

## KC College of Arts and Science

Autonomous Institution | Affiliated to Bharathiar University



KCi3L Campus, Saravanampatti, Coimbatore - 641 035



## **Regulations 2024 - 25 for Undergraduate Programme**

Learning Outcomes Based Curriculum Framework- (LOCF) model with Choice Based Credit System (CBCS)

**Programme: B.Com. Computer Applications (B.Com.CA)** 

**Programme Code: BCC** 

(Applicable for the Students admitted during the academic year 2024 - 25 onwards)

#### **Eligibility**

The Student should have passed Higher Secondary Examination.

(As per the eligibility condition given by Bharathiar University Ref.BU/R/B3-B4/Eligibility Condition/2024/9206 dated 24/05/2024)

#### **Program Learning Outcomes (PLOs)**

The successful completion of the B.Com. Computer Applications programme shall enable the students to:

PLO1	Provide students with specific knowledge and skills relevant to their disciplines and							
PLOI	careers.							
	Make the students acquainted with technical and practical concepts; founders must							
PLO2	solvereal business problems using different programming languages.							
	Improve accounting and computer skills required to develop lifelong learning through							
PLO3	IT-enabled knowledge and practice with value-based add-ons and job-oriented courses							
1200	that ensure their sustainability at the organization level.							
	Demonstrate leadership traits, communication skills, and innovative thinking for							
PLO4	optimal performance in personal, professional, societal, and environmental domains.							
	Demonstrate high standards of ethical conduct in the application of computers in							
PLO5	accounting and finance and become socially responsible citizens, contribute to the							
	sustainable growth of the profession and the community.							

## B.Com. Computer Applications Distribution of Credits and Hours for all the Semesters

Part	Courses	No. of courses	Hrs.	Hrs.		its Tota		Semester
I	Language	4	4 X 4	16	4 X 3	12	12	1-4
II	English	4	4 X 4	16	4 X 3	12	12	1-4
	Core Theory (6 hrs./Week)	9	9 X 6	54	9 X 4	36		1-6
	Core Theory (5 hrs./Week)	1	1 X 5	5	1 X 4	4		5
	Core Theory (4 hrs./Week)	2	2 X 4	8	2 X 4	8		1, 3
	Core Theory (4 hrs./Week)	4	4 X 4	16	4X 3	12		1 – 5
	Core Lab (4 hrs./Week)	3	3 X 4	12	3 X 2	6		2,4, 5
	Core Lab (4 hrs./Week)	1	1 X 4	4	1 X 3	3	100	1
	Allied (4 hrs./Week)	4	4 X 4	16	4 X 3	12		1-4
III	Discipline Specific Elective (DSE)	2	2 X 5	10	2 X 3	6		5, 6
	Project	1	1 X 5	5	1 X 5	5		6
	Internship (IT)	1	ı	-	1 X 2	2		5
	Skill Enhancement (SEC)	Enhancement (SEC) 3 3 X 2 6 3			3 X 2	6		3,4, 6
	Foundation Course (FC)	3	3 X 2	6	3 X 2	6		1-3
	Ability Enhancement Compulsory Course (AECC)	3	3 X 2	6	3 X 2	6	14	1 – 4
IV	Ability Enhancement Compulsory Course (AECC) - Online CourseMOOC	1	-	-	1 X 2	2		3
V	Liberal Arts - Extension Activity	-	-	_	2	2	2	6
	Total	46		180		140	140	

## Consolidated Semester wise and Component wise Hours and Credits Distribution

Compaga	Part I		Part II Part I		Ш	Part IV		Part V		Total		
Semester	Hrs	Credits	Hrs	Credits	Hrs.	Credits	Hrs.	Credits	Hrs.	Credits	Hrs.	Credits
1	4	3	4	3	18	14	4	4	1	-	30	24
2	4	3	4	3	18	12	4	4	1	-	30	22
3	4	3	4	3	20	16	2	4	1	-	30	26
4	4	3	4	3	20	14	2	2	-	2	30	24
5	-	-	-	-	30	22	-	1	1	-	30	22
6	-	_	-	-	30	22	-	_	-	-	30	22
Total	16	12	16	12	136	100	12	14	-	2	180	140

## **Curriculum B.Com. Computer Applications**

	Semester – 1								
Course		Course	G N	Hrs./	Ex	xamiı	natio	1	G 114
Code	Part	Category	Course Name	week	Duration	N	Iax N	Iarks	Credits
					in hrs.	CIA	ESE	Total	
24TAM11L	I		Tamil – I						
24HIN11L	I	Language	Hindi – I	4	3	25	75	100	3
24MAL11L	I	Language – I	Malayalam – I	4		25	13	100	3
24FRE11L	I		French – I						
24ENG12L	II	English – I	English – I	4	3	25	75	100	3
24BCC13C	III	Core – I	Financial Accounting - I	6	3	25	75	100	4
24BCC14C	III	Core – II	Programming With C++	4	3	25	75	100	4
24BCC15P	III	Core Lab – I	Lab: Advanced Excel & Financial Modelling	4	3	40	60	100	3
24BCC16A	III	Allied – I	Principles of Management	4	3	25	75	100	3
24ENV1FC	IV	FC – I	Environmental Studies	2	2	50	-	50	2
24QUA1AE	IV	AECC – I	Quantitative Aptitude	2	2	-	50	50	2
	Total							700	24

	Semester – 2										
Course		Course	G N	Hrs./	Examination						
Code	Part	Category	Course Name		Duration			Iarks	Credits		
					in hrs.	CIA	ESE	Total			
24TAM21L	I		Tamil – II								
24HIN21L	I		Hindi – II		3						
24MAL21L	I	Language – II	Malayalam – II	4		25	75	100	3		
24FRE21L	I		French – II								
24ENG22L	II	English – II	English – II	4	3	25	75	100	3		
24BCC23C	III	Core – III	Financial Accounting– II	6	3	25	75	100	4		
24BCC24P	III	Core Lab - II	<b>Lab:</b> Programming with C++	4	3	40	60	100	2		
24BCC25C	III	Core – IV	Fintech & Digital FinanceInnovation	4	3	25	75	100	3		
24BCC26A	III	Allied – II	Business Law	4	3	25	75	100	3		
25HUM2FC	IV	FC – II	Human Rights	2	2	50	-	50	2		
24SOF2AE	IV	AECC – II	Soft Skills	2	2	-	50	50	2		
Т	Total							700	22		

# Semester 1

## Part – I: Language I

(All the Undergraduate Programmes)

Course Code	Course Name	Category	Hrs. / Week	Credits
24TAM11L	Tamil - I	Part - I	4	3

## **Course Objectives**

The course intends to cover

- இலக்கிய வளர்ச்சியை அறிந்துகொள்ளுதல்
- இலக்கியம் படைக்கும் திறன்
- இலக்கிய இலக்கண உரைசெய்தல்
- திறனாய்வு முறையினைக் கற்றுத்தேர்தல்

### **Course Learning Outcomes**

CLO	CLO Statements	Knowledge Level
CLO1	புதுக்கவிதையின் மூலம் வாழ்வியல் விழுமியங்களை உணர்ந்து கொள்ளுதல்.	K1, K2
CLO2	சிறந்த மற்றும் வாழும் கவிஞர்களை அறிந்துகொள்ளுதல்.	K2, K3
CLO3	சிறந்த படைப்பாளர்களின் சிறுகதையில் வெளிப்படும் சமூகச்சிந்தனைகளை அறிந்து விழிப்புணர்வைப் பெறுதல்.	К3
CLO4	தற்கால இலக்கியங்களான புதுக்கவிதை, சிறுகதை தோன்றி வளர்ந்த பின்புலத்தை அறிதல்.	K1, K3
CLO5	மொழியைப் பிழையின்றி பேச, எழுத, கற்கத் தேவையான தமிழ் இலக்கணத்தின் இன்றியமையாமையை உணர்தல். நடைமுறை வாழ்வியலுக்குத் தேவைப்படும் ஆங்கிலக் கடிதத்தைத் தமிழாக்கம் செய்தலுக்கான பயிற்சி பெறுதல்.	K2, K3
	<b>K1</b> - Remember; <b>K2</b> - Understand; <b>K3</b> – Apply	,

Part – I: Tamil – I

Unit	Content	No. of Hours
	(நாட்டுப்பற்று)	
	1. உலகத்தை நோக்கி வினவுதல் - பாரதியார்	
	2. பாரதிதாசன் கவிதைகள் - பாரதிதாசன்	
	● தமிழ்ப்பேறு	
	3. ஒற்றுமையே உயிர்நிலை - கவிமணி	
I	4. தேவதேவன் கவிதைகள் - தேவதேவன்	14
1	• சாலையும் மரங்களும் செருப்பும்	14
	• புதிய வீடு	
	5. ஆலாபனை - கவிக்கோ அப்துல் ரகுமான்	
	• போட்டி	
	● பாதை	
	6. புத்தகச் சந்தை - கவிஞர் வாலி	
	(சமூகம்)	
	1. எட்டாவது சீர் ஈரோடு தமிழன்பன்	
	2. தொலைந்து போனேன் - கவிஞர் தாமரை	
	3. திருநங்கைகள் காகிதப் பூக்கள் - நா. காமராசன்	
II	4. மரங்களைப் பாடுவேன் - வைரமுத்து	14
	5. புள்ளிப் பூக்கள் (ஹைக்கூ) - அமுத பாரதி	
	6. நாட்டுப்புறப் பாடல்கள்	
	• தாலாட்டுப் பாடல், தெம்மாங்கு பாடல், உழவுத்தொழில்	
	(சிறுகதை)	
	1. அகல்யை - புதுமைப்பித்தன்	
III	2. சுமைதாங்கி - ஜெயகாந்தன்	12
111	3. அம்மா ஒரு கொலை செய்தாள் - அம்பை	
	4. சோற்றுக் கணக்கு - ஜெயமோகன்	
	5. தூரத்து உறவு - வைரமுத்து	

