411A	2	2	2	2	2	1.12	2	1	1	1	2	2
C412	3	2	3	2	2.33	3	2	3	3	3	2.66	3
C413	3	2	2	--	2.66	--	--	3	3	3	--	3
C414	1	--	--	--	2	2	2	2	2	2	--	2

**Program Level Course-PSO matrix of all courses INCLUDING first year courses**

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Course	PSO1	PSO2	PSO3
C101	1	--	1
C102	1	--	--
C103	1	--	--
C104	--	--	1
C105	1	--	--
C106	--	--	--
C107	--	--	--

C108	1	--	1
C109	1	--	--
C110	1	--	--
C111	1	--	1
C112	--	--	--
C113	1	--	1
C114	--	--	--
C201	1	--	--
C202	2.83	2	--
C203	3	--	1
C204	3	--	--
C205	1.67	--	1
C206	1.67	1.75	1
C207	1	2	2
C208	3	--	1
C209	2	--	1
C210	3	2	--
C211	2	--	1
C212	3	2	--
C213	--	--	3
C214	2	2	--
C215	1	2	2
C301	2	1	1
C302	2	2	1
C303	3	2	--
C304	2.33	--	1
C305	2	2	2
C306	2	--	2

C307	3	2	3
C308	1	2	2
C309	2	--	1
C310	2	1	1
C311	2.67	1.6	--
C312	2	--	--
C313	2	2	1
C314	2.33	--	2
C315	1	2	2
C401	3	1	1
C402	3	2.6	2.3
C403	3	2	--
C404A	3	2	--
C405A	2	2	1
C406	2.66	3	3
C407	1	2	2
C408	2	1	1
C409	3	2	--
C410A	2.83	2	2
C411A	1.8	2	1
C412	3	3	3
C413	3	--	3
C414	1	2	2

### Attainment of Course Outcomes

Course Code: C309 Course Name: Digital Signal Processing

		External Assessment	Internal Assessment	Indirect Assessment
			Unit Test	Course Exit Survey

Seat No.	Name of Student	University TH Exam	University PR Exam	CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
T150294601	Aher Pratiksha Dinkar	45	39	9	8	7	9	8	0	3	2	3	3	3	3
T150294602	Ahire Pranav Vikram	74	45	9	9	7	9	10	7	3	3	3	3	2	2
T150294603	Ahire Priyanka Kiran	44	27	--	--	7	9	8	8	3	2	3	2	3	2
T150294604	Bhagwat Rushikesh Arvind	61	43	9	10	8	9	9	7	3	3	3	2	2	3
T150294605	Bhandare Satyam Bhagwan	25	26	--	--	6	9	7	6	3	3	3	3	3	3
T150294606	Gadhawe Suyash Digambar	48	38	9	9	7	9	8	8	3	3	2	2	2	2
T150294607	Jadhav Damini Suresh	81	45	9	9	9	4	9	8	2	2	2	2	2	1
T150294608	Jadhav Rutuja Bhika	55	36	7	8	7	9	7	6	3	2	2	3	2	2
T150294609	Joshi Nishant Nandkumar	55	41	8	9	6	9	9	8	2	3	2	3	2	2
T150294610	Joshi Prajwal Pramod	57	40	9	9	6	6	9	0	3	2	2	3	3	3
T150294611	Karanjkar Bhushan Mohan	55	42	9	9	7	9	8	7	3	3	3	3	3	3
T150294612	Khurdal Akanksha Ramnath	30	26	7	4	0	2	8	0	--	--	--	--	--	--
T150294613	Narkhede Mayuri Anil	59	41	9	9	7	9	10	8	3	2	2	2	2	1
T150294615	Rai Ankit Shreekant	45	30	9	4	6	9	8	0	3	2	3	3	2	2
T150294616	Rao Aishwarya Narayan	53	39	7	9	7	3	8	6	2	2	2	2	3	2
T150294617	Shelke Yash Sharad	78	44	9	6	7	6	8	7	3	3	3	3	3	3
T150294618	More Shirish Vasantrao	64	41	9	7	5	7	8	8	3	3	3	3	3	3
T150294620	Thapa Urmila Bhimbahadur	52	38	3	8	6	0	7	7	3	3	2	3	3	3
Number of students appeared for the exam		18	18	16	18	18	18	18	18	17	17	17	17	17	17
Target value		50	30	6	6	6	6	6	6	--	--	--	--	--	--
Number of Students scoring more than target value		12	15	15	14	16	14	18	14	--	--	--	--	--	--
Percentage of Students scoring more than target value		66.67	83.33	93.75	87.50	88.89	77.78	100	77.78	94.12	84.31	84.31	88.24	84.31	78.43
Attainment Level		2	3	3					3						

