



**PSGR  
Krishnammal College for Women**



**DEPARTMENT OF BCOM (e- COMMERCE)**

**CHOICE BASED CREDIT SYSTEM (CBCS) &  
LEARNING OUTCOMES - BASED CURRICULUM FRAMEWORK (LOCF)**

**BACHELOR OF COMMERCE WITH e-COMMERCE**

**2025 – 2028 BATCH**

**(I SEMESTER)**



**Autonomous and Affiliated to Bharathiar University**  
**Re-accredited with A++ grade by NAAC**  
**Peelamedu, Coimbatore-641004**

### **PROGRAMME LEARNING OUTCOMES (PLOs)**

After completion of the programme, the student will be able to:

- PLO1** Acquire quality professional education and ethical practices adopted in the field of e-commerce to turn into an outstanding researcher/ teacher/ career woman and a responsible citizen
- PLO2** Impart knowledge through practical exploration of various tools, techniques and methods in e-commerce discipline to become a potential entrepreneur.
- PLO3** Analyze real e-business strategies and apply their specialist knowledge in complex decision-making environment
- PLO4** Solve societal and practical issues in relation to e- business over internet to integrate ethical online business process and practices.
- PLO5** Facilitate organizations to integrate online business processes to launch their own e-commerce venture.

### **PROGRAMME SPECIFIC OUTCOME (PSOs)**

At the time of graduation, the students will be able to:

- PSO1** Recognize the impact of information and communication technologies, especially of internet in business operations.
- PSO2** Gain a comprehensive understanding of the e-commerce landscape, business models and the technologies related to various businesses.
- PSO3** Promote entrepreneurship and managerial skills in students so as to enable them to establish and manage their business effectively.



**BACHELOR OF COMMERCE WITH e-COMMERCE**  
**CHOICE BASED CREDIT SYSTEM (CBCS) &**  
**LEARNING OUTCOMES - BASED CURRICULUM FRAMEWORK (LOCF)**  
**SCHEME & SYLLABUS OF EXAMINATION**  
**2025-2028 BATCH**  
**SEMESTER I**

Sem	Part	Course Code	Title of the Course	Course Type	Instruction hours/week	Contact hours	Tutorial	Duration of Examination	Examination Marks			Credits
									CA	ESE	TOTAL	
<b>I</b>	I	TAM2501A/ HIN2501A/ FRE2501A	Tamil Paper I/ Hindi Paper I/ French Paper I	L	4	58	2	3	25	75	100	3
	II	ENG2501A	English Paper I	E	4	58	2	3	25	75	100	3
	III	CM25C01	Principles of Accounting	CC	5	73	2	3	25	75	100	3
	III	EC25C02	Fundamentals of e-Commerce	CC	6	88	2	3	25	75	100	4
	III	TH24A07	Mathematics for Commerce	GE	5	73	2	3	25	75	100	4
	III	EC25CP1	Advanced Data Analysis Techniques in Excel Practical	CC	4	60	-	3	15	35	50*	2
	IV	NME25B1 / NME25A1	Basic Tamil I/ Advanced Tamil I	AEC	2	28	2	-	100	-	100	2
		NME23ES	Introduction to Entrepreneurship	AEC	2	30	-	-	100	-	100	
	VI	NM25GAW	General Awareness	AECC	SS	-	-	-	100	-	100	Gr.
<b>I-II</b>	VI	COM25SER	Community Services 30 Hours	GC	-	-	-	-	-	-	-	-
<b>I-V</b>	VI	24BONL 1 24BONL 2 24BONL 3	Online Course I Online Course II Online Course III	ACC	-	-	-	-	-	-	-	

**L – Language**

**E – English**

**CC – Core Courses**

**GE – Generic Elective**

**GC - General Course**

**AEC – Ability Enhancement Course**

**Gr.- Grade**

**SS-Self Study**

**CA – Continuous Assessment**

**ESE - End Semester Examination**

**ACC-Additional Credit Course**

**AECC- Ability Enhancing Compulsory Course**

**\*CA conducted for 25 and converted into 15, ESE conducted for 75 and converted into 35**

## **Examination System**

One test for continuous assessment will be conducted on pre-determined dates i.e., commencing on the 50<sup>th</sup> day from the date of reopening. The Model exam will be conducted after completing 85<sup>th</sup> working days. Marks for ESE and CA with reference to the maximum for the courses will be as follows

### **CA Question Paper Pattern and distribution of marks UG**

#### **Language and English**

Section A 5 x 1 (No choice) : 5 Marks

Section B 4 x 5 (4 out of 6) : 20 Marks (250 words)

Section C 2 x 10 (2 out of 3) : 20 Marks (500 words)