Unit	Content	No. of Hours
	(இலக்கிய வரலாறு)	
	1. மரபுக்கவிதையின் தோற்றமும் வளர்ச்சியும்	
IV	2. புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும்	10
	3. ஹைக்கூ கவிதையின் தோற்றமும் வளர்ச்சியும்	
	4. சிறுகதையின் தோற்றமும் வளர்ச்சியும்	
	(இலக்கணம்)	
	1. எழுத்துக்கள் (முதல் எழுத்துக்கள், சார்பெழுத்துக்கள்)	
<b>X</b> 7	2. எழுத்துக்களின் பிறப்பு	10
V	3. மாத்திரைகள்	10
	4. பயிற்சிக்குரியன - மொழிப்பெயர்ப்பு	
	(ஆங்கிலத்திலிருந்து தமிழுக்கு மொழிப்பெயர்த்தல்)	
	Total	60

Ref	erence Books
1	பாரதி பாடல்கள் ஆய்வுப் பதிப்பு, பேரா. ம ரா போ குருசாமி,(2016) தமிழ்ப் பல்கலைக்
•	கழகம், தஞ்சாவூர்
2	ஆலாபனை, அப்துல் ரகுமான்,(2000) கவிக்கோ பதிப்பகம்
3	தாமரை கவிதைகள், தாமரை, (2012) நியூ செஞ்சுரி புக் ஹவுஸ்
4	தமிழ் இலக்கிய வரலாறு, மு வரதராசனார், (2021) சாகித்திய அகாதெமி பதிப்பு
5	புதிய வெளிச்சத்தில் தமிழ் இலக்கிய வரலாறு, முனைவர் க பஞ்சாங்கம், (2017)
3	அன்னம் வெளியீட்டு
6	தமிழ் இலக்கிய வரலாறு, முனைவர் கா கோ வேங்கடராமன்,(2008) கலையக வெளியீடு
7	நல்ல தமிழ் எழுத வேண்டுமா?, அகி பரந்தாமனார் எம். ஏ., (2002)அல்லி நிலையம்
8	100 சிறந்த சிறுகதைகள் ( தொகுதி 1 & 2 ) தொகுப்பு: எஸ் ராமகிருஷ்ணன் (2006)
0	பதிப்பகம்: தேசாந்திரி பதிப்பகம்
9	தமிழ் இலக்கணம் எளிய அறிமுகம் , கோ குமரன் (2010) சந்தியா பதிப்பகம்
10	நாட்டுப்புற இயல் ஆய்வு, சு சக்திவேல்,(2012) மணிவாசகர் பதிப்பகம்

## Part – II : Language II - English -I

( All the Undergraduate Programmes)

Course Code	Course Name	Category	Hours / week	Credits
24ENG12L	English - I	Part - II	4	3

### **Course Objectives**

The course intends to cover

- Various genres of literature.
- Active and passive vocabulary.
- Usage of Grammar and Communication.

#### **Course Learning Outcomes**

CLO	CLO Statements	Knowledge Level			
CLO1	Identify aesthetic sense and appreciate poetry, enhancing creativity and understanding relevant to professional environments.	K1			
CLO2	Understand diverse styles of prose, facilitating versatility in writing and inculcating interpersonal skills.	K2			
CLO3	Apply the characters and the narrative techniques in creative writing and content creation ethically.	К3			
CLO4	Employ vocabulary and grammatical proficiency in communication to enhance clarity in workplace interactions.	К3			
CLO5	Enhance overall communication competence. Practicing these skills in combination reinforces learning and provides students with opportunities to use the language in authentic contexts.	К3			
	K1 - Remember; K2 - Understand; K3 - Apply				

## Part - II: English - I

Unit	Content	No. of Hours			
I	Poetry: Nature 1. I Wandered Lonely as a Cloud - William Wordsworth 2. The Sparrow - Paul Laurence Dunbar 3. Stopping by woods on a snowy Evening – Robert Frost	12			
II	Prose: Friendship 1. The Man in Black - Oliver Goldsmith 2. Of Friendship - Francis Bacon 3. The Blessing of Friends - Sir John Lubbock	12			
III	Short Stories: Morality  1. The Necklace – Guy de Maupassant  2. The Lottery - Shirley Jackson  3. The Monkey's Paw - W. W. Jacobs	12			
IV	Language Competency: Vocabulary  1. Vocabulary: Synonyms, Antonyms, Word Formation  2. Appropriate use of Articles and Parts of Speech  3. Error correction	12			
V	<ol> <li>English for Communication</li> <li>Listening for General and Specific Information.</li> <li>Self - Introduction, Introducing others, Greetings.</li> <li>Reading a prose passage, Reading a poem and Reading a short story</li> <li>Descriptive writing – writing a short descriptive essay of two to three paragraphs.</li> </ol>	12			
	Total Hours	60			
Text I	Books				
1.	Zama, M. (2004). Poetry Down the Ages. Orient Blackswan.				
2.	Goldsmith, O. (1869). The Works of Oliver Goldsmith. J. Dicks				
3.	Bacon, F., & Montagu, B. (1857). The Works of Francis Bacon (Vol. 1). Parry & McM	Iillan.			
Refer	ence Books				
1.	Kumar, V. T. Bhavani, Durga. K. Srinivas. YL. (2018). English in use - A textbook for College Students. (English, Paperback).				
2.	Swan, M. (2005). Practical english usage (Vol. 7). Oxford: Oxford university press.				
Web I	Resources (Swayam / NPTEL)				
1.	https://nptel.ac.in/courses/109105205				

## Part – II : English - II (All the Undergraduate Programmes)

Course Code Course Name		Category	Hours/ Week	Credits
24ENG22L	English-II	Part - II	4	3

#### **Course Objectives**

The course intends to cover

- The literary elements in poetry.
- The critical contemplation and writing in styles of prose texts.
- The modernist techniques and ethics in the narratives of short stories.
- The interpersonal skills essential in the work environment.

#### **Course Learning Outcomes**

CLO	CLO Statements	Knowledge Level	
CLO1	Identify the common techniques underlying free verse and traditional forms of poetry for crafting poems.	K1	
CLO2	Understand humour in prose texts psychologically to master the oratory skills.	K2	
CLO3	Employ empathy and morale in diplomatic Day-to-day circumstances.	К3	
CLO4	Strengthen the writing skills for documentation.	К3	
CLO5	Persist flexibility and mobility in the sequel LSRW.	К3	
K1 - Remember; K2 - Understand; K3 - Apply			

## Part - II: English - II

Content	No. of Hours			
Poetry: Motherhood  1. My Grand Mother's House – Kamala Das  2. Of mother, among others things – A.K Ramanujam  3. Night of the Scorpion – Nissim Ezekiel	12			
Prose: Humour  1. With The Photographer – Stephen Leacock  2. Travel by Train – J.B.Priestley  3. On Forgetting – Robert Lynd	12			
Short Stories: Integrity  1. The taxi driver – K.S. Duggal  2. A Retrieved Reformation- O Henry  3. Kabuliwala - Rabindranath Tagore	12			
Language Competency: Vocabulary  1. Homonyms, Homophones, Homographs Portmanteau words  2. Verbs and Tenses, Subject Verb Agreement  3. Error correction Vocabulary: Synonyms, Antonyms, Word Formation	12			
English for Communication  1. Listening with courtesy and adding ideas and giving opinions during the meeting and making concluding remarks  2. Participating in a meeting: face to face and online  3. Reading news and weather reports  4. Preparing first drafts of short assignments	12			
Total Hours	60			
Books				
Ezekiel Nissim, 1989 .Collected Poems 1952-1988. Oxford University Press.				
Hewings, M. (2000). Advanced English Grammar. Cambridge. University Press.				
ence Books				
Bakshi, S.P. & Sharma, R. (2019). Descriptive English. Arihant Publications (India) L	td.			
Cameron S & Dempsey L. (2019). The Reading Book: A Complete Guide to Teaching Reading. S & L. Publishing.				
	Poetry: Motherhood  1. My Grand Mother's House – Kamala Das  2. Of mother, among others things – A.K Ramanujam  3. Night of the Scorpion – Nissim Ezekiel  Prose: Humour  1. With The Photographer – Stephen Leacock  2. Travel by Train – J.B.Priestley  3. On Forgetting – Robert Lynd  Short Stories: Integrity  1. The taxi driver – K.S. Duggal  2. A Retrieved Reformation- O Henry  3. Kabuliwala - Rabindranath Tagore  Language Competency: Vocabulary  1. Homonyms, Homophones, Homographs Portmanteau words  2. Verbs and Tenses, Subject Verb Agreement  3. Error correction Vocabulary: Synonyms, Antonyms, Word Formation  English for Communication  1. Listening with courtesy and adding ideas and giving opinions during the meeting and making concluding remarks  2. Participating in a meeting: face to face and online  3. Reading news and weather reports  4. Preparing first drafts of short assignments  Total Hours  Books  Ezekiel Nissim, 1989 .Collected Poems 1952-1988. Oxford University Press.  Hewings, M. (2000). Advanced English Grammar. Cambridge. University Press.  ence Books  Bakshi, S.P. & Sharma, R. (2019). Descriptive English. Arihant Publications (India) L  Cameron S & Dempsey L. (2019). The Reading Book: A Complete Guide to T			

Course Code Course Name		Category	Hours/Week	Credits
24BCC13C	Financial Accounting – I	Core - I	6	4

#### **Course Objectives**

This course intends to cover

- Basic accounting concepts, rectifying errors and reconcile bank statements.
- Preparation of Statements on ascertaining business profits.
- Methods of accounting treatment in depreciation.
- Various methods of calculating profit for a single-entry system.
- Accounting aspects on royalty and insurance claims

### **Course Learning Outcomes**

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

CLO	CLO Statements			
CLO1	Remember the concepts and ability to rectify the errors in Bank reconciliation statement	K1		
CLO2	Apply the knowledge in preparing detailed accounts of sole trading concern	K3		
CLO3	Predict the best valuation method for assets.	K2		
CLO4	Construct correct financial statements from incomplete records	К3		
CLO5	Find out the correct accounting treatments for royalty and value of claims from insurance companies in case of loss of stock	K1		
K1- Remember; K2- Understand; K3- Apply				

