

SAVITRIBAI PHULE PUNE UNIVERSITY



FACULTY OF ENGINEERING
SYLLABUS STRUCTURE FOR T.E.
(PRINTING TECHNOLOGY)
(2019 COURSE)

WITH EFFECT FROM YEAR 2021 - 22

Printing Technology Third Year (2019 Course)

With Effect From: 2021-22

SEMESTER – I

SEMESTER – I													
Sr. No.	Subject Code	Subject Title	Teaching Scheme			Examination Scheme					Total Marks	Credits	
			Th.	Pr.	Tut.	Paper		TW	PR	OR		TH/ TW	PR/ OR
						In Sem	End Sem						
1.	308281	Print Statistics	03	02	--	30	70	25	--	--	125	3	1
2.	308282	Offset Printing Techniques	03	02	--	30	70	25	25	--	150	3	1
3.	308283	Color Science and Measurement	03	02	--	30	70	--	25	--	125	3	1
4.	308284	Ink Technology	03	02	--	30	70	--	25	--	125	3	1
5.	308285	Advanced Print Layout Design	--	02	--	--	--	--	25	--	25	--	1
6.	308286	Elective - I	03	--	--	30	70	--	--	--	100	3	--
7.	308287	Seminar	01	--	--	--	--	50	--	--	50	1	--
8.	308288	Audit Course	--	--	--	--	--	--	--	--	--	--	--
Total			16	10	--	150	350	100	100	--	700	16	5
Total Credits												21	

SEMESTER – II

SEMESTER – II													
Sr. No.	Subject Code	Subject Title	Teaching Scheme			Examination Scheme					Total Marks	Credits	
			Th.	Pr.	Tut.	Paper		TW	PR	OR		TH/ TW	PR/ OR
						In Sem	End Sem						
1.	308289	Flexo Printing Techniques	03	02	--	30	70	25	25	--	150	3	1
2.	308290	Color Management	03	02	--	30	70	25	25	--	150	3	1
3.	308291	Design of Experiments	03	02	--	30	70	25	25	--	150	3	1
4.	308292	Advanced Package Layout Design	--	02	--	--	--	25	--	--	25	--	1
5.	308293	Elective - II	03	02	--	30	70	--	25	--	125	3	1
6.	308294	Internship**	--	--	--	--	--	100**	--	--	100	--	4
7.	308295	Audit Course	--	--	--	--	--	--	--	--	--	--	--
Total			12	10	--	120	280	200	100	--	700	12	9
Total Credits												21	

** The detailed guidelines for Internship are mentioned in the syllabus.

T.E Printing Technology (2019 Course) – Savitribai Phule Pune University

(308288) Audit Course

In addition to credits course, it is recommended that there should be audit course (non-credit course). The student will be awarded grade as AP on successful completion of audit course. The student may opt for one of the audit courses per semester. Though not mandatory, such audit courses can help the student to get awareness of different issues which make impact on human lives and enhance their skill sets to improve their employability. List of audit courses offered in each semester is provided in curriculum. Each student has to choose one audit course from the list per semester. Evaluation of audit course will be done at institute level. Method of conduction and method of assessment for audit courses is suggested.

The student registered for audit course shall be awarded the grade AP and shall be included such grade in the Semester grade report for that course, provided student has the minimum attendance as prescribed by the Savitribai Phule Pune University and satisfactory in-semester performance and secured a passing grade in that audit course. No grade points are associated with this 'AP' grade and performance in these courses is not accounted in the calculation of the performance indices SGPA and CGPA. Evaluation of audit course will be done at institute level itself. (Ref-

http://www.unipune.ac.in/Syllabi_PDF/revised-

[2015/engineering/UG_RULE_REGULATIONS_FOR_CREDIT_SYSTEM-2015_18June.pdf](http://www.unipune.ac.in/Syllabi_PDF/revised-2015/engineering/UG_RULE_REGULATIONS_FOR_CREDIT_SYSTEM-2015_18June.pdf))

Guidelines for Conduction and Assessment (Any one or more of following but not limited to)

- Lectures/ Guest Lectures
- Visits (Social/Field) and reports
- Demonstrations
- Surveys
- Mini Project
- Hands on experience on specific focused topic

Guidelines for Assessment (Any one or more of following but not limited to)

- Written Test
- Demonstrations/ Practical Test
- Presentations
- IPR/Publication
- Report

List of courses under Audit Course

Course Code	Audit Course Title
308288-I	Six Sigma
308288-II	Corporate Branding

Students can opt for audit course from the list of Audit Course of any branch of engineering.

(308288 - I) Audit Course: Introduction to Six Sigma

Prerequisites: None

Course Objectives:

- To learn Six Sigma set of tools and techniques
- To understand improving production processes and eliminate defects,
- To learn qualitative and quantitative tools

Course Outcomes:

On completion of the course the learners will be able to

CO1: Communicate using Six Sigma concepts

CO2: Use the concept of a sigma level to evaluate the capability of a process or organization.