**Total : 45 Marks**

#### **Marks UG - Core and Allied - (First 3 Units)**

##### **CA Question from each unit comprising of**

One question with a weightage of 2 Marks	: 2 x 3 = 6
One question with a weightage of 5 Marks (Internal Choice at the same CLO level)	: 5 x 3 = 15
One question with a weightage of 8 Marks (Internal Choice at the same CLO level)	: 8 x 3 = 24
<b>Total</b>	<b>: 45 Marks</b>

#### **CA Question Paper Pattern:(for Principles of Accounting)**

##### **Question from each unit comprising of**

One question with a weightage of 2 Marks	: 2 x 3 = 6
One question with a weightage of 5 Marks	: 5 x 3 = 15
One question with a weightage of 8 Marks (Internal Choice at the same CLO level)	: 8 x 3 = 24
<b>Total</b>	<b>: 45 Marks</b>

### **End Semester Examination – Question Paper Pattern and Distribution of Marks**

#### **Language and English – UG**

Section A	10 x 1 (10 out of 12) :	10 Marks
Section B	5 x 5 (5 out of 7) :	25 Marks (250 words)
Section C	4 x 10 (4 out of 6) :	40 Marks (600 - 700 words)
<b>Total :</b>		<b>75 Marks</b>

### **End Semester Examination – Question Paper Pattern and Distribution of Marks UG - Core and Allied courses:**

#### **ESE Question Paper Pattern: 5 x 15 = 75 Marks**

##### **Question from each unit comprising of**

One question with a weightage of 2 Marks	: 2 x 5 = 10
One question with a weightage of 5 Marks (Internal Choice at the same CLO level)	: 5 x 5 = 25
One question with a weightage of 8 Marks (Internal Choice at the same CLO level)	: 8 x 5 = 40
<b>Total</b>	<b>: 75 Marks</b>

### **ESE Question Paper Pattern:(for Principles of Accounting) 5 x 15 = 75 Marks**

Question from each unit comprising of

One question with a weightage of 2 Marks	: 2 x5=10
One question with a weightage of 5 Marks	: 5 x 5 = 25
One question with a weightage of 8 Marks (Internal Choice at the same CLO level)	: 8 x 5 = 40
<b>Total</b>	<b>: 75 Marks</b>

### **Continuous Internal Assessment Pattern Theory**

CIA Test (conducted for 45 marks after 50 days)	: 5 marks
Model Exam(Conducted for 75 marks after 85 days , Each Unit 15 Marks)	: 7 marks
Seminar/Assignment/Quiz	: 5 marks
Class Participation	: 5 marks
Attendance	3 marks
<b>Total</b>	<b>: 25 Marks</b>

### **ESE Practical Pattern**

The End Semester Examination will be conducted for a maximum of 75 marks respectively with a maximum 15 marks for the record and other submissions if any.

### **Practical**

Lab Performance	: 7 marks
Regularity	: 5 marks
Model Exam	: 10 marks
Attendance	: 3 marks
<b>Total</b>	<b>: 25 marks</b>

### **Part IV**

### **Introduction to Entrepreneurship**

Quiz	: 50 marks
Assignment	: 25 marks
Project / Case study	: 25 marks
<b>Total</b>	<b>:100 Marks</b>

### **Advanced Tamil/ Basic Tamil**

CIA Test	: 25 Marks (conducted for 50 Marks after 50 days)
Model Exam	: 50 Marks (conducted for 75 Marks after 85 days)
Quiz	: 15 Marks
Assignment	: 10 Marks
<b>Total</b>	<b>: 100 Marks</b>

### **Attendance Marks**

91 – 100%	: 3 Marks
81 – 90 %	: 2 Marks
75 – 80%	: 1 Mark

**MAPPING OF PLOs WITH CLOs**

<b>COURSE</b>	<b>PROGRAMME LEARNING OUTCOMES</b>				
	<b>PLO1</b>	<b>PLO2</b>	<b>PLO3</b>	<b>PLO4</b>	<b>PLO5</b>
<b>COURSE - CM25C01</b>					
<b>CLO1</b>	S	M	S	M	S
<b>CLO2</b>	S	M	S	M	M
<b>CLO3</b>	S	M	M	M	M
<b>CLO4</b>	S	M	S	M	S
<b>COURSE - EC25C02</b>					
<b>CLO1</b>	S	S	S	S	S
<b>CLO2</b>	S	S	S	S	S
<b>CLO3</b>	S	S	S	S	S
<b>CLO4</b>	S	S	S	S	S
<b>COURSE – EC25CP1</b>					
<b>CLO1</b>	S	S	S	S	M
<b>CLO2</b>	S	M	S	S	S
<b>CLO3</b>	M	S	S	S	M
<b>CLO4</b>	S	S	S	S	S

S- Strong; M-Medium

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>CATEGORY</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>CREDIT</b>
<b>CM25C01</b>	<b>PRINCIPLES OF ACCOUNTING</b>	<b>THEORY</b>	<b>73</b>	<b>2</b>	<b>-</b>	<b>3</b>

#### **Preamble**

- To enable the students to apply the conceptual principles and to develop an expertise in handling accounts of business entities and the consolidation of accounts through appropriate accounting techniques and policies.