**CLO – PLO Mapping** 

CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	3	3	3	3	3
CLO2	3	3	3	3	2
CLO3	3	2	2	3	2
CLO4	3	3	3	3	2
CLO5	3	3	2	2	1
3-Substantial(high)		2-Moderate	e (medium)	1-Slight (le	ow)

## Core - I: Financial Accounting – I

Unit	Content	No. of Hours
I	<b>Fundamentals of Financial Accounting</b> : Accounting Basics, Meaning, Definition, Objectives, Accounting Concepts and Conventions - Journal, Ledger Accounts—Subsidiary Books — Trial Balance - Classification of Errors—Preparation of Suspense Account — Need and Preparation of Bank Reconciliation Statement.	17
II	<b>Final Accounts:</b> Final Accounts of Sole Trading Concern- Capital and Revenue Expenditure and Receipts – Preparation of Trading, Profit and Loss Account and Balance Sheet with Adjustments. Rectification of Errors.	18
III	Depreciation and Bills of Exchange: Depreciation - Meaning - Objectives - Accounting Treatments - Types- Straight Line Method - Diminishing Balance method - Conversion method-Annuity Method - Depreciation Fund Method - Insurance Policy Method - Revaluation Method - Depletion Method - Sum of Digits Method - Machine Hour Rate Method .  Bills of Exchange: Definition - Specimens - Discounting of Bills - Endorsement of Bill - Collection - Noting - Renewal - Retirement of Bill under rebate - Insolvency of Acceptor - Accommodation of Bills.	17
IV	Accounting from 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. Average Due Date and Account Current.	20
V	Royalty and Insurance of Claims: Meaning – Minimum Rent – Short Working – Recoupment of Short Working – Lessor and Lessee – Sublease – Accounting Treatment. Insurance Claims –Calculation of Claim Amount-Average clause(Loss of Stock only)	18
	Total Hours	90
	Theory 20% & Problem 80%	
Text E	Books	
1.	Jain.S.P., and Narang.K.L., (2022), Advanced Accountancy, Kalyani Publishers, New 21 <sup>st</sup> Edition.	v Delhi,
2.	Reddy and Murthy.A, (2015), Financial Accounting, Margham Publications, 7 <sup>th</sup> Edition.	
3.	Radhaswamy L and Gupta.R.L., (2015), Advanced Accounting, Sultan Chand Publications, Volume II.	& Sons
4.	Gupta.R.L., and Gupta.V.K., (2014), Financial Accounting, Sultan Chand & Sons Publi 3 <sup>rd</sup> Edition.	
5.	Shukla.M.S.,Grewal.T.S., Gupta.S.C., (2016), Advance Accounts, Vol:II, S.Chand co.Ltd., New Delhi, 19 <sup>th</sup> Edition.	& Sons

Refere	Reference Books			
1.	Dr. Tulsian P C &TusharTulsian, et al, (2023), Advanced Accounting, Sultan Chand & Sons Publications, 3 <sup>rd</sup> Edition.			
2.	Charumathi B and Vinayagam N, (2004), Financial Accounting, Sultan Chand & Sons Publications			
3.	Maheshwari.S.N., (2010), Financial and Management Accounting, Vikas Publications, Noida.			
Web I	Web Resources (Swayam/NPTEL)			
1.	https://archive.nptel.ac.in/courses/110/101/110101131/			
2.	https://archive.nptel.ac.in/courses/110/106/110106147/			
3.	https://onlinecourses.swayam2.ac.in/cec24_mg05/preview			
4.	https://onlinecourses.nptel.ac.in/noc23_mg65/preview			

Course Code Course Name		Category	Hours/Week	Credit
24BCC14C	Programming with C++	Core – II	4	4

## **Course Objectives**

This course intends to cover

- Object-oriented languages and their applications.
- Basic concepts of the C++ language.
- Concepts about various conversions.
- Various inheritance systems.
- Knowledge on files and exception handling.

### **Course Learning Outcomes**

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

CLO	CLO Statements	Knowledge Level			
CLO1	Remember various concepts relating to languages and applications	K1			
CLO2	Understanding various functions of C++ language	K2			
CLO3	Applying various classes and objects	К3			
CLO4	Analyzing different types of inheritance system	K4			
CLO5	Understanding working bout files and exception handling	K2			
	<b>K1</b> - Remember; <b>K2</b> - Understand; <b>K3</b> – Apply; <b>K4</b> – Understand				

#### **CLO – PLO Mapping**

CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	3	2	3	2	2
CLO2	3	2	3	2	2
CLO3	3	2	3	2	2
CLO4	3	2	3	2	2
CLO5	3	2	3	2	2
3 - Substantial (high)		2 - Moderate	(medium)	1 - Slight	(low)

## Core - II: Programming with C++

Unit	Content	No. of Hours				
I	<b>Introduction to C++:</b> Tokens, Keywords, Identifiers, Variables, Operators, Manipulators, Data types -Expressions and Control Structures in C++; Simple C++ Programs.	12				
II	Functions in C++: Main Function - Function Prototyping -Parameters Passing in Functions - Values Return by Functions - Inline Functions - Friend and Virtual Functions					
III	Classes and Objects: Constructors and Destructors; Operator Overloading And Type Conversions - Type of Constructors - Function Definition - Function overloading - Function Overriding.	12				
IV	Inheritance: Single Inheritance - Multilevel Inheritance - Multiple Inheritance - Hierarchical Inheritance - Hybrid Inheritance - Pointers, Virtus Functions and Polymorphism; Managing Console I/O operations.	12				
V	Working with Files: Classes for File Stream Operations -Opening and Closing a File – End of-File Deduction - File Pointers - Updating a File - Error Handling during File Operations - Command-line Arguments.	12				
	Total Hours	60				
_						
Text B	ooks					
Text B	ooks  Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd	ll Publishing				
	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hil					
1.	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones					
1. 2	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones Publications,  BjarneStroustrap, (2000), The C++ Programming, Pearson Education,  Herbert Schilt., (1999), C++ -The Complete Reference:, Tata McGraw Hill, Pub–Ltd, 31	and Bartlett				
1. 2 3.	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones Publications,  BjarneStroustrap, (2000), The C++ Programming, Pearson Education,	and Bartlett				
1. 2 3. 4. 5.	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones Publications,  BjarneStroustrap, (2000), The C++ Programming, Pearson Education,  Herbert Schilt., (1999), C++ -The Complete Reference:, Tata McGraw Hill, Pub–Ltd, 31	and Bartlett				
1. 2 3. 4. 5.	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones Publications,  BjarneStroustrap, (2000), The C++ Programming, Pearson Education,  Herbert Schilt., (1999), C++ -The Complete Reference:, Tata McGraw Hill, Pub–Ltd, 31  John R.Hubbard., Schaum's., (1996), Programming with C++ - outline series.	and Bartlett				
1. 2 3. 4. 5. Refere	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones Publications,  BjarneStroustrap, (2000), The C++ Programming, Pearson Education,  Herbert Schilt., (1999), C++ -The Complete Reference:, Tata McGraw Hill, Pub–Ltd, 31 John R.Hubbard., Schaum's., (1996), Programming with C++ - outline series.  nce Books	and Bartlett				
1. 2 3. 4. 5. Refere	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones Publications,  BjarneStroustrap, (2000), The C++ Programming, Pearson Education,  Herbert Schilt., (1999), C++ -The Complete Reference:, Tata McGraw Hill, Pub–Ltd, 31 John R.Hubbard., Schaum's., (1996), Programming with C++ - outline series.  nce Books  Robert Lafore, Object Oriented Programming in Microsoft C++, Galgotia publication	and Bartlett				
1. 2 3. 4. 5. Refere 1. 2. 3.	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones Publications,  BjarneStroustrap, (2000), The C++ Programming, Pearson Education,  Herbert Schilt., (1999), C++ -The Complete Reference:, Tata McGraw Hill, Pub–Ltd, 31 John R.Hubbard., Schaum's., (1996), Programming with C++ - outline series.  nce Books  Robert Lafore, Object Oriented Programming in Microsoft C++, Galgotia publication  Schildt.H, (1998), C++, The Complete Reference., TMH Edition.	and Bartlett				
1. 2 3. 4. 5. Refere 1. 2. 3.	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones Publications,  BjarneStroustrap, (2000), The C++ Programming, Pearson Education,  Herbert Schilt., (1999), C++ -The Complete Reference:, Tata McGraw Hill, Pub–Ltd, 3r John R.Hubbard., Schaum's., (1996), Programming with C++ - outline series.  nce Books  Robert Lafore, Object Oriented Programming in Microsoft C++, Galgotia publication Schildt.H, (1998), C++, The Complete Reference., TMH Edition.  YeswantKanetkar, (1999), Let us C++ — BPB Publications,.	and Bartlett				
1. 2 3. 4. 5. Refere 1. 2. 3. Web R	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones Publications,  BjarneStroustrap, (2000), The C++ Programming, Pearson Education,  Herbert Schilt., (1999), C++ -The Complete Reference:, Tata McGraw Hill, Pub-Ltd, 3r John R.Hubbard., Schaum's., (1996), Programming with C++ - outline series.  nce Books  Robert Lafore, Object Oriented Programming in Microsoft C++, Galgotia publication  Schildt.H, (1998), C++, The Complete Reference., TMH Edition.  YeswantKanetkar, (1999), Let us C++ — BPB Publications,.	and Bartlett				
1. 2 3. 4. 5. Refere 1. 2. 3. Web R	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones Publications,  BjarneStroustrap, (2000), The C++ Programming, Pearson Education,  Herbert Schilt., (1999), C++ -The Complete Reference:, Tata McGraw Hill, Pub-Ltd, 3r John R.Hubbard., Schaum's., (1996), Programming with C++ - outline series.  Ince Books  Robert Lafore, Object Oriented Programming in Microsoft C++, Galgotia publication  Schildt.H, (1998), C++, The Complete Reference., TMH Edition.  YeswantKanetkar, (1999), Let us C++ — BPB Publications,.  Resources (Swayam / NPTEL)  https://onlinecourses.nptel.ac.in/noc24_cs30/preview	and Bartlett				
1. 2 3. 4. 5. Refere 1. 2. 3. Web R 1. 2.	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw-Hill Company Ltd  Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones Publications,  BjarneStroustrap, (2000), The C++ Programming, Pearson Education,  Herbert Schilt., (1999), C++ -The Complete Reference:, Tata McGraw Hill, Pub-Ltd, 3r John R.Hubbard., Schaum's., (1996), Programming with C++ - outline series.  nce Books  Robert Lafore, Object Oriented Programming in Microsoft C++, Galgotia publication  Schildt.H, (1998), C++, The Complete Reference., TMH Edition.  YeswantKanetkar, (1999), Let us C++ — BPB Publications,.  lesources (Swayam / NPTEL) <a href="https://onlinecourses.nptel.ac.in/noc24_cs30/preview">https://onlinecourses.nptel.ac.in/noc24_cs30/preview</a> https://onlinecourses.swayam2.ac.in/nou24_cs06/preview	and Bartlett				