## Course Outcome Attainment

### External Assessment

Theory (%)						Oral / Practical (%)						Term Work (%)					
CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
66.67	66.67	66.67	66.67	66.67	66.67	83.33	83.33	83.33	83.33	83.33	83.33	NA	NA	NA	NA	NA	NA

### Internal Assessment

Unit Test (%)						Term Work (%)					
CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
93.75	87.50	88.89	77.78	100	77.78	NA	NA	NA	NA	NA	NA

### Indirect Assessment

Course Exit Survey (%)					
CO1	CO2	CO3	CO4	CO5	CO6
94.12	84.31	84.31	88.24	84.31	78.43

### CO attainment by external assessment

External assessment tool	CO Attainment
TH exam	2
OR exam	3
Average	2.5

### CO attainment by internal assessment

Internal assessment tool	CO Attainment
Unit test	3
Term work	NA
Average	3

Direct CO attainment is then computed as:

$$= 0.8 \times \text{CO Attainment Level in University Examination} + 0.2 \times \text{CO Attainment Level in Internal Assessment}$$

$$= 0.8 \times 2.5 + 0.2 \times 3$$

$$= 2.6$$

**CO attainment by course exit survey**

Indirect assessment tool	CO Attainment
Course exit survey	3

Overall CO attainment is then computed as:

$$= 0.9 \times \text{Direct CO Attainment} + 0.1 \times \text{Indirect CO Attainment}$$

$$= 0.9 \times 2.6 + 0.1 \times 3$$

$$= 2.64$$

**Record the attainment of Course Outcome of all courses with respect to set attainment levels**

**Academic Year:2019-2020**

**Course Outcome Attainment:**

**Table : External Assessment**

Course Code	Attainment Level -3	Theory (%)						Oral / Practical (%)						Term Work (%)					
		CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
C101	70	53.8	53.8	53.8	53.8	53.8	53.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C102	70	65.38	65.38	65.38	65.38	65.38	65.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C103	70	65.38	65.38	65.38	65.38	65.38	65.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C104	70	61.54	61.54	61.54	61.54	61.54	61.54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C105	70	50	50	50	50	50	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C106	70	NA	NA	NA	NA	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C107	70	NA	NA	NA	NA	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C108	70	80.77	80.77	80.77	80.77	80.77	80.77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C109	70	46.15	46.15	46.15	46.15	46.15	46.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C110	70	76.92	76.92	76.92	76.92	76.92	76.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C111	70	76.92	76.92	76.92	76.92	76.92	76.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