#### **Prerequisite**

- Basic Knowledge in Financial Statements

#### **Course Learning Outcomes**

On the successful completion of the course, students will be able to

<b>CLOs</b>	<b>CLO Statement</b>	<b>Knowledge Level</b>
<b>CLO1</b>	Define the concepts and conventions in accounting.	<b>K1</b>
<b>CLO2</b>	Interpret accounting statement using basic concepts.	<b>K2</b>
<b>CLO3</b>	Apply the procedures of recording transactions and preparation of Reports.	<b>K3</b>
<b>CLO4</b>	Articulate the accounting concepts to interpret the performance of a Firm.	<b>K4</b>

#### **Mapping with Programme Learning Outcomes**

<b>CLOs</b>	<b>PLO1</b>	<b>PLO2</b>	<b>PLO3</b>	<b>PLO4</b>	<b>PLO5</b>
<b>CLO1</b>	S	M	S	M	S
<b>CLO2</b>	S	M	S	M	M
<b>CLO3</b>	S	M	M	M	M
<b>CLO4</b>	S	M	S	M	S

S-Strong; M-Medium

#### **Syllabus**

##### **Unit I**

**(14 Hrs)**

Basic Accounting Concepts and Conventions - Journal, Ledger Accounts– Subsidiary Books– Trial Balance–Disclosure of Company accounting Policies (AS1)- Revenue Recognition (AS 9)– Final Accounts of Sole Trading Concern- Capital and Revenue Expenditure and Receipts–Preparation of Trading, Profit and Loss Account and Balance Sheet with Adjustments.

##### **Unit II**

**(15 Hrs)**

Classification of Errors - Rectification of Errors – Preparation of Suspense Account. Bank Reconciliation Statement-Need and Preparation. Average due date- Bills of Exchange – Definition – Specimens – Discounting of Bills – Endorsement of Bill – Collection – Noting – Renewal – Retirement of Bill under rebate (trade bills only).

**Unit III****(15 Hrs)**

Accounting from Incomplete Records – Single Entry System: Incomplete Records -Meaning and Features - Limitations - Difference between Incomplete Records and Double Entry System - Methods of Calculation of Profit - Statement of Affairs Method–Preparation of final statements by Conversion method. Joint Venture (AS-27).

**Unit IV****(15 Hrs)**

Royalty and Insurance Claims: Meaning – Minimum Rent – Short Working – Recoupment of Short Working – Lessor and Lessee – Sublease – Accounting Treatment. Provisions, Contingent Liabilities, and Contingent Assets (AS29) -Insurance Claims –Calculation of Claim Amount-Average clause (Loss of Stock only).

**Unit V****(14Hrs)**

Depreciation (AS 6) - Meaning – Objectives – Accounting Treatments - Types – Straight Line Method –Diminishing Balance method –Conversion method –Annuity Method – Revaluation Method.

**Text Books**

Sl.No.	Author Name	Title of the Book	Publisher	Year and Edition
1.	Jain S.P &Narang K.L	Principles of Accountancy	Kalyani Publishers	2022, 21 <sup>st</sup> Edn.
2.	Reddy TS &A Murthy	Financial Accounting	Margham Publications	Reprint 2021, 7 <sup>th</sup> Edn.

**Reference Books**

Sl.No.	Author Name	Title of the Book	Publisher	Year and Edition
1.	RL Gupta &Radhasamy	Advanced Accountancy (Vol I)	Sultan Chand& Sons.	2018, 13 <sup>th</sup> Edn.
2.	MC Shukla, T.S.Grewal &S.C. Gupta	Advanced Accountancy	S.Chand &sons	2022, 19 <sup>th</sup> Edn.

**Skill Components**

- Review and assess a company's accounting policies and identify compliance with AS 1 (Disclosure of Accounting Policies) and AS 9 (Revenue Recognition).
- Identify and classify accounting errors and implement appropriate methods for their rectification.
- Apply the Single Entry System to business situations and evaluate the limitations of incomplete records.
- Analyze insurance claims with special emphasis on calculating the claim amount under the average clause, and apply it to loss of stock situations.
- Apply various methods of depreciation to different business scenarios and understand the financial impact of each method.