CO3: Understand and apply the five-step DMAIC model as a framework to organize process improvement activity

Course Contents:

1. Six Sigma and Organizational Goals
 - A. Value of Six Sigma
 - B. Organizational Drivers and Metrics
 - C. Organizational Goals and Six Sigma Projects
2. Fundamentals of Lean and Six Sigma and their Applications
3. DMAIC (Define, Measure, Analyze, Improve, Control) and a number of qualitative and quantitative tools

Reference Books:

1. Kubiak, T. M., & Benbow, D. W. (2016). The certified six sigma black belt handbook. Quality Press.
2. Pande, P. S., Neuman, R. P., & Cavanaugh, R. R. (2014). Six Sigma way: How to maximize the impact of your change and improvement efforts. McGraw-Hill Education.

CO-PO Mapping:

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	-	1	-	1	1	-	-	-	-	-	-	-
CO2	-	2	-	2	2	-	-	-	-	-	-	-
CO3	-	2	-	2	2	-	-	-	-	-	-	-

(308288 - II) Audit Course: Corporate Branding

Prerequisites: None

Course Objectives:

- To understand what a brand is and how they can build successful ones
- To learn positioning and its importance to successful
- To understand consumer perception

Course Outcomes:

On completion of the course the learners will be able to

CO1: Understand the importance of branding and their value creation for their organizations.

CO2: Demonstrate an understanding of how to design and build a brand-driven organization.

CO3: Identify and create an effective brand positioning strategy.

Course Contents:

1. What is a brand and what is brand management?
2. Tools for marketing and branding strategy
3. The importance of consumer perception and behavior in branding
4. Brand Equity
5. Understanding consumer perception is crucial to determine a branding strategy.

Reference Books:

1. Blackett, T. & Boad, B. (Eds.). (1999). Co-Branding: The Science of Alliance. London: Macmillan.
2. Duncan, T., & Moriarty, S. (1997). Driving Brand Value: Using Integrated Marketing to Manage Profitable Stakeholder Relationships. New York.

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CO1	-	-	1	-	-	-	-	-	-	-	-	-
CO2	-	-	1	-	-	1	1	-	-	-	1	-
CO3	-	-	1	-	-	1	1	-	-	-	1	-

(308295) Audit Course

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Guidelines for Assessment (Any one or more of following but not limited to)

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List of courses under Audit Course

Course Code	Audit Course Title
308295-I	Design Thinking
308295-II	Supply Chain Management

Students can opt for audit course from the list of Audit Course of any branch of engineering.

(308295 - I) Audit Course: Design Thinking

Prerequisites: None

Course Objectives:

- To understand the concepts of Design Thinking
- To understand the approach to new product development

Course Outcomes:

On completion of the course the learners will be able to

CO1: To learn the concepts that drive design thinking

CO2: To identify customer needs and user groups

CO3: To analyse the steps of Design Thinking for the process of innovation

Course Contents

1. Introduction to Design Thinking and the 5 Major steps in Design Thinking
2. Empathize Phase: Customer Journey Mapping
3. Analyze Phase: 5-Whys and How might we...
4. Solve Phase
5. Ideation: Free Brainstorming & Make/Test Phase
6. Prototype

Reference Books:

1. Brown, T., & Katz, B. (2019). Change by design: How design thinking transforms organizations and inspires innovation (Vol. 20091). New York, NY: Harper Business.
2. Cross, N. (2011). *Design thinking: Understanding how designers think and work*. Berg.

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	-	-	-	-	-	1	-	-	-	-	-	-
CO2	-	-	-	-	-	-	-	1	-	-	-	-
CO3	-	-	-	-	-	-	-	1	1	-	-	-

(308295 - II) Audit Course: Supply Chain Management

Prerequisites: None

Course Objectives:

- To understand the methods to manage the interactions of the business functions
- To understand insights on demand management function and its integration with supply chain.
- To learn to utilise the enterprise knowledge and resources across the supply chain activities.

Course Outcomes:

On completion of the course the learners will be able to

CO1. To develop a sound understanding of the important role of supply chain management

CO2. Become familiar with current supply chain management trends

CO3. Understand and apply the current supply chain theories, practices and concepts utilizing case problems and problem-based learning situations

Course Contents:

1. Introduction to supply chain management
2. The management components of supply chain management
3. Supply chain processes
4. Electronically linking the supply chain
5. Supply chain performance measurement
6. Implementing supply chain management

Reference Books:

1. Hugos, M. H. (2018). Essentials of supply chain management. John Wiley & Sons.
2. Sarkar, S. (2017). *The Supply Chain Revolution: Innovative Sourcing and Logistics for a Fiercely Competitive World*. Amacom.

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CO1	-	-	1	-	-	-	-	-	-	-	-	-
CO2	-	-	1	-	-	-	1	-	-	-	-	-
CO3	-	-	1	-	-	-	1	-	-	-	-	-