C212	70	100	100	100	100	100	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C213	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C214	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C215	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C301	70	61.11	61.11	61.11	61.11	61.11	61.11	72.2	72.2	72.2	72.2	72.2	72.2	NA	NA	NA	NA	NA	NA
C302	70	61.11	61.11	61.11	61.11	61.11	61.11	44.4	44.4	44.4	44.4	44.4	44.4	NA	NA	NA	NA	NA	NA
C303	70	77.78	77.78	77.78	77.78	77.78	77.78	77.7	77.7	77.7	77.7	77.7	77.7	NA	NA	NA	NA	NA	NA
C304	70	66.67	66.67	66.67	66.67	66.67	66.67	50	50	50	50	50	50	NA	NA	NA	NA	NA	NA
C305	70	61.11	61.11	61.11	61.11	61.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C306	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C307	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C308	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C309	70	66.67	66.67	66.67	66.67	66.67	66.67	83.3	83.3	83.3	83.3	83.3	83.3	NA	NA	NA	NA	NA	NA
C310	70	61.11	61.11	61.11	61.11	61.11	61.11	72.2	72.2	72.2	72.2	72.2	72.2	NA	NA	NA	NA	NA	NA
C311	70	61.11	61.11	61.11	61.11	61.11	61.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C312	70	77.78	77.78	77.78	77.78	77.78	77.78	88.8	88.8	88.8	88.8	88.8	88.8	NA	NA	NA	NA	NA	NA
C313	70	83.33	83.33	83.33	83.33	83.33	83.33	94.4	94.4	94.4	94.4	94.4	94.4	NA	NA	NA	NA	NA	NA
C314	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C315	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C401	70	58.06	58.06	58.06	58.06	58.06	58.06	87.1	87.1	87.1	87.1	87.1	87.1	NA	NA	NA	NA	NA	NA
C402	70	83.87	83.87	83.87	83.87	83.87	83.87	54.8	54.8	54.8	54.8	54.8	54.8	NA	NA	NA	NA	NA	NA
C403	70	22.58	22.58	22.58	22.58	22.58	22.58	NA	NA	NA	NA	NA	NA	77.4	77.4	77.4	77.4	77.4	77.4
C404A	70	93.55	93.55	93.55	93.55	93.55	93.55	100	100	100	100	100	100	NA	NA	NA	NA	NA	NA
C405A	70	96.77	96.77	96.77	96.77	96.77	96.77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C406	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	100	100	100	100	100
C407	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C408	70	83.87	83.87	83.87	83.87	83.87	83.87	61.2	61.2	61.2	61.2	61.2	61.2	NA	NA	NA	NA	NA	NA
C409	70	93.55	93.55	93.55	93.55	93.55	93.55	73.3	73.3	73.3	73.3	73.3	73.3	NA	NA	NA	NA	NA	NA
C410A	70	90.32	90.32	90.32	90.32	90.32	90.32	86.2	86.2	86.2	86.2	86.2	86.2	NA	NA	NA	NA	NA	NA
C411A	70	87.63	87.63	87.63	87.63	87.63	87.63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C412	70	NA	NA	NA	NA	NA	NA	82.7	82.7	82.7	82.7	82.7	82.7	100	100	100	100	100	100
C413	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	100	100	100	100	100
C414	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



**Table : Internal Assessment**

Course Code	Attainment Level - 3	Unit Test (%)						Term work (%)					
		CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
C101	80	62.5	37.5	70.83	58.33	66.67	66.67	96.15	92.31	96.15	96.15	96.15	96.15
C102	80	30.43	30.43	63.16	89.47	88.24	94.12	96.15	96.15	96.15	96.15	NA	NA
C103	80	30.43	30.43	90.48	57.14	56.52	39.12	100	100	100	100	100	100
C104	80	12.5	25	58.33	25	21.74	60.87	92.31	88.46	96.15	88.46	96.15	96.15
C105	80	91.67	8.33	43.48	26.09	22.73	27.27	100	100	100	100	100	100
C106	80	-	-	-	-	-	-	96.15	96.15	96.15	96.15	-	-
C107	80	80.95	38.1	95.45	68.18	-	-	96.15	96.15	96.15	88.46	-	-
C108	80	35	55	40	90.91	95.45	95.45	92.31	92.31	92.31	92.31	92.31	92.31
C109	80	58.33	23.53	84	41.67	87.5	52.17	92.31	92.31	92.31	96.15	NA	NA
C110	80	59.09	31.82	95	85	90.91	68.18	96.2	96.2	96.2	96.2	96.2	96.2
C111	80	83.33	9.09	89.47	89.47	68.42	100	100	100	100	NA	100	100
C112	80	NA	NA	95	75	94.74	65	100	100	100	100	100	100
C113	80	-	-	-	-	-	-	92.31	92.31	92.31	-	-	-
C114	80	61.54	57.69	76.92	88.46	-	-	96.15	92.31	92.31	92.31	-	-
C201	80	73.9	75	58.8	72.9	56.2	61.29	100	97.5	100	100	100	52.5
C202	80	87.5	62.5	12.5	60.53	31.58	44.76	NA	NA	NA	NA	NA	NA
C203	80	7.14	14.19	63.64	2.5	30	10	NA	NA	NA	NA	NA	NA
C204	80	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA

**Table : Indirect Assessment**

Course Code	Attainment Level-3	Course Exit Survey (%)					
		CO1	CO2	CO3	CO4	CO5	CO6
C101	80	89.85	85.50	92.75	81.15	92.75	95.95
C102	80	94.74	94.74	92.98	89.47	85.96	89.47
C103	80	100	98.25	100	98.25	98.25	94.12
C104	80	91.33	81	87	87	78.33	90
C105	80	82.61	86.96	76.81	79.71	82.61	81.16
C106	80	NA	NA	NA	NA	-	-
C107	80	88	85.33	88	88	-	-
C108	80	86.36	84.85	83.33	81.82	83.33	72.73
C109	80	91.3	85.51	85.51	85.51	78.26	92.75
C110	80	90.91	87.88	89.39	84.85	84.85	81.82
C111	80	95.83	91.67	87.50	81.25	85.42	81.25
C112	80	100	100	100	100	100	100
C113	80	NA	NA	NA	-	-	-
C114	80	90.91	84.85	90.91	86.36	-	-
C201	80	81.33	78.67	82.67	84	76	82.67
C202	80	87.65	82.72	81.48	81.19	85.19	88.89
C203	80	91.67	88.33	89.17	90.83	87.50	89.17
C204	80	80.21	80.21	76.04	80.21	77.08	77.08
C205	80	82.50	78.33	80	86.67	82.50	80.83
C206	80	89.17	83.33	83.33	84.17	83.33	85.83
C207	80	NA	NA	NA	NA	NA	NA
C208	80	93.33	90	89.17	84.17	84.17	88.33
C209	80	85.96	85.09	82.46	87.72	77.19	77.19
C210	80	83.33	80.56	85.19	75	73.15	75.93
C211	80	88.24	94.12	89.22	84.31	81.37	80.39
C212	80	91.67	88.89	87.96	87.96	86.11	83.33
C213	80	94.17	86.67	90	89.17	91.67	88.33
C214	80	100	100	100	100	100	100
C215	80	NA	NA	NA	NA	NA	NA
C301	80	94.12	92.16	94.12	92.16	90.20	86.27
C302	80	89	79.67	81.34	79.67	83.34	83.34
C303	80	79.63	85.19	87.04	81.48	77.78	85.19
C304	80	81.48	81.48	96.30	74.07	90.74	90.74

C305	80	94.44	85.19	83.33	85.19	85.19	81.48
C306	80	76.47	66.67	70.59	70.59	72.55	68.63
C307	80	91	85	81.66	81.66	78.66	88
C308	80	NA	NA	NA	NA	NA	NA
C309	80	94.12	84.31	84.31	88.24	84.31	78.43
C310	80	83.33	100	100	83.33	83.33	100
C311	80	89.74	87.18	92.31	84.62	82.05	89.74
C312	80	87.04	92.59	85.19	79.63	77.78	81.48
C313	80	90.66	87	81.33	85.33	87	89
C314	80	-	-	-	-	-	-
C315	80	NA	NA	NA	NA	NA	NA
C401	80	82.14	84.52	86.90	82.14	78.57	84.52
C402	80	92	85.33	90	86.66	86.66	86
C403	80	84.72	88.89	72.22	73.61	86.11	77.78
C404A	80	84.95	86.02	89.25	86.02	82.80	88.17
C405A	80	91.34	91.34	92.34	90.34	91.34	96.67
C406	80	89.74	91.02	79.48	NA	NA	NA
C407	80	NA	NA	NA	NA	NA	NA
C408	80	91.03	91.03	89.74	89.74	89.74	91.03
C409	80	86.67	93.1	80	73.33	-	-
C410A	80	94.25	94.25	80.46	97.7	72.41	85.06
C411A	80	91.34	91.34	92.34	90.34	91.34	96.67
C412	80	NA	NA	NA	97.44	89.74	96.15
C413	80	NA	NA	NA	NA	NA	NA
C414	80	NA	NA	NA	NA	NA	NA

Table : Overall CO Attainment A.Y. 2019-2020

Course Code	Direct CO Attainment		Direct CO (100%)	Indirect CO Attainment	Overall CO Attainment
	External (80%)	Internal (20%)			
C101	1	2	1.2	3	1.38
C102	2	2	2	3	2.1
C103	2	1.5	1.9	3	2.01
C104	2	1.5	1.9	3	2.01