**Pedagogy**

- PowerPoint Presentations, Group Discussion, Seminar, Quiz Assignment, Experience Discussion

**Course Content and Lecture Schedule**

Module No.	Topic	CLO Level	No. of Hours	Content delivery method	Learning Methods
<b>UNIT I (14)</b>					
1.	Basic Accounting Concepts and Conventions -Journal, Ledger Accounts	CLO1, CLO2, CLO3, CLO4	2	Talk & Chalk	Participatory Learning, Problem Based Learning
2.	Subsidiary Books — Trial Balance –	CLO1, CLO2, CLO3, CLO4	3	Talk & Chalk	Participatory Learning, Problem Based Learning
3.	Disclosure of Company accounting Policies (AS 1) - Revenue Recognition (AS 9)–	CLO1, CLO2, CLO3, CLO4	1	Solving Problems	Participatory Learning
4.	Final Accounts of Sole Trading Concern- Capital and Revenue Expenditure and Receipts –	CLO1, CLO2, CLO3, CLO4	5	Solving Problems	Participatory Learning, Problem Based Learning
5.	Preparation of Trading, Profit and Loss Account and Balance Sheet with Adjustments.	CLO1, CLO2, CLO3, CLO4	3	Solving Problems	Participatory Learning, Experiential Learning
<b>UNIT II (15)</b>					
6.	Classification of Errors - Rectification of Errors – Preparation of Suspense Account.	CLO1, CLO2, CLO3, CLO4	3	Talk &Chalk, Solving Problems	Participatory Learning, Experiential Learning
7.	Bank Reconciliation Statement - Need and Preparation.	CLO1, CLO2, CLO3, CLO4	3	Solving Problems	Participatory Learning, Problem Based Learning
8.	Average due Date - Bills of Exchange – Definition – Specimens -	CLO1, CLO2, CLO3, CLO4	3	Talk &Chalk	Problem Based Learning
9.	Discounting of bill - Endorsement of a bill -	CLO1, CLO2, CLO3, CLO4	2	Solving Problems	Problem Based Learning, Experiential Learning

10.	Collection – Noting – Renewal – Retirement of Bill under rebate (trade bills only)-	CLO1, CLO2, CLO3, CLO4	4	Solving Problems	Participatory Learning, Problem Based Learning
<b>UNIT III (15)</b>					
11.	Accounting from Incomplete Records – Single Entry System: Incomplete Records -Meaning and Features -	CLO1, CLO2, CLO3, CLO4	2	Talk & Chalk	Participatory Learning, Experiential Learning
12.	Limitations - Difference between Incomplete Records and Double Entry System -	CLO1, CLO2, CLO3, CLO4	1	Talk & Chalk	Participatory Learning
13.	Methods of Calculation of Profit -	CLO1, CLO2, CLO3, CLO4	4	Solving Problems	Participatory Learning, Problem based Learning
14.	Statement of Affairs Method –	CLO1, CLO2, CLO3, CLO4	2	Solving Problems	Problem based Learning
15.	Preparation of final statements by Conversion method.	CLO1, CLO2, CLO3, CLO4	2	Solving Problems	Problem based Learning, Experiential Learning
16.	Joint Venture (AS 27).	CLO1, CLO2, CLO3, CLO4	4	Solving Problems	Problem based Learning, Experiential Learning
<b>UNIT IV (15)</b>					
17.	Royalty and Insurance Claims: Meaning – Minimum Rent –	CLO1, CLO2, CLO3, CLO4	2	Talk & Chalk, Solving Problems	Participatory Learning, Problem based Learning
18.	Short Working – Recoupment of Short Working– Lessor and Lessee –	CLO1, CLO2, CLO3, CLO4	5	Solving Problems	Participatory Learning, Problem based Learning
19.	Sublease – Accounting Treatment. Provisions, Contingent Liabilities, and Contingent Assets (AS 29)	CLO1, CLO2, CLO3, CLO4	4	Talk & Chalk, Solving Problems	Problem based Learning, Experiential Learning
20.	Insurance Claims –Calculation of Claim Amount-Average clause (Loss of Stock only)	CLO1, CLO2, CLO3,	4	Solving Problems	Participatory Learning, Problem based

		CLO4			Learning
<b>UNIT V (14)</b>					
21.	Depreciation (AS 6)- Meaning – Objectives – Accounting Treatments	CLO1, CLO2, CLO3, CLO4	2	Talk & Chalk	Participatory Learning, Experiential Learning
22.	Types – Straight Line Method	CLO1, CLO2, CLO3, CLO4	4	Solving Problems	Participatory Learning, Problem based Learning
23.	Diminishing value method	CLO1, CLO2, CLO3, CLO4	4	Solving Problems	Problem based Learning
24.	Conversion method -Annuity method	CLO1, CLO2, CLO3, CLO4	2	Solving Problems	Problem based Learning
25.	Revaluation Method.	CLO1, CLO2, CLO3, CLO4	2	Solving Problems	Problem based Learning, Experiential Learning

### Course Designers

1. Dr. B. Thulasi Priya, Department of Commerce.
2. Mrs. G. Deebikaa, Department of Commerce.

S.NO	LEARNING METHODS	PERCENTAGE
1	Participatory Learning	20
2	Problem Solving	50
3	Experimental Learning	30

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>CATEGORY</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>CREDIT</b>
<b>EC25C02</b>	<b>FUNDAMENTALS OF e-COMMERCE</b>	<b>THEORY</b>	<b>88</b>	<b>2</b>	<b>-</b>	<b>4</b>

### Preamble

- To establish knowledge about and acquaint the basic concepts of e-commerce.
- To instill idea of convergence of business relationship through recent technologies.
- To identify, define and differentiate the various modes of electronic commerce.
- To demonstrate an awareness of the main components and concepts of Industry 4.0, and the vital role it plays in e-business practice.