Course Code	Course Name	Category	Hours/Week	Credits
24BCC15P	Advanced Excel and Financial Modelling	Core Lab - I	4	3

## **Course Objectives**

This course intends to cover

- Advanced features and functions of spreadsheet for data analysis and financial modelling
- Basic finance concepts and their application in Excel-based financial analysis and modelling
- Use of Generative AI tools to enhance productivity and insights in Excel

#### **Course Learning Outcomes**

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

CLO	CLO Statements	Knowledge Level	
CLO1	Demonstrate proficiency in using advanced Excel features and functions for data analysis and manipulation	К3	
CLO2	CLO2 Understand and apply basic finance concepts and terminology in the context of financial analysis and modelling		
CLO3	Build basic financial models in Excel, incorporating assumptions, inputs, and forecasting techniques	К3	
CLO4	Use Generative AI tools in Excel to automate tasks, gain insights, and enhance productivity	К3	
CLO5	Analyze and interpret financial data, perform sensitivity analysis, and make data-driven decisions using Excel	K4	
	<b>K2</b> - Understand; <b>K3</b> - Apply; <b>K4</b> - Analyze		

**CLO - PLO Mapping** 

CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	3	3	2	1	2
CLO2	3	2	1	2	3
CLO3	3	3	3	2	2
CLO4	3	3	3	2	2
CLO5	3	3	2	2	3
3 - Substantial (high)		2 - Moderat	e (medium)	1 - Sligh	nt (low)

## **Core Lab - I: Advanced Excel and Financial Modelling**

Unit	Content			
I	Introduction to Excel: Interface, Navigation, and Basic Functions – Data Types and Formatting – Formulas and Functions – Relative and Absolute Cell Referencing – Conditional Formatting – Data Validation – Charts and Graphs.  Advanced Functions (VLOOKUP, HLOOKUP, INDEX, MATCH) – Data Manipulation (Sort, Filter, Subtotal, Pivot Tables) – Data Analysis (Goal Seek, Scenario Manager, Data Tables) – Excel Shortcuts and Productivity Tips			
II	Advanced Excel: Array Formulas – Named Ranges and Dynamic Named Ranges – Excel Tables – Recording and Running Macros – Introduction to Excel VBA – User Forms and Controls – Excel Add-ins and Customization.  Generative AI Tools in Excel: Introduction to Generative AI – AI-powered Data Analysis and Insights – Automating Tasks with AI-driven Macros – Best Practices and Limitations of AI in Excel Power Query in Excel.			
III	Introduction to Finance: Basic Financial Concepts and Terminology – Understanding Financial Statements (Balance Sheet, Income Statement, Cash Flow Statement) – Ratios and Financial Analysis – Time Value of Money Concepts.			
IV	<b>Excel for Financial Analysis</b> : Financial Functions (PV, FV, NPV, IRR) – Loan and Investment Calculations – Depreciation Schedules – Sensitivity Analysis (Goal Seek, Data Tables)			
V	<b>Basic Financial Modelling:</b> Purpose and Structure of Financial Models – Building a Basic Financial Model in Excel – Assumptions and Inputs – Forecasting Techniques – Scenario Analysis and Sensitivity Testing.			
Text Bo	ooks			
1.	Paul McFedries, Greg Harvey, (2021), Excel 2021 All-in-One For Dummies, Wiley Publishers.			
2.	Alexander, M., Walkenbach, J., Kusleika, D., & Cox, C. (2018). Microsoft Excel 2019 Bible. Wiley.			
Referei	nce Books			
1.	Winston, W. L. (2019). Microsoft Excel Data Analysis and Business Modeling (6th ed.). Microsoft Press.			
2.	Mayes, T. R., & Shank, T. M. (2020). Financial Analysis with Microsoft Excel (9th ed.). Cengage Learning.			
3.	Day, A. (2012). Mastering Financial Modelling in Microsoft Excel: A Practitioner's Guide t Applied Corporate Finance (3rd ed.). FT Press.			
Web R	esources (SWAYAM/NPTEL)			
1.	https://onlinecourses.nptel.ac.in/noc22_mg35/preview			

S.No.	Programs
1.	Interface Navigation and Basic Functions Exercise: Explore Excel's interface, navigate through menus and ribbons, and understand basic navigation. Create a worksheet, apply various formatting techniques (font styles, sizes, cell colors), and use basic functions like SUM and AVERAGE.
2.	Formulas and Functions Exercise: Calculate total sales for a week using SUM, average daily sales using AVERAGE, and highest sales using MAX. Use formulas to calculate simple arithmetic operations. Include more complex functions like IF, COUNTIF, and nested functions.
3.	Relative and Absolute Cell Referencing  Exercise: Create a budget spreadsheet: use relative and absolute references to calculate total costs by applying discounts/taxes to different items. Include exercises on using named ranges and dynamic references in complex formulas.
4.	Conditional Formatting and Data Validation  Exercise: Highlight cells in a sales report that meet certain criteria (e.g., sales > \$1000). Use color scales and data bars to visually represent data trends. Set up data validation rules for a data entry form: restrict entries to certain dates, create drop-down lists, and validate numeric ranges.
5.	Charts and Graphs Creation  Exercise: Create a sales performance chart: use different types of charts (bar, line, pie) to represent data visually. Customize chart elements like titles, legends, and data labels. Create advanced chart types like combo charts and use sparklines for data visualization.
6.	Advanced Functions: VLOOKUP, HLOOKUP, INDEX Exercise: Use VLOOKUP to find prices of products in a list and HLOOKUP to retrieve student grades from a table based on different criteria. Practice using INDEX and MATCH functions to create a more dynamic and flexible lookup solution for a dataset.
7.	Data Manipulation: Sorting, Filtering, Pivot Exercise: Sort and filter a list of employees based on department and salary. Use subtotals to summarize data. Create pivot tables for detailed analysis. Include exercises on grouping data, creating calculated fields/items, and using slicers for interactive analysis.
8.	Power Query Data Transformation Exercise: Open Excel and navigate to the Power Query editor. Familiarize with the Power Query interface: ribbon, query pane, and data preview area. Importing Data: Import data from various sources such as an Excel file, CSV file, and a web page. Combine multiple data sources into a single query.  Data Cleaning and Transformation: Remove unnecessary columns and rows. Filter data based on specific criteria (e.g., date ranges, text values). Split columns by delimiter and merge columns.  Data Aggregation: Group data by specific columns and perform aggregation functions like sum, average, count, etc. Unpivot data to transform it into a more suitable format for analysis.  Data Merging and Appending: Merge queries to combine related data from different sources.

S.No.	Programs		
	Append queries to stack data from multiple tables or files.		
9.	Excel Macros and VBA Basics Exercise: Record and run macros to automate repetitive tasks. Introduction to VBA: create simple VBA scripts to enhance Excel functionality. Include exercises on using VBA to automate data cleaning, report generation, and interactive user forms.		
10.	Financial Analysis and Functions  Exercise: Use financial functions (PV, FV, NPV, IRR) to perform loan and investment calculations.  Create depreciation schedules and perform sensitivity analysis using Goal Seek and Data Tables.  Include exercises on creating financial models and using Excel for financial forecasting.		
11.	Basic Financial Modelling Exercise: Build a basic financial model in Excel: define assumptions, inputs, and outputs. Performentation of the scenario analysis and sensitivity testing. Include exercises on creating dynamic models with line inputs and automated summary reports.		
	Total Hours 60		

Course Code	Course Name	Category	Hours/Week	Credits
24BCC16A	Principles of Management	Allied - I	4	3

## **Course Objectives**

This course intends to cover

- Evolution, Fundamentals and theories of management.
- Elements of planning and steps in decision making
- Concepts of organization structure and the roles of authority and responsibility.
- Recruitment process and employee appraisal.
- Leadership styles and controlling techniques.