C105	1	1.5	1.1	3	1.29
C106	NA	3	NA	NA	3
C107	NA	2.5	2.5	3	2.55
C108	3	2	2.8	3	2.82
C109	0	1.5	0.3	2	0.57
C110	3	2.5	2.9	3	2.91
C111	3	2.5	2.9	3	2.91
C112	3	3	3	3	3
C113	NA	3	NA	NA	3
C114	NA	2.5	2.5	3	2.55
C201	0	2	0.4	3	0.66
C202	2	0	1.6	3	1.74
C203	3	0	2.4	3	2.46
C204	1	0	0.8	3	1.02
C205	2	1.5	1.9	3	2.01
C206	NA	3	3	3	3
C207	NA	3	3	NA	3
C208	3	1	2.6	3	2.64
C209	3	3	3	3	3
C210	3	3	3	3	3
C211	2	0	2.2	3	2.28
C212	3	0	2.4	3	2.46
C213	NA	3	3	3	3
C214	NA	3	3	3	3
C215	NA	3	3	NA	3
C301	2.5	0	2	3	2.1
C302	0.5	0	0.4	3	0.66
C303	2	0	1.6	3	1.74
C304	1.5	0	1.2	3	1.38
C305	2	0	1.6	3	1.74
C306	NA	3	3	2	2.9
C307	NA	3	3	3	3
C308	NA	3	3	NA	3
C309	2.5	3	2.6	3	2.64
C310	2.5	0	2.6	3	2.46
C311	1	0	1	3	1.2
C312	3	1	2.6	3	2.64

C313	3	2	2.8	3	2.82
C314	NA	3	3	-	3
C315	NA	3	3	NA	3
C401	1.5	0	1.2	3	1.38
C402	1.5	0	1.2	3	1.38
C403	1	0	0.8	3	1.02
C404A	3	0	2.4	3	2.46
C405A	3	1	2.6	3	2.64
C406	3	NA	3	3	3
C407	NA	3	3	NA	3
C408	2	3	2.2	3	2.28
C409	2.5	0	2	3	2.1
C410A	3	3	3	3	3
C411A	3	3	3	3	3
C412	3	NA	3	3	3
C413	3	NA	3	NA	3
C414	NA	3	3	NA	3

### Attainment of Program Outcomes and Program Specific Outcomes

#### Results of evaluation of PO&PSO

##### PO Attainment (AY 2019-2020)

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	0.92	0.92	--	--	--	--	--	--	0.46	--	PO11	0.46
C102	1.4	1.4	--	--	--	0.7	--	--	0.7	--	PO11	0.7
C103	1.34	0.67	--	--	--	--	0.67	--	0.8	0.67	0.67	0.67
C104	1.34	1.34	--	--	--	0.67	--	--	1.34	0.67	--	0.67
C105	1.29	0.86	0.86	--	0.86	--	--	--	--	0.43	--	0.86
C106	1	PO2	--	--	--	1	--	--	1	1	--	1
C107	1.7	1.7	--	--	--	1.7	1.7	1.7	--	1.7	--	1.7
C108	1.88	1.88	--	--	--	--	--	--	0.94	--	--	0.94
C109	0.38	0.38	--	--	--	--	0.19	--	--	--	--	0.19

C110	2.43	1.94	--	1.94	1.94	--	--	--	1.94	1.94	--	1.94
C111	1.94	1.94	--	--	--	--	--	--	1.94	0.97	--	1.94
C112	2	1	--	--	2	--	--	--	1	1	--	1
C113	--	--	--	--	--	--	--	1	1	1	1	1
C114	1.7	1.7	0.85	--	--	1.7	1.7	1.7	--	1.7	--	1.7
C201	0.44	0.44	--	--	--	--	--	--	--	--	--	0.22
C202	1.74	1.33	1.64	--	--	--	--	--	1.16	1.16	--	1.55
C203	2.05	1.64	--	1.64	0.82	--	--	--	0.82	0.82	--	1.64
C204	1.02	0.68	--	0.68	0.68	--	--	--	--	--	--	--
C205	1.9	1.34	1.23	0.67	--	--	--	--	0.67	0.67	--	1.34
C206	2	2	1.33	1	1.16	1.16	1.5	1	1	1	--	2.16
C207	1	--	--	--	2	2	2	2	2	2	--	2
C208	2.64	1.94	1.76	--	--	--	--	--	1.76	1.76	--	1.9
C209	3	1.83	2	1	2	--	--	--	1	1	--	2
C210	3	2	2	--	2	--	--	2	--	--	--	--
C211	2.15	2.03	2.03	1.52	1.52	--	--	0.76	0.76	0.76	--	1.39
C212	2.46	1.64	--	--	--	--	--	--	--	--	--	1.64
C213	--	--	--	--	2	--	--	3	3	3	--	3
C214	3	1.33	1.33	--	1.67	1	--	--	2	1	--	1.5
C215	1	--	--	--	2	2	2	2	2	2	--	2
C301	2.1	1.4	1.4	1.4	1.4	--	--	0.7	1.4	1.4	--	1.4
C302	0.66	0.66	--	0.66	0.44	0.44	--	0.44	0.44	0.44	--	0.44
C303	1.74	1.5	1.59	1.16	--	1.45	--	--	--	--	--	1.74
C304	1.15	1	1.2	0.92	0.92	--	--	--	--	0.92	--	0.92
C305	--	--	--	--	--	--	--	1.74	1.16	1.74	1.16	1.16
C306	1.93	0.97	0.97	1.93	2.42	--	--	1.93	--	--	--	--
C307	3	2.5	--	--	2	--	--	3	2	3	--	3
C308	1	--	--	--	2	2	2	2	2	2	--	2