### Course Learning Outcomes

On the successful completion of the course, students will be able to:

<b>CLO Number</b>	<b>CLO Statement</b>	<b>Knowledge Level</b>
<b>CLO1</b>	Recall the fundamental concepts of e-commerce and the functioning of various types of e-business models	K1
<b>CLO2</b>	Explain the role of e-commerce in a bridging payment process through RPA	K2
<b>CLO3</b>	Develop a technological framework required for an e-business & M-Commerce	K3
<b>CLO4</b>	Analyze e-business strategies, business transformation processes and AI applications relevant to Industry 4.0	K4

### Mapping with Programme Learning Outcomes

<b>CLOS</b>	<b>PLO1</b>	<b>PLO2</b>	<b>PLO3</b>	<b>PLO4</b>	<b>PLO5</b>
<b>CLO1</b>	S	S	S	S	S
<b>CLO2</b>	S	S	S	S	S
<b>CLO3</b>	S	S	S	S	S
<b>CLO4</b>	S	S	S	S	S

S- Strong

### Syllabus

#### UNIT I

**(18 hours)**

Introduction to e-Commerce – Definition – Perspectives – History of e-Commerce –e-Commerce drivers – Nature & Scope of e-Commerce – Characteristics - Categories of e-Commerce - Electronic data interchange - Electronic funds transfer – **6 P's in e-Commerce** – **Comparison between traditional and electronic commerce** – advantages and disadvantages of e-commerce- Security Issues in e-Commerce - futures in e-Commerce.

**UNIT II****(18 hours)**

Introduction to e-business –business models in e-Commerce: B2C – B2B – relationship between B2B e-Commerce with other perspectives - Introduction to e-Services: Categories of e-Services – Web enabled services – Match making services – **Information selling on the web** – e-Entertainment –Auctions & other specialized services. E-Commerce Technology: Introduction –Electronic Commerce Framework – **Electronic Commerce and Media Convergence**. The Network Infrastructure for Electronic Commerce: Components of the I-Way-Working models of I-way network infrastructure- Network Access Equipment-Global Information Distribution Networks.

**UNIT III****(18 hours)**

Digital Document: Meaning- Definition- Types of Digital Document. Corporate data Warehouse - Types of data warehouse. Electronic payment system – Introduction – features of e-payment system – **Types of e-payment system**: e-token – e-cash – e-money - e-cheque – Credit cards – Debit cards – Smart cards. **Pros and Cons of EPS**- Application of Electronic payment system including online cashless transaction- Designing e-Payment system.

**UNIT IV****(17 hours)**

Current Trends in electronic world: e-Waste – e-Surveillance – e-Governance - e-Care. e-Commerce Laws and Regulations in India - Guidelines for consumer protection. Network Security and Firewalls: Client server network security- threats- **Firewalls and Data security**- Encrypted documents and electronic mail- **Technology behind the web**.

**UNIT V****(17 hours)**

Introduction to Industry 4.0 – Definition – Goals, Impact and Design Principles - Technologies of AI in Industry 4.0 – Reasons for Adopting AI in Industry 4.0 - **Skills required for adopting Industry 4.0**- IOT: Concepts- Architecture- Technologies- **Developing IOT Application**- Security in IOT- Introduction to 5.0.

**Text Books**

Sl.No.	Author Name	Title of the Book	Publisher	Year and Edition
1	Dr. U.S. Pandey Er. Saurabh Shukla	e-Commerce and Mobile Commerce Technologies	S. Chand	2015 & 2 <sup>nd</sup> Edn., Reprint
2	P. Kaliraj, T. Devi	Higher Education for Industry 4.0 and Transformation to Education 5.0	Bharathiar University	2020 & 1 <sup>st</sup> Edn.

**Reference Books**

Sl. No.	Author Name	Title of the Book	Publisher	Year and Edition
1	Ravi Ka lakota and Andrew B. Whinston	Frontiers of Electronic Commerce	Pearson Publication Ltd	2013 & 1 <sup>st</sup> Edn.
2	Kenneth C. Laudon, Carol Guercio Traver	E-Commerce 2020-2021 Business.Technology. Society	Pearson Publication Ltd	2021 & 16 <sup>th</sup> Edn.