## **Course Learning Outcomes**

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

CLO	CLO Statements	Knowledge Level		
CLO1	Exhibit Awareness of ideas that shaped management thinking by the Gurus of management.	K1		
CLO2	Understand the importance of planning and decision making in an organization.	K2		
CLO3	Comprehend the concept of various authorizes and responsibilities of an organization.	K2		
CLO4	Recruit employees and tabulate performance appraisal	К3		
CLO5	Demonstrate the knowledge of leading and controlling an Organisation	K2		
	K1- Remember; K2- Understand; K3- Apply			

**CLO - PLO Mapping** 

one in the mapp	<del>~~</del> 5				
CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	3	3	2	2	3
CLO2	3	2	-	-	3
CLO3	2	3	-	2	3
CLO4	1	3	2	3	3
CLO5	3	3	3	3	3
3-Substantial(high)		2-Moderate	e (medium)	1-Slight	(low)

Allied – I: Principles of Management

	Allied – I: Principles of Management			
Unit	Content	No. of Hours		
Ι	Introduction to Management: Meaning- Definition – Nature and Scope - Levels of Management – Importance - Management Vs. Administration – Management: Science or Art –Evolution of Management Thoughts – F. W. Taylor, Henry Fayol, Peter F. Drucker, Elton Mayo - Functions of Management - Trends and Challenges of Management. Managers – Qualification – Duties & Responsibilities.	12		
II	<b>Planning:</b> Planning – Meaning – Definition – Nature – Scope and Functions – Importance and Elements of Planning – Types – Planning Process - Tools and Techniques of Planning – Management by Objective (MBO). Decision Making: Meaning – Characteristics – Types - Steps in Decision Making – Forecasting.			
III	Organizing: Meaning - Definition - Nature and Scope - Characteristics - Importance - Types - Formal and Informal Organization - Organization Chart - Organization Structure: Meaning and Types - Departmentalization - Authority and Responsibility - Centralization and Decentralization - Span of Management.	12		
IV	<b>Staffing:</b> Introduction - Concept of Staffing- Staffing Process - Recruitment - Sources of Recruitment - Modern Recruitment Methods - Selection Procedure - Test-Interview- Training: Need - Types- Promotion - Management Games - Performance Appraisal - Meaning and Methods - 360 Performance Appraisal - Work from Home - Managing Work from Home [WFH].	12		
V	<b>Directing:</b> Motivation –Meaning - Theories – Communication – Types – Barriers to Communications – Measures to Overcome the Barriers. Leadership – Nature - Types and Theories of Leadership – Styles of Leadership - Qualities of a Good Leader – Successful Women Leaders. Supervision. Co-ordination and Control Co-ordination – Meaning - Techniques of Co-ordination. Control - Characteristics - Importance – Stages in the Control Process - Requisites of Effective Control and Controlling Techniques – Management by Exception [MBE].	12		
	Total Hours	60		
Text I	Books			
1.	Dr. Gupta.C.B., (2013), Business Management, Sultan Chand & Sons Publications, 2 <sup>nd</sup> E	Edition.		
2.	DinkarPagare. (2018), Principles of Management, Sultan Chand & Sons Publications, 2 <sup>nd</sup> Edition.			
3.	Tripathi.P.C.,Reddy.P.N., AshishBajpai, Mark V Cannice, (2022), Principles of Mar Tata McGraw Hill, Noida,11 <sup>th</sup> Edition.	nagement,		
4.	Prasad.L.M., (2019), Principles of Management, S.Chand& Sons Co. Ltd., NewDelhi, Edition.			

Refer	ence Books
1.	Harold Koontz., Heinz Weihrich.,(2020), Essentials of Management, McGraw Hill, Noida,11 <sup>th</sup> Edition.
2.	Ramasamy.T, (2010), Principles of Management, Himalaya Publishing House.
3.	Dr.Balaji. C.D (2019), Principles of Management, Margham Publications.
Web	Resources(Swayam/NPTEL)
1.	https://onlinecourses.swayam2.ac.in/aic22_ge19/preview
2.	https://onlinecourses.swayam2.ac.in/aic20_sp07/preview
3.	https://onlinecourses.swayam2.ac.in/nou24_hs27/preview
4.	https://onlinecourses.swayam2.ac.in/aic20_sp27/preview

#### **Components for Internal Assessment and**

## Distribution of Marks for CIA and ESE (Theory)

	Marks for			Components for CIA									
Max Marks	CIA	ESE	(	CIA – I	CI	A – II	Best of CIA-II & CIA-II	N	Iodel	Attendance	Active Engagement	Total	
100	25	75	Actual	Weightage	Actual	Weightage	Weightage	Actual	Weightage	5	5	25	
100	25	, 5	50	5	50	5	5	75	10		3		

### **Question Paper Pattern**

		Section A			Section B			Section C			
Component	Duration in Hrs.	Type of question	No. of questions	Marks	Type of question	No. of questions	Marks	Type of question	No. of questions	Marks	Total
CIA – I &II	2	MCQ	8	8x1=8	Either or	3	3x6=18	Either or	3	3x8=24	50
Model Exam /ESE	3	MCQ	10	10x1=10	Either or	5	5x5=25	Either or	5	5x8=40	75

## Components for Internal Assessment and Distribution of Marks for CIA (<u>Lab</u>)

	Marks for			Components for CIA							
Max Marks	CIA	ESE		Test – I	Tes	t - II	N	Model	Observation	Total	
100	40	60	Actual	Weightage	Actual	Weightage	Actual	Weightage	5	40	
100	70	00	50	10	50	10	60	15		40	

### **Examination Pattern**

			4			
Component	Duration in Hrs.	Practical	Record	Total Marks	Weightage	
Test – I	2	50	-	50	10	
Test – II	2	50	-	50	10	
Model	3	60	-	60	15	
ESE	3	50	10	60	-	

## **Part – IV : Foundation Courses**

(All the Undergraduate Programmes)

Course Code	Course Name	Category	Hours / Week	Credits
24ENV1FC	Environmental Studies	FC- I	2	2

Unit	Content
I	The Multidisciplinary nature of environmental studies Definition; Scope and importance, Need for public awareness.
II	<ul> <li>Natural Resources: Renewable and non-renewable resources: Natural resources and associated problems. <ul> <li>Forest resources: Use and Over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.</li> <li>Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams benefits and problems.</li> <li>Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.</li> <li>Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.</li> <li>Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, Case studies.</li> <li>Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.</li> </ul> </li> <li>Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles.</li> </ul>
III	Ecosystems  Concept of an ecosystem. Structure and function of an ecosystem. Producers, consumers and decomposers. Energy flow in the ecosystem. Ecological succession. Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following ecosystem:  a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).

Unit	Content
	Biodiversity and its Conservation
	- Introduction-Definition: genetic, species and ecosystem diversity.
	- Bio geographical classification of India.
	- Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and
13.7	option values.
IV	- Biodiversity at global, National and local levels.
	- India as a mega-diversity nation.
	- Hot-spots of biodiversity.
	- Threats to biodiversity: habital loss, poaching of wildlife, man-wildlife conflicts.
	- Endangered and endemic species of India.
	- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.  Environmental Pollution Definition
	- Causes, effects and control measures of: -
	a. Air pollution
	b. Water pollution
	c. Soil pollution
	d. Marine pollution
V	e. Noise pollution
·	f. Thermal pollution
	g. Nuclear hazards
	- Solid waste Management: Causes, effects and control measures of urban and industrial
	wastes.
	- Role of an individual in prevention of pollution.
	- Pollution case studies.
	<ul> <li>Disaster management: floods, earthquake, cyclone and landslides.</li> <li>Social Issues and the Environment</li> </ul>
	- From Unsustainable to Sustainable development.
	_
	<ul><li>Urban problems related to energy.</li><li>Water conservation, rain water harvesting, watershed management.</li></ul>
	- Resettlement and rehabilitation of people; its problems and concerns. Case studies.
	- Environmental ethics: Issues and possible solutions.
	- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and
	holocaust. Case studies.
VI	- Wasteland reclamation.
VI	
	<ul><li>Consumerism and waste products.</li><li>Environment Protection Act.</li></ul>
	<ul><li>Air (Prevention and Control of Pollution) Act.</li><li>Water (Prevention and Control of Pollution) Act.</li></ul>
	- Water (Frevention and Control of Fontution) Act Wildlife Protection Act Forest Conservation Act.
	- Issues involved in enforcement of environmental legislation.
	- Issues involved in emorcement of environmental legislation Public awareness.
	- I done awareness.

Unit	Content
	Human Population and the Environment
	- Population growth, variation among nations.
	- Population explosion-Family welfare Programme.
	- Environment and human health.
VII	- Human Rights.
VII	- Value Education.
	- HIV/AIDS.
	- Women and Child Welfare.
	- Role of information Technology in Environment and human health.
	- Case Studies.
	Field Work (Practical).
	- Visit to a local area to document environmental assets-river/forest/grassland/ hill/mountain.
VIII	- Visit to a local polluted site-Urban/Rural/Industrial/Agricultural.
	- Study of common plants, insects, birds.
	- Study of simple ecosystems-pond, river, hill slopes, etc.
	Total Hours. 30

Web	Resources
1.	https://www.ugc.gov.in/oldpdf/modelcurriculum/env.pdf

## **Components for Internal Assessment and Distribution of Marks for CIA (<u>Theory</u>)**

	Marks for			Components for CIA									
Max Marks	CIA	ESE	C	IA – I	CI	A – II	Best of CIA-I & CIA-II	N	<b>Iodel</b>	Total (Best + Model)			
50	50	_	Actual	Weightage	Actual	Weightage	Weightage	Actual	Weightage	50			
30	30		50	25	50	25	25	50	25	30			

## **Question Paper Pattern**

Duration in Hrs.	Mode of Exam	Type of Questions	No. of Questions	Marks
2	Offline	Open Choice	5 (Out of 8)	5 x 10=50

## **Part – IV : Ability Enhancement Compulsory Courses**

(All the Undergraduate Programmes)

Course Code	Course Name	Category	Hours/Week	Credits
24QUA1AE	Quantitative Aptitude	AECC - I	2	2

## **Course Objectives**

The course intends to cover

- Basic concepts of numbers, time and work, interests, data representation and graphs
- Concepts of permutation, probability, discounts, percentage & profit loss.