C309	2.2	2.11	1.76	--	1.76	--	--	--	1.76	1.76	--	1.76
C310	2.35	2.64	2.2	1.76	2.35	--	--	0.88	1.76	1.76	--	1.76
C311	1.07	0.9	0.8	0.8	--	0.8	0.8	--	--	--	--	0.8
C312	2.64	1.76	1.76	--	1.76	--	1.76	--	1.76	1.76	--	1.76
C313	2.82	2.58	--	1.88	1.88	1.88	--	1.88	1.88	1.88	--	1.88
C314	2.33	2	2	--	2	--	--	2	3	3	3	2.8
C315	1	--	--	--	2	2	2	2	2	2	--	2
C401	1.38	1.23	1	0.69	1.1	--	--	0.46	0.46	0.46	--	0.92
C402	1.38	0.92	--	0.92	--	1.38	0.92	1.06	1.1	1.2	1	1.22
C403	1.02	0.68	--	0.68	0.68	--	--	0.68	--	--	--	--
C404A	1.88	1.64	1.64	1.64	2.46	1.64	1.64	--	--	--	--	2.46
C405A	1.76	1.76	--	--	1.76	1.76	1.61	0.88	0.88	0.88	--	2.05
C406	3	3	3	2	3	2.8	2.66	3	3	3	2.33	3
C407	1	--	--	--	2	2	2	2	2	2	--	2
C408	2.28	1.52	0.76	0.76	1.52	0.76	0.76	0.76	0.76	0.76	--	0.76
C409	2.1	2.1	2.1	--	2.1	2.1	--	--	--	--	--	2.1
C410A	3	2	--	2	2	2	--	2	--	--	--	--
C411A	2	2	2	2	2	1.12	2	1	1	1	2	2
C412	3	2	3	2	2.33	3	2	3	3	3	2.66	3
C413	3	2	2	--	2.66	--	--	3	3	3	--	3
C414	1	--	--	--	2	2	2	2	2	2	--	2

**PO Attainment Level (AY 2019-20)**

<b>Course</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
CO Attainment	2.02	1.70	1.78	1.56	1.94	1.78	1.74	1.85	1.74	1.74	1.89	1.79
Direct Attainment	1.83	1.56	1.64	1.32	1.77	1.58	1.60	1.66	1.52	1.52	1.73	1.60
InDirect Attainment	2.80	2.28	2.32	2.50	2.64	2.60	2.32	2.63	2.64	2.60	2.52	2.56

**PSO Attainment (AY 2019-2020)**

<b>Course</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C101	0.46	--	0.46
C102	0.7	--	--
C103	0.67	--	--
C104	--	--	0.67
C105	0.43	--	--
C106	--	--	--
C107	--	--	--
C108	0.94	--	0.94
C109	0.19	--	--
C110	0.97	--	--
C111	0.97	--	0.97
C112	--	--	--
C113	1	--	1
C114	--	--	--
C201	0.22	--	--
C202	1.64	1.16	--
C203	2.46	--	0.82
C204	1.02	0.68	--
C205	1.12	--	0.67
C206	1.67	1.75	1
C207	1	2	2
C208	2.64	--	0.88
C209	2	--	1
C210	3	2	--