## Skill Components

- Understand the key ideas, categories, and evolution of e-commerce and how it shapes today's digital business world.
- Learn to use different electronic payment systems and understand how online transactions are carried out securely.
- Identify common online threats and learn basic methods to protect information and follow legal rules in e-commerce.
- Develop skills to manage digital documents and understand how data is stored and used in business decision-making.
- Discover how Industry 4.0 technologies like AI and IoT are transforming business, and understand their basic uses and benefits.

## Pedagogy

- Lecture, Assignment, Group Discussion, PowerPoint Presentation and Seminar

## Reference Links

### UNIT I

- <https://www.youtube.com/watch?reload=9&v=paBR4aXoT14>
- <https://www.youtube.com/watch?v=i071Cn76JJY>
- <https://www.youtube.com/watch?v=tFv8YKcpxdU>
- <https://www.youtube.com/watch?v=1VaDQp4wHsk>

### UNIT II

- <https://www.youtube.com/watch?v=wMQjimpVgor8>
- [https://www.youtube.com/watch?v=vTg\\_52JiB0s](https://www.youtube.com/watch?v=vTg_52JiB0s)
- <https://www.youtube.com/watch?v=HV6rp7RCZw8>
- <https://www.youtube.com/watch?v=GwJkPZFGhsc>

### UNIT III

- <https://study.com/academy/lesson/video/electronic-payment-systems-definition-types.html>
- <https://www.youtube.com/watch?v=juLZGW9gR2w>
- <https://study.com/academy/lesson/video/electronic-payment-systems-definition-types.html>
- <https://www.youtube.com/watch?v=kDcnTqFbpH4>

### UNIT IV

- <https://study.com/academy/lesson/video/firewalls-in-network-security-features-functions.html>
- <https://study.com/academy/lesson/video/systems-security-firewalls-encryption-passwords-biometrics.html>
- <https://study.com/academy/lesson/video/what-is-web-technology-definition-trends.html>

## UNIT V

- <https://www.techtarget.com/whatis/video/An-introduction-to-Industry-40>
- <https://www.youtube.com/watch?v=ZxPvjKP42YY>
- <https://www.youtube.com/watch?v=My7mBrk7hks>

### Course Content and Lecture Schedule

UNIT I (18 Hrs)					
Module No.	Topic	CLO Level	No. of Hours	Content Delivery Methods	Learning Methods
1	Introduction to e-Commerce- Definition	CLO1, CLO2	2	Lecture, PPT	Participatory Learning
2	Perspectives – History of e-Commerce	CLO1, CLO2	2	Lecture, PPT	Experiential Learning
3	e-Commerce drivers	CLO1, CLO2	2	Lecture, PPT	Experiential Learning,
4	Nature & Scope of e-Commerce	CLO1, CLO2	2	Chalk and Talk, PPT	Participatory Learning
5	Characteristics - Categories of e-Commerce	CLO1, CLO2	2	Flipped Class, PPT	Participatory Learning
6	Electronic data interchange - Electronic funds transfer	CLO1, CLO2	2	Chalk and Talk, PPT	Participatory Learning
7	<b>6 P's in e-Commerce – Comparison between traditional and electronic commerce</b>	CLO1, CLO2	2	Link, Video	Experiential Learning, Blended Learning
8	advantages and disadvantages of e-commerce	CLO1, CLO2	2	Lecture, PPT	Participatory Learning
9	Security Issues in e-Commerce - futures in e-Commerce.	CLO1, CLO2	2	Lecture, PPT	Problem Based Learning
UNIT II (18 Hrs)					
10	Introduction to e-business – business models in e-Commerce: B2C – B2B	CLO1, CLO2	2	Chalk and Talk, PPT	Participatory Learning
11	relationship between B2B e-Commerce with other perspectives	CLO1, CLO2	2	Flipped Class, PPT	Participatory Learning
12	Introduction to e-Services: Categories of e-Services	CLO1, CLO2	2	Chalk and Talk, PPT	Participatory Learning
13	Web enabled services –	CLO2,	2	Chalk and Talk, PPT	Participatory