## **Course Learning Outcomes**

CLO	CLO Statements		
CLO1	CLO1 Remember and Understand the concepts of numbers and average		
CLO2	Understand about percentage and apply profit & loss related processing.	K2, K3	
CLO3	To understand the concepts of time and work and interest calculations.	K2	
CLO4	To understand about the concepts of permutation, combination and probability.	K2	
CLO5	Understand, Apply and analyze the concept of problem solving involved in graphs and age.	K2,,K3,K4	
	<b>K1</b> - Remember; <b>K2</b> - Understand; <b>K3</b> - Apply; <b>K4</b> - Analyze		

## **Ability Enhancement Compulsory Course - I: Quantitative Aptitude**

Unit	Content	No. of Hours		
I	Numbers - Simplification - BODMAS rule - Algebraic formulas - Decimal fractions - Square root and cube roots - Surds and indices - Divisibility rules - HCF and LCM - same remainder - different remainder - application problems - average - equation - mistaken value - replacement - including/excluding.	6		
II	Percentage - increase/decrease - netchange - salary - election - marks - consumption - population / machine - profit and loss - profit and loss % - finding cp and sp - profit=loss - same product cp and sp with percentage - discount - ratio and proportion - divided into parts - based on numbers - increase/decrease/ income / expenditure - coins - partnership.	6		
III	Time-and-work - individual/combined - alternative days - remaining work - efficiency based - amount split - chain rule - group of male and female or boys - pipes and cistern - finding time - efficiency based — alternative - remaining part - capacity of the tank - simple interest - finding principal - rate of interest — amount -time period - doubles or triples - compound interest - finding rate - finding time, principal - doubles or triples - difference between SI and CI.	6		
IV	Permutation - finding value - vowels come together - vowel never comes together - some letters come together - no two vowels come together - vowels in odd/even places - based on repetition - circular permutation - application - combination - finding value and application - probability - coins - dice-cards - balls and miscellaneous problems - odd man out and number series.	6		
V	Clock - finding angle - reflex angle - gain or loss - calendars - finding particularday - data interpretation - bar chart - line chart - pie chart - table - combined -ages ratio-twice or thrice - addition /subtraction - family based - problems on numbers - equations.	6		
	Total Hours	30		
Text l				
1.	R.S. Aggarwal, Quantitative Aptitude, S.Chand & Company Ltd.,			
Refer	ence Book			
1.	Ashish Arora, Quantitative Aptitude.			
Web 1	Web Resources			
1.	https://www.javatpoint.com/aptitude/quantitative			
2.	https://www.indiabix.com/aptitude/questions-and-answers/			

## **Components for and Distribution of Marks for ESE (Theory)**

## **Ability Enhancement Compulsory Course(AECC)**

Duration in Hrs.	Mode of exam	Type of questions	No. of questions	Marks
2	Online	MCQ	50	50x1=50

# Semester 2

#### Semester - 2

Course Code	Course Name	Category	Hours/ Week	Credit
24TAM21L	Tamil – II	Language - II	4	3

## **Course Learning Outcomes**

CLO	CLO Statements		
CLO1	அற இலக்கியங்கள் வழி வாழ்வியல் ஒழுக்கங்களைக் கற்றுத் தருதல்.		
CLO2	பக்தி இலக்கியங்கள் வழி பக்தி நெறிகளை உணர்த்துதல்.	K2	
CLO3	தமிழில் உரைநடை இலக்கியப் படைப்பாளர்களின் CLO3 சிந்தனைகளை எடுத்துரைத்தல்.		
CLO4	தமிழ் இலக்கிய வரலாற்றில் அற இலக்கியம் மற்றும் உரைநடையின் தாக்கம் குறித்து அறிதல்.	K1, K3	
CLO5	O5 பிழையின்றி எழுத இலக்கணங்களைக் கற்றுத் தருதல்.		
<b>K1</b> - Remember; <b>K2</b> - Understand; <b>K3</b> – Apply			

## Part – I: Tamil – II

Unit	Content	No. of Hours
	(அறம்)	
	1. திருக்குறள்	
	• புகழ்	
I	● வினை செயல்வகை	14
	∙ நெஞ்சொடு கிளத்தல்	
	2. திரிகடுகம்(தேர்ந்தெடுக்கப்பட்ட 10 பாடல்கள்)	
	3. பழமொழி நானூறு(தேர்ந்தெடுக்கப்பட்ட 10 பாடல்கள்)	
	(பக்தி)	
	1. அபிராமி அந்தாதி( 10 பாடல்கள்) - அபிராமி பட்டர்	
	2. உமர்கயாம் பாடல்கள் (தனிப்பாடல்கள்) - கவிமணி தேசிய	
II	விநாயகம் பிள்ளை	14
	3. முத்துக்குமாரசாமி பிள்ளைத்தமிழ்(தாலப் பருவம்) – குமரகுருபரர்	
	4. இயேசுகாவியம் - மலைப்பொழிவு - கண்ணதாசன்	
	5. சித்தர் பாடல்கள் - சிவவாக்கியர் பாடல்	
	(கலை மற்றும் பண்பாடு )	
	1. அறம் எனப்படுவது - அமுதன்	
	2. ஏட்டில் எழுதா இலக்கியம் - ஔவை துரைச்சாமி	
III	3. கீழடி - தொல்லியல் துறை, வெளியீடு	12
	4. மனம் எனும் சொர்க்கவாசல் - டாக்டர் எம்.எஸ்.உதயமூர்த்தி	
	5. ஆளுமைத் திறன் - அறிவுக்கதிர்	
	(அரசுப்பணி சிறப்பிதழ்)	
	(இலக்கிய வரலாறு)	
IV	1. பதினெண் கீழ்க்கணக்கு நூல்கள்	10
	2. உரைநடையின் தோற்றமும் வளர்ச்சியும்	
	(இலக்கணம்)	
V	1. சொல்லின் வகைகள்	10
V	2. வேற்றுமைத் தொகைகள்	10
	3. பயிற்சிக்குரியன:(விண்ணப்பங்கள், மடல்கள் எழுதச் செய்தல்)	
	Total Hours	60

Refe	rence Books
1	முத்துக்குமாரசாமி பிள்ளைத்தமிழ்,(2021) கமலா முருகன், சாரதா பதிப்பகம்
2	இயேசு காவியம், கவிஞர் கண்ணதாசன்,(2006) கலைக்காவிரி பதிப்பகம்
3	உரைகளும் உரையாசிரியர்களும்,(2013) தி சு நடராசன் நியூ செஞ்சுரி புக் ஹவுஸ்
4	அபிராமி அந்தாதி, முனைவர் சி சேதுராமன்,(2010) நியூ செஞ்சுரி புக் ஹவுஸ்
5	புதிய வெளிச்சத்தில் தமிழ் இலக்கிய வரலாறு, முனைவர் க பஞ்சாங்கம், (2017) அன்னம்
3	வெளியீட்டு
6	தமிழ் இலக்கிய வரலாறு, மு வரதராசனார்,(2021) சாகித்ய அகாடமி பதிப்பு
7	தமிழ் உரைநடை வரலாறு, வி செல்வநாயகம்,(2003) அடையாளம் பதிப்பகம்
8	தமிழ் இலக்கிய வரலாறு, முனைவர் கா கோ வேங்கடராமன்,(2010) கலையக வெளியீடு
9	எண்ணங்கள் - டாக்டர் எம் எஸ் உதயமூர்த்தி,(2016) வெளியீடு: கங்கை புத்தக நிலையம்,
	சென்னை
10	அடோன் தமிழ் இலக்கணம், புலவர் பொன்மணிமாறன்,(2011) அருண் பப்ளிஷிங்

## **Part – II : English - II** (All the Undergraduate Programmes)

Course Code	Course Name	Category	Hours/ Week	Credits
24ENG22L	English-II	Part - II	4	3

### **Course Objectives**

The course intends to cover

- The literary elements in poetry.
- The critical contemplation and writing in styles of prose texts.
- The modernist techniques and ethics in the narratives of short stories.
- The interpersonal skills essential in the work environment.

#### **Course Learning Outcomes**

CLO	CLO Statements	Knowledge Level	
CLO1	Identify the common techniques underlying free verse and traditional forms of poetry for crafting poems.	K1	
CLO2	Understand humour in prose texts psychologically to master the oratory skills.	K2	
CLO3	Employ empathy and morale in diplomatic Day-to-day circumstances.	К3	
CLO4	Strengthen the writing skills for documentation.	К3	
CLO5	Persist flexibility and mobility in the sequel LSRW.	К3	
K1 - Remember; K2 - Understand; K3 - Apply			

## Part - II: English - II

Unit	Content	No. of Hours			
I	Poetry: Motherhood 4. My Grand Mother's House – Kamala Das 5. Of mother, among others things – A.K Ramanujam 6. Night of the Scorpion – Nissim Ezekiel	12			
II	Prose: Humour 4. With The Photographer – Stephen Leacock 5. Travel by Train – J.B.Priestley 6. On Forgetting – Robert Lynd	12			
III	Short Stories: Integrity 4. The taxi driver – K.S. Duggal 5. A Retrieved Reformation- O Henry 6. Kabuliwala - Rabindranath Tagore	12			
IV	Language Competency: Vocabulary 4. Homonyms, Homophones, Homographs Portmanteau words 5. Verbs and Tenses, Subject Verb Agreement 6. Error correction Vocabulary: Synonyms, Antonyms, Word Formation	12			
V	English for Communication 5. Listening with courtesy and adding ideas and giving opinions during the meeting and making concluding remarks 6. Participating in a meeting: face to face and online 7. Reading news and weather reports 8. Preparing first drafts of short assignments	12			
	Total Hours	60			
Text l	Books				
1.	Ezekiel Nissim, 1989 .Collected Poems 1952-1988. Oxford University Press.				
2.	Hewings, M. (2000). Advanced English Grammar. Cambridge. University Press.				
Refer	ence Books				
1.	1. Bakshi, S.P. & Sharma, R. (2019). Descriptive English. Arihant Publications (India) Ltd.				
2.	Cameron S & Dempsey L. (2019). The Reading Book: A Complete Guide to Teaching Reading. S & L. Publishing.				
3. Sherman B. (2014) Skimming and Scanning Techniques. Liberty University Press.					
	Web Resources (Swayam / NPTEL)  1. https://nptel.ac.in/courses/109103020				
1.	https://hptc1.ac.m/courses/109103020				

Course Code	rrse Code Course Name		Hours/Week	Credit
24BCC23C	Financial Accounting - II	Core – III	6	4

#### **Course Objectives**

This course intends to cover

- Various methods of accounting, such as Hire purchase and Installments System.
- Branch accounts and allocation of expenses under departmental accounts.
- Partnership accounts relating to admission, retirement, and death.
- Knowledge regarding partnership accounts relating to the dissolution of the firm.
- Requirements of International Accounting Standards for financial reporting.