C211	1.52	--	0.76
C212	2.46	1.64	--
C213	--	--	3
C214	2	2	--
C215	1	2	2
C301	1.4	0.7	0.7
C302	0.44	0.44	0.22
C303	1.74	1.16	--
C304	1.07	--	0.46
C305	1.16	1.16	1.16
C306	1.93	--	1.93
C307	3	2	3
C308	1	2	2
C309	1.76	--	0.88
C310	1.76	0.88	0.88
C311	1.06	0.64	--
C312	1.76	--	--
C313	1.88	1.88	0.94
C314	2.33	--	2
C315	--	2	2
C401	1.38	0.46	0.46
C402	1.38	1.2	1.06
C403	1.02	0.68	--
C404A	2.46	1.64	--
C405A	1.76	1.76	0.88
C406	2.66	3	3
C407	1	2	2
C408	1.52	0.76	0.76
C409	2.1	1.4	--

C410A	2.83	2	2
C411A	1.8	2	1
C412	3	3	3
C413	3	--	3
C414	1	2	2

**PSO Attainment Level (AY 2019-20)**

Course	PSO1	PSO2	PSO3
CO Attainment	1.77	1.81	1.66
Direct Attainment	1.55	1.55	1.39
InDirect Attainment	2.63	2.83	2.75

**PO Attainment (AY 2020-21)**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	2	2	--	--	--	--	--	--	1	--	--	1
C102	2	2	--	--	--	1	--	--	1	--	--	1
C103	2	1	--	--	--	--	1	--	1.2	1	1	1
C104	2	2	--	--	--	1	--	--	2	1	--	1
C105	2.9	1.93	1.93	--	1.93	--	--	--	--	0.96	--	1.93
C106	0.96	--	--	--	--	0.96	--	--	0.96	0.96	--	0.96
C107	2	2	----	---	----	2	2	2	----	2	----	2
C108	1.94	1.94	--	--	--	--	--	--	0.97	--	--	0.97
C109	2	2	--	--	--	--	1	--	--	--	--	1
C110	2.42	1.93	-	1.93	1.93	-	-	-	1.93	1.93	-	1.93
C111	1.75	1.75	--	--	--	--	--	--	1.75	0.87	--	1.75
C112	2	1	--	--	2	--	--	--	1	1	--	1
C113	--	--	--	--	--	--	--	0.67	0.67	0.67	0.67	0.67

C114	1.4	---	---	---	---	1.4	2.1	2.1	---	1.4	---	1.4
C201	2.82	1.88	--	--	--	--	--	--	--	--	--	0.94
C202	2.64	1.76	-	1.76	-	-	-	-	-	1.76		1.76
C203	3	3	-	2	2	-	-	1	-	1	-	-
C204	1.96	1.57	--	1.57	--	--	--	--	--	1.57	--	1.57
C205	2.76	2.39	2.53	1.84	--	2.3	--	--	--	---	--	2.76
C206	1.8	2.2	1.8	1	3					2		1
C207	--	--	--	--	1.4	--	--	2.1	2.1	2.1	--	2.1
C208	--	--	--	--	0.66	0.66	0.66	0.66	0.66	0.66	--	0.66
C209	2.82	1.88	-	0.94	1.88	-	-	-	0.94	0.94	-	1.88
C210	2.64	--	--	1.76	--	--	--	--	--	-	--	1.76
C211	1.62	1.16	1.16	-	-	-	-	-	1.16	1.16	-	1.16
C212	2.91	2.91	1.94	1.94	1.94	-	-	-	-	-	-	-
C213	2.19	-	-	1.88	1.88	-	-	-	-	-	-	-
C214	2	2	2	2	2	2	2	2	2	2	2	2
C215	--	--	--	--	0.66	--	0.66	0.66	0.66	0.66	--	0.66
C301	2.64	1.76	1.76	1.76	1.76	--	--	0.88	1.76	1.76	--	1.76
C302	1.74	1.74	-	1.74	1.16	1.16	-	1.16	1.16	1.16	-	1.16
C303	2.59	2.24	2.37	1.72	--	2.15	--	--	--	---	--	2.59
C304	2.05	1.78	2.13	1.64	1.64	-	-	-	-	1.64	-	1.64
C305	-	-	-	-	-	-	-	2.82	1.88	2.82	1.88	1.88
C306	2	1.33	0.67	-	2	-	-	-	-	-	-	1.33
C307	3	2.5	-	-	2	-	-	3	2	3	-	3
C308	--	--	--	--	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
C309	2.5	2.4	2	--	2	--	--	--	2	2	--	2
C310	1.71	1.92	1.6	1.28	1.71	--	--	0.64	1.28	1.28	0	1.28
C311	2.67	2.25	2	2	--	2	2	--	--	--	--	2
C312	2.46	1.64	1.64	--	1.64	--	1.64	--	1.64	1.64	--	1.64
C313	2.18	1.99	--	1.45	1.45	1.45	--	1.45	1.45	1.45	--	1.45