	Match making services	CLO3			Learning
14	<b>Information selling on the web</b> — e-Entertainment – Auctions & other specialized services.	CLO2, CLO3	2	Link, Demo	Participatory Learning, Blended Learning
15	E-Commerce Technology: Introduction –Electronic Commerce Framework	CLO2, CLO3	2	Lecture, PPT	Problem Based Learning
16	<b>Electronic Commerce and Media Convergence.</b> The Network Infrastructure for Electronic Commerce	CLO2, CLO4	2	Link	Experiential Learning, Blended Learning
17	Components of the I-Way-Working models of I-way network infrastructure	CLO3, CLO4	2	Lecture, PPT	Participatory Learning
18	Network Access Equipment-Global Information Distribution Networks.	CLO2, CLO4	2	Chalk and Talk, Video	Experiential Learning, Participatory Learning
<b>UNIT III (18 Hrs)</b>					
19	Digital Document: Meaning- Definition	CLO2, CLO3	3	Chalk and Talk	Participatory Learning
20	Types of Digital Document. Corporate data Warehouse - Types of data warehouse.	CLO2, CLO3	4	Lecture, PPT	Participatory Learning,
21	Electronic payment system – Introduction – features of e-payment system	CLO2, CLO3	3	Lecture, PPT	Participatory Learning
22	<b>Types of e-payment system:</b> e-token – e-cash – e-money - e-cheque	CLO2, CLO3	3	Link, PPT	Participatory Learning, Blended Learning
23	Credit cards – Debit cards – Smart cards- <b>Pros and Cons of EPS</b>	CLO2, CLO3	3	Link, PPT	Experimental Learning, Blended Learning
24	Application of Electronic payment system including online cashless transaction-Designing e-Payment system.	CLO3, CLO4	2	Lecture, PPT	Problem Based Learning
<b>UNIT IV (17 Hrs)</b>					
25	Current Trends in electronic world: e-Waste – e-Surveillance – e-Governance - e-Care.	CLO2, CLO3	3	Lecture, PPT	Participatory Learning
26	e-Commerce Laws and Regulations in India - Guidelines for consumer	CLO2, CLO3	3	Chalk and Talk	Participatory Learning



	protection.				
27	Network Security and Firewalls	CLO2, CLO3	2	Chalk and Talk	Participatory Learning
28	Client server network security- threats	CLO2, CLO3	2	Chalk and Talk, Video	Experiential Learning, Participatory Learning
29	<b>Firewalls and Data security</b>	CLO2, CLO3	2	Link, Video	Participatory Learning, Blended Learning
30	Encrypted documents and electronic mail	CLO3, CLO4	3	Lecture, PPT	Participatory Learning
31	<b>Technology behind the web.</b>	CLO2, CLO3	2	Link, Video	Experiential Learning, Blended Learning
<b>UNIT V (17 Hrs)</b>					
32	Introduction to Industry 4.0 – Definition	CLO2, CLO3	2	Chalk and Talk	Participatory Learning
33	Goals, Impact and Design Principles	CLO3, CLO4	3	Lecture, PPT	Participatory Learning
34	Technologies of AI in Industry 4.0 – Reasons for Adopting AI in Industry 4.0	CLO3, CLO4	3	Chalk and Talk	Participatory Learning
35	<b>Skills required for adopting Industry 4.0</b>	CLO3, CLO4	2	Link, Video	Participatory Learning, Blended Learning
36	IOT: Concepts - Architecture	CLO2, CLO4	2	Chalk and Talk	Participatory Learning
37	Technologies - <b>Developing IOT Application--</b> Security in IOT	CLO2, CLO4	3	Link, Video	Participatory Learning, Blended Learning
38	Introduction to 5.0.	CLO2, CLO4	2	Chalk and Talk, Video	Experiential Learning, Participatory Learning

### Course Designers

1. Ms. B. Pavithra
2. Ms. S. Janani

S.NO	LEARNING METHODS	PERCENTAGE
1	Participatory Learning	60
2	Experimental Learning	20
3	Problem Solving	20

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>CATEGORY</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>CREDIT</b>
<b>EC25CP1</b>	<b>ADVANCED DATA ANALYSIS TECHNIQUES IN EXCEL PRACTICAL</b>	<b>PRACTICAL</b>	<b>-</b>	<b>-</b>	<b>60</b>	<b>2</b>

### **Preamble**

- To give hands on training in basic computer applications
- To inculcate programming ability to compute data
- To aim at making experts in the most widely used application packages

### **Course Learning Outcomes**

On the successful completion of the course, students will be able to

<b>CLO Number</b>	<b>CLO Statement</b>	<b>Knowledge Level</b>
CLO1	Define the various practical applications using advanced excel to import and export data	K1
CLO2	Demonstrate Excel-based data analysis programs that enhance decision-making, efficiency, including productivity tracking, financial monitoring, and real-time data visualization.	K2
CLO3	Develop data list using outline, auto-filters, and pivot table	K3
CLO4	Construct advanced functions and productivity tools to assist in developing worksheets.	K3

### **Mapping with Programme Learning Outcomes**

<b>CLOs</b>	<b>PLO1</b>	<b>PLO2</b>	<b>PLO3</b>	<b>PLO4</b>	<b>PLO5</b>
<b>CLO1</b>	S	S	S	S	M
<b>CLO2</b>	S	M	S	S	S
<b>CLO3</b>	M	S	S	S	M
<b>CLO4</b>	S	S	S	S	S