#### **Course Learning Outcomes**

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

CLO	CLO Statements	Knowledge Level
CLO1	Find out the accounting treatment in Hire purchase accounts and Instalment systems.	K1
CLO2	CLO2 Apply the knowledge in preparing Branch and Departmental Accounts.	
CLO3	CLO3  Understand the accounting treatment for admission and retirement in partnership	
CLO4	CLO4 Identify the settlement of accounts at the time of dissolution of a firm.	
CLO5 Recognize the need and development of accounting standards and the role of IFRS.		K1
	K1- Remember; K2- Understand; K3- Apply	

20 120 120 120					
CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	3	2	3	3	2
CLO2	3	2	3	3	3
CLO3	3	2	2	3	3
CLO4	3	2	3	3	2
CLO5	3	3	3	3	3
3-Substantial(high)		2-Moderate	e (medium)	1-Slight	(low)

#### **Core – IV: Financial Accounting – II**

Unit	Content	No. of Hours			
I	<b>Hire Purchase and Instalment System:</b> Hire Purchase System – Accounting Treatment – Calculation of Interest - Default and Repossession - Hire Purchase Trading Account. <b>Instalment System:</b> Calculation of Profit	18			
II	Branch and Departmental Accounts: Branch – Dependent Branches: Accounting Aspects - Debtors system -Stock and Debtors system – Distinction between Wholesale Profit and Retail Profit – Independent Branches - Foreign Branches.  Departmental Accounts: Basis of Allocation of Expenses – Inter- Departmental Transfer at Cost or Selling Price.	18			
III	<b>Partnership Accounts – I:</b> Partnership Accounts: –Admission of a Partner – Treatment of Goodwill- Calculation of Hidden Goodwill –Retirement of a Partner – Death of a Partner.	20			
IV	<b>Partnership Accounts – II:</b> Dissolution of Partnership - Methods – Settlement of Accounts Regarding Losses and Assets – Realization account – Treatment of Goodwill – Preparation of Balance Sheet - Insolvency of a Partner – One or more Partners insolvent – All Partners insolvent - Garner Vs Murray – Accounting Treatment - Piecemeal Distribution – Surplus Capital Method – Maximum Loss Method.	20			
V	Accounting Standards for financial reporting: Objectives and Uses of Financial Statements for Users-Role of Accounting Standards - Development of Accounting Standards in India- Requirements of International Accounting Standards - Role of Developing IFRS- IFRS Adoption or Convergence in India-Implementation Plan in India- Ind AS- An Introduction- AS 1, AS 4, AS 5, AS 19 and AS 21 – Difference between Ind AS and IFRS.	14			
	Total Hours	90			
Text 1	Books				
1.	Radhaswamy L and Gupta.R.L., (2015), Advanced Accounting, Sultan Chand & Sultan C	ons			
2.	Shukla.M.S., Grewal.T.S., Gupta.S.C., (2016), Advanced Accounts, S. Chand & Sco.Ltd., New Delhi, Vol:II, 19 <sup>th</sup> Edition.	ons			
3.	Gupta.R.L., and Gupta.V.K., (2014), Financial Accounting, Sultan Chand & Sons Publications, 3 <sup>rd</sup> Edition.				
4.	Jain S.P, Narang.K.L, Simmi Agarwal, Monika Sehgal, (2021), Advanced Account Kalyani publisher, Volume – II.	tancy,			
5.					
Refer	Reference Books				
1.	CA Sharad K Maheshwari, Dr. Suneel K Maheshwari, Dr. S. N. Maheshwari, (2022), Financial Accounting, Vikas Publishing, 7 <sup>th</sup> Edition.				
2.	Dr. Tulsian P C &Tushar Tulsian, et al, (2023), Advanced Accounting, Sultan Cha Sons Publications, 3 <sup>rd</sup> Edition.	nd &			
3.	Charumathi B and Vinayagam N, (2004), Financial Accounting, Sultan Chand & Sons Publications.				

Web	Web Resources (Swayam/NPTEL)		
1.	https://onlinecourses.swayam2.ac.in/nou24_cm02/preview		
2.	https://onlinecourses.swayam2.ac.in/imb24_mg08/preview		
3.	https://onlinecourses.swayam2.ac.in/cec24_mg05/preview		
4.	https://onlinecourses.swayam2.ac.in/aic20_sp60/preview?		

Course Code	Course Name	Category	Hours/Week	Credit
24BCC24P	Programming with C++ Lab	Core Lab – II	4	2

## **Course Objective**

This course intends to cover

- Object oriented technology.
- Information on codes and arrays.
- User functions and member function
- Analyze classes and objects.
- Reusability features using the concept of inheritance.

#### **Course Learning Outcomes**

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

CLO	CLO Statements	
CLO1	Remember the basics of Building any programming language	K1
CLO2	Explain about Arrays with illustration	K2
CLO3	Analyze the benefits of using Friend Function	K4
CLO4	Develop programs for overloading Unary and Binary Operators	K4
CLO5	Access the memory Address of any variable using pointers	К3
	<b>K1</b> – Remember; <b>K2</b> - Understand; <b>K3</b> – Apply; <b>K4</b> – Analyze	

CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	3	3	3	3	3
CLO2	3	3	2	2	3
CLO3	3	2	3	3	2
CLO4	3	3	3	2	3
CLO5	3	3	3	3	3
3 - Substantial (high)		2 - Moderate	e (medium)	1 - Sligh	t (low)

## **Core Lab – II: Programming with C++ Lab**

S. No.	Programs		
1.	Illustrate the concept of classes and objects		
2.	Implement a program to calculate factorial of a given number		
3.	Program to check whether a number is prime or not		
4.	Illustrate the concept of console I/O operations		
5.	Develop a program to print odd numbers using Looping Structure		
6.	Given that an EMPLOYEE class contain the following members: Emp number, Emp Name, Basic, DA, IT, Net pay and print data members		
7.	Program to calculate simple & compound interest		
8.	Construct a program for Function Overloading		
9.	Illustrate the concept of multi-level inheritance.		
10.	Implement the concept of Arrays		
11.	Program to print the length of a Box using Friend Function		
12.	Implement a program for bank transaction using Constructor & Destructor		
13.	Construct a program for implementation of files		
	Total Hours 60		
Text Bo	ok		
1.	Balagurusamy.E (2013) Object-Oriented Programming with C++, 7thEdition.		
Referen	ce Books		
1.	Ashok N Kamthane (2003) Object-Oriented Programming with ANSI and TurboC++		
2.	Maria Litvin & Gray Litvin (2002) C++ for you, Vikas publication.		
Web Re	sources (Swayam / NPTEL)		
1.	https://nptel.ac.in/courses/106101208		
2.	https://onlinecourses.nptel.ac.in/noc24_cs44/preview		
3.	https://onlinecourses.swayam2.ac.in/aic20_sp06/preview		

Course Code	Course Name	Category	Hours/Week	Credit
24BCC25C	Fintech & Digital Finance Innovation	Core – IV	4	3

#### **Course Objectives**

This course intends to cover

- The historical development, current trends, and future prospects of the fintech industry, including the key drivers and enablers of fintech innovation.
- Various digital payment methods and block chain technology, including their applications, benefits, challenges, and the impact on traditional financial systems.
- The applications of artificial intelligence and machine learning in finance, such as fraud detection, credit scoring, robo-advisory, algorithmic trading and to discuss the associated ethical considerations and challenges.
- Insurtech landscape and the latest innovations in insurance distribution, underwriting, claims management, and peer-to-peer insurance, emphasizing the role of technology in transforming the insurance industry.

#### **Course Learning Outcomes**

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the evolution, landscape, and key drivers of fintech and digital finance innovations.	K2
CLO2	Analyze the functionality and applications of digital payment systems, including mobile payments, contactless payments, and crypto currency transactions.	K4
CLO3	Demonstrate knowledge of block chain technology and its financial applications, including smart contracts and distributed ledger technology.	K3
CLO4	Apply artificial intelligence (AI) and machine learning (ML) techniques in various financial services contexts, such as fraud detection, credit scoring, and robo-advisory	K3
CLO5	Evaluate the innovations and impact of insurtech on insurance distribution, underwriting, and claims management.	K4
	K1 - Remember; $K2$ - Understand; $K3$ - Apply; $K4$ - Analyze	

CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	3	2	3	3	2
CLO2	3	2	3	3	3
CLO3	3	2	2	3	3
CLO4	3	2	3	3	2
CLO5	3	3	3	3	3
3 - Substantial (high)		2 - Moderat	te (medium)	1 - Sligh	nt (low)

**Core – IV: Fintech and Digital Finance Innovations** 

Unit	Content	No. of Hours
I	Introduction to Fintech and Digital Finance: Overview of Fintech Landscape – Evolution of Digital Finance – Key Drivers and Enablers of Fintech Innovation – Impact of Fintech on Traditional Financial Services.	10
II	<b>Digital Payments and Transactions:</b> Mobile Payments and Wallets – Contactless Payments (NFC, QR Codes) – Peer-to-Peer (P2P) Payments – Cryptocurrency and Blockchain in Payments.	10
III	Blockchain and Distributed Ledger Technology (DLT): Introduction to Blockchain and DLT – How Blockchain Works – Smart Contracts – Blockchain Applications in Finance (Trade Finance, Clearing and Settlement, Identity Management)  Artificial Intelligence (AI) and Machine Learning (ML) in Finance: Overview of AI and ML – Applications in Financial Services (Fraud Detection, Credit Scoring, Robo-Advisory, Algorithmic Trading) – Challenges and Ethical Considerations	14
IV	Insurtech and Digital Insurance: Insurtech Landscape – Innovations in Insurance Distribution, Underwriting, and Claims Management – Usage-Based Insurance (UBI) – Peer-to-Peer (P2P) Insurance. Crowdfunding and Alternative Lending: Peer-to-Peer (P2P) Lending – Equity Crowdfunding – Invoice Trading – Impact of Alternative Lending on Traditional Banking	9
V	Cloud accounting, Forensic Accounting and Insurance applications:  Overview of Cloud Accounting – Benefits over Traditional Accounting – Key Cloud Accounting Software, Setting Up Systems – Data Migration – Customization – Security and Data Protection. Real-time Reporting – Automated Bank Feeds – Expense Management – Invoice Processing – Inventory Management. Multi-User Access – Mobile Accessibility – Integration with Business Tools.  Overview – Role of Forensic Accountants – Key Skills. Types of Fraud (Financial Statement Fraud, Asset Misappropriation, Corruption) – Detection Techniques (Data Analysis, Red Flags, Ratio Analysis) – Internal Controls. Evidence Gathering – Interviewing – Document Analysis – Digital Forensics. Understanding Legal Standards and Regulations – Preparing Forensic Reports – Expert Witness Testimony – Ethical Considerations. Overview of Insurance Industry – Types of Insurance (Life, Health, Property, Casualty). Role of AI and ML – Predictive Analytics – Claims Processing Automation – Fraud Detection. Understanding Risk Assessment – Actuarial Analysis – Underwriting Processes. Compliance and Regulations – Legal Requirements – Reporting Standards.	17
	Total Hours	60