C314	2.33	2	2	--	2	--	--	2	3	3	3	2.8
C315	--	--	--	--	0.66	0.66	0.66	0.66	0.66	0.66	--	0.66
C401	1.56	1.39	1.13	0.78	1.25	--	--	0.52	0.52	0.52	--	1.04
C402	1.92	1.28	-	1.28	--	1.92	1.28	1.47	1.54	1.66	1.39	1.7
C403	2.89	1.92	-	1.92	1.92	--	--	1.92	--	--	--	--
C404A	2.26	1.96	1.96	1.96	2.95	1.96	1.96	--	--	--	--	2.95
C405A	1.64	1.64	--	--	1.64	1.64	1.5	0.82	0.82	0.82	--	1.91
C406	3	3	3	2	3	2.67	2.33	3	3	3	2.33	3
C407	--	--	--	--	0.66	0.66	0.66	0.66	0.66	0.66	--	0.66
C408	2.46	1.64	0.82	0.82	1.64	0.82	0.82	0.82	0.82	0.82	--	0.82
C409	1.86	1.86	1.86	--	1.86	1.86	--	--	--	--	--	1.86
C410A	1.74	1.16	--	--	--	--	--	--	--	0.85	--	1.16
C411A	2	2	2	2	2	1.12	2	1	1	1	2	2
C412	1.65	1.1	1.65	1.1	1.28	1.65	1.1	1.65	1.65	1.65	1.47	1.65
C413	3	2	2	--	2.66	--	--	3	3	3	--	3
C414	--	--	--	--	0.66	0.66	0.66	0.66	0.66	0.66	--	0.66

**PO Attainment Level (AY 2020-21)**

<b>Course</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
CO Attainment	2.31	2.02	2.0	1.84	1.88	1.69	1.58	1.71	1.65	1.68	1.71	1.79
Direct Attainment	2.21	1.88	1.82	1.62	1.71	1.43	1.33	1.43	1.38	1.43	1.49	1.56
InDirect Attainment	2.7	2.57	2.71	2.71	2.57	2.71	2.57	2.85	2.71	2.71	2.57	2.71

**PSO Attainment (AY 2020-21)**

<b>Course</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C101	1	--	1

C102	1	--	--
C103	1	--	--
C104	--	--	1
C105	0.96	--	--
C106	--	--	--
C107	--	--	--
C108	0.97	--	0.97
C109	1	--	--
C110	0.97	--	--
C111	0.87	--	0.87
C112	--	--	--
C113	0.67	--	0.67
C114	--	--	--
C201	1.88	--	--
C202	2.64	--	--
C203	2	--	--
C204	2.36	--	--
C205	2.76	1.84	--
C206	2	1	--
C207	--	--	2.1
C208	--	0.66	0.66
C209	1.88	--	--
C210	2.64	--	--
C211	1.74	1.16	--
C212	2.91	2.91	--
C213	1.88	--	--
C214	2	2	2
C215	--	--	0.66
C301	1.76	0.88	0.88

C302	1.16	1.16	0.58
C303	2.59	1.72	--
C304	1.91	--	0.82
C305	1.88	1.88	1.88
C306	1.33	0.67	--
C307	3	2	3
C308	--	0.66	0.66
C309	2	--	1
C310	1.28	0.64	0.64
C311	2.67	1.6	--
C312	1.64	--	--
C313	1.45	1.45	0.72
C314	2.33	--	2
C315	--	0.66	0.66
C401	1.16	0.52	0.52
C402	1.92	1.664	1.472
C403	2.89	1.92	--
C404A	2.95	1.96	--
C405A	1.64	1.64	0.82
C406	2.67	3	3
C407	--	0.66	0.66
C408	1.64	0.82	0.82
C409	1.86	1.24	--
C410A	1.16	0.85	2
C411A	1.8	2	1
C412	1.47	1.65	3
C413	3	-	3
C414	--	0.66	2

**PSO Attainment Level (AY 2020-21)**

<b>Course</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
CO Attainment	1.98	1.62	1.51
Direct Attainment	1.83	1.38	1.21
InDirect Attainment	2.57	2.57	2.71