S- Strong; M-Medium

### **Syllabus**

1. Enter the data with following fields:

- Serial no
- Name
- Address
- City
- Date of Joining
- Salary
- Course
- Duration
- No of students

j) Total fees

Perform the following:

- a. Change font as bold
  - b. Arrange the alignment as center
  - c. Rename the sheet
  - d. Insert a new sheet
  - e. Move a sheet
  - f. Delete a sheet
  - g. Hide/Unhide Column
  - h. Change Column Width
2. Draw different graphs Column Chart, Line Chart, Pie Chart, Bar Chart, Area Chart, Scatter Chart, for a sample data.
  3. Calculate Simple and Compound Interest. Prepare a statement of Bank customers account showing simple and compound interest calculations for 10 different customers using mathematical and logical functions
  4. Enter the semester marks and calculate total auto-sum and average using function wizard.
  5. Sort: Sort by Color, Reverse List, Randomize List.
  6. Filter: Number and Text Filters, Date Filters, Advanced Filter, Data Form, Remove Duplicates, Outlining Data
  7. Calculate the total profit margin for each sales and create a dual axis chart showing both sales revenue and profit margin by month
  8. Perform predictive analysis to forecast future sales
  9. Create a tree map to visualize sales revenue by product category and sub category
  10. Perform ABC analysis to optimize inventory management and stock control.
  11. Calculate descriptive statistics such as mean, median, standard deviation and Pivot table
  12. Create a simple progress Tracking for COIN Jar Savings calculator.
  13. Create a basic stock portfolio tracker to analyse performance efficiently.
  14. Develop a live data monitor for tracking parking lot occupancy.
  15. Create a Productivity Time Tracker for Food Production Analysis.

### **Pedagogy**

- Demonstration through System, Demonstration through PPT

### **Course Content and Presentation Schedule**

<b>Module. No</b>	<b>Topic</b>	<b>CLO</b>	<b>No. of Periods</b>	<b>Content delivery methods</b>	<b>Learning Methods</b>
1	Enter the data with following fields	<b>CLO 1</b>	4	Presentation	Participatory Learning,

					Experimental Learning
2	Draw different graphs Column Chart, Line Chart, Pie Chart, Bar Chart, Area Chart, Scatter Chart, for a sample data.	<b>CLO 1</b>	4	Presentation	Participatory Learning, Experimental Learning
3	Calculate Simple and Compound Interest. Prepare a statement of Bank customers account showing simple and compound interest calculations for 10 different customers using mathematical and logical functions	<b>CLO 1</b>	4	Presentation	Participatory Learning, Experimental Learning
4	Enter the semester marks and calculate total auto-sum and average using function wizard.	<b>CLO 1</b>	4	Presentation	Participatory Learning, Experimental Learning
5	Sort: Sort by Color, Reverse List, Randomize List.	<b>CLO 1</b>	4	Presentation	Participatory Learning, Experimental Learning
6	Filter: Number and Text Filters, Date Filters, Advanced Filter, Data Form, Remove Duplicates, Outlining Data.	<b>CLO 1</b>	4	Presentation	Participatory Learning, Experimental Learning
7	Calculate the total profit margin for each sales and dual axis chart showing both sales revenue and profit margin by month.	<b>CLO 4</b>	4	Presentation	Participatory Learning, Experimental Learning
8	Perform predictive analysis to forecast future sales.	<b>CLO 2</b>	4	Presentation	Participatory Learning, Experimental Learning
9	Create a tree map to visualize sales revenue by product category and sub category.	<b>CLO 3</b>	4	Presentation	Participatory Learning, Experimental Learning
10	Perform ABC analysis to optimize inventory management and stock control.	<b>CLO 2</b>	4	Presentation	Participatory Learning, Experimental Learning
11	Calculate descriptive statistics such as mean, median, standard deviation and pivot table	<b>CLO 2</b>	4	Presentation	Participatory Learning, Experimental Learning
12	Create a simple progress Tracking for COIN Jar savings calculator.	<b>CLO 2</b>	4	Presentation	Participatory Learning, Experimental Learning
13	Create a basic stock portfolio	<b>CLO 2</b>	4	Presentation	Participatory

	tracker to analyse performance efficiently.				Learning, Experimental Learning
14	Develop a live data monitor for tracking parking lot occupancy.	<b>CLO 4</b>	4	Presentation	Participatory Learning, Experimental Learning
15	Create a Productivity Time Tracker for Food Production Analysis.	<b>CLO 4</b>	4	Presentation	Participatory Learning, Experimental Learning

### Course Designers

1. Mrs.K.Ilavarasi
2. Mrs. T. Subamathi

<b>S.NO</b>	<b>LEARNING METHODS</b>	<b>PERCENTAGE</b>
1	Participatory Learning	50
2	Experimental Learning	50