Text l	Books
1.	Niels Pedersen, (2020), Financial Technology, Kogan Page.
2.	Dr. Nisha Sharma, Dr. Vishal Dattana, Dr. Srihari Rajesh Rao (2024), Introduction to FINTECH, Independently published.
Refer	ence Books
1.	Ms. Anshu Gauba, Dr. Pooja Maharajan, Mr. Ajeet Singh Sindhu (2024), FINTECH Innovation AI in Commerce and Management, Redshine Publication.
2.	Jaspal Singn, (2022) Financial Technology and Digital Banking, New Century Publication.
Web 1	Resources (Swayam / NPTEL)
1.	https://www.coursera.org/specializations/wharton-fintech
2.	https://www.coursera.org/learn/bcg-uva-darden-digital-transformation

Course Code	Course Name	Category	Hours/Week	Credit
24BCC26A	<b>Business Law</b>	Allied – II	4	3

#### **Course Objectives**

This course intends to cover

- Basics of Commercial law and terms of a valid contract.
- Knowledge of performance contracts.
- Requirements of bailment and pledge.
- Duties of a seller and rights of unpaid seller.
- Understand the terms of negotiable instruments and types.

#### **Course Learning Outcomes**

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

CLO	CLO Statements	Knowledge Level
CLO1	Demonstrate awareness about basic legal framework governing business.	K2
CLO2	Summarize the rules related to the contracts and issues related to termination and breach of contracts.	K2
CLO3	Identify the rules related to indemnity and guarantee, bailment and pledge	К3
CLO4	Explain the various laws to safeguard the rights and duties of a buyer and seller.	K2
CLO5	Enhance knowledge about negotiable instruments and parties involved in it.	K1
	K1- Remember; K2- Understand; K3- Apply	

CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	3	3	3	3	3
CLO2	3	3	3	3	3
CLO3	3	3	3	3	3
CLO4	3	3	3	3	2
CLO5	3	3	3	3 2	
3-Substanti	ial(high)	2-Moderate	e (medium)	1-Slight	(low)

## Allied – II: Business Law

Unit	Content	No. of Hours
I	Introduction: Mercantile Law: Meaning – Definition – Nature – Objectives – Sources of Mercantile Law. Definition of Contract - Essentials of Valid Contract - Classification of Contract - Offer and Acceptance - Consideration - Capacity of Contract - Free Consent - Legality of Object - Contingent Contracts - Void Contract	12
II	Performance Contract: Meaning of Performance - Offer to Perform - Devolution of Joint liabilities & Rights - Time and Place of Performance - Reciprocal Promises - Assignment of Contracts - Remedies for Breach of contract - Termination and Discharge of Contract - Quasi Contract	
Ш	Contract of Indemnity and Guarantee: Contract of Indemnity and Contract of Guarantee - Extent of Surety's Liability - Kinds of Guarantee - Rights of Surety - Discharge of Surety - Bailment and Pledge - Bailment - Concept - Essentials and Kind - Classification of Bailments, Duties and Rights of Bailor and Bailee - Law of Pledge - Meaning - Essentials of Valid Pledge - Pledge and Lien - Rights of Pawner and Pawnee.	13
IV	Elements of Law relating to Sale of Goods: Definition of Contract of Sale - Formation - Essentials of Contract of Sale - Conditions and Warranties - Transfer of Property - Contracts involving Sea Routes - Sale by Non-owners - Rights and Duties of Buyer - Rights of an Unpaid Seller - Consumer Protection Act 2019.	12
V	Elements of Law relating to Negotiable Instruments: Definition of a Negotiable Instrument; Instruments Negotiable by Law and by Custom; Types of Negotiable Instruments; Parties to a Negotiable Instrument- Duties, Rights, Liabilities and Discharge; Material Alteration; Crossing of Cheques; Payment and Collection of Cheques and Demand Drafts; Presumption of Law as to Negotiable Instruments.	12
TD.	Total Hours	60
1.	Cylcher S.S. (2007) Menontile Levy Evertherly 2 <sup>rd</sup> edition	
2.	Gulshan, S.S., (2007), Mercantile Law, Excel books, 3 <sup>rd</sup> edition, Kapoor, N.D., (2022), Elements of Mercantile Law, Sultan Chand & sons, 38 <sup>th</sup> edition	<u> </u>
3.	Shukla,M.C., (2021), Mercantile Law, S.Chand & Company.	.,
	erence Books	
1.	Kuchhal, M.C., (2006), Mercantile Law, Vikas Publishing House Pvt. Ltd, 6 <sup>th</sup> edition,	
2.	Gogna, P.P.S., (2016), Mercantile Law, S.Chand & Samp; sons Company, 7th revised ed	dition
Wel	Resources (Swayam/NPTEL)	
1.	https://onlinecourses.swayam2.ac.in/nou24_cm11/preview	
2.	https://onlinecourses.swayam2.ac.in/cec24_cm02/preview	
3.	https://onlinecourses.nptel.ac.in/noc24_mg11/preview	
4.	https://onlinecourses.swayam2.ac.in/nce24_sc06/preview	
5.	https://onlinecourses.swayam2.ac.in/nce24_sc05/preview	

#### **Components for Internal Assessment and**

#### **Distribution of Marks for CIA and ESE (Theory)**

	Marks for Component							or CIA					
Max Marks	CIA	ESE	C	CIA – I	CI	A – II	Best of CIA-I & CIA-II	Model		Attendance	Active Engagement	Total	
100	25	75	Actual	Weightage	Actual	Weightage	Weightage	Actual	Weightage	5	5	25	
100	23	75	50	5	50	5	5	75	10		3	23	

#### **Question Paper Pattern**

	in Hrs.	Section A			Section B			Section C			
Component		Type of question	No. of questions	Marks	Type of question	No. of questions	Marks	Type of question	No. of questions		Total
CIA – I &II	2	MCQ	8	8x1=8	Either or	3	3x6=18	Either or	3	3x8=24	50
Model Exam /ESE	3	MCQ	10	10x1=10	Either or	5	5x5=25	Either or	5	5x8=40	75

## Components for Internal Assessment and Distribution of Marks for CIA (<u>Lab</u>)

	Marks for			Components for CIA						
Max Marks	CIA	A ESE Test - I Test - II		t - II	N	Aodel	Observation	Total		
100	40	60	Actual	Weightage	Actual	Weightage	Actual	Weightage	5	40
100	100   40   60		50	10	50	10	60	15	3	40

#### **Examination Pattern**

			Marks				
Component	Duration in Hrs.	Practical Record		Total Marks	Weightage		
Test – I	2	50	-	50	10		
Test – II	2	50	-	50	10		
Model	3	60	-	60	15		
ESE	3	50	10	60	-		

## **Part – IV : Foundation Courses**

(All the Undergraduate Programmes)

Course Code	Course Name	Category	Hours / Week	Credits
24HUM2FC	Human Rights	FC - II	2	2

Unit	Content						
	Concept of Human Values, Value Education Towards Personal Development						
	Aim of Education and Value Education; Evolution of Value Oriented Education; Concept of						
	Human Values; Types of Values; Components of Value Education.						
	Personal Development:						
T	Self-analysis and Introspection; Sensitization towards Gender Equality, Physically						
Ι	Challenged, Intellectually Challenged. Respect to - Age, Experience, Maturity, Family						
	Members, Neighbors, Co-workers.						
	Character Formation towards Positive Personality:						
	Truthfulness, Constructively, Sacrifice, Sincerity, Self-Control, Altruism, Tolerance,						
	Scientific Vision.						
	Value Education Towards National and Global Development						
	National and International Values:						
	Constitutional or National Values - Democracy, Socialism, Secularism, Equality, Justice,						
	Liberty, Freedom, and Fraternity.						
II	Social Values - Pity and Probity, Self-Control, Universal Brotherhood.						
11	Professional Values - Knowledge Thirst, Sincerity in Profession, Regularity, Punctuality, and Faith.						
	Religious Values - Tolerance, Wisdom, Character.						
	Aesthetic Values - Love and Appreciation of Literature and Fine Arts and Respect for the						
	Same.						
	National Integration and International Understanding.						
	Impact of Global Development on Ethics and Values						
	Conflict of Cross-Cultural Influences, Mass Media, Cross-Border Education, Materialistic						
III	Values, Professional Challenges, and Compromise.						
111	Modern Challenges of Adolescent Emotions and Behavior; Sex and Spirituality: Comparison						
	and Competition; Positive and Negative Thoughts.						
	Adolescent Emotions, Arrogance, Anger, Sexual Instability, Selfishness, Defiance						
	Therapeutic Measures						
	Control of the Mind through						
	a. Simplified Physical Exercise						
	b. Meditation – Objectives, Types, Effect on Body, Mind and Soul						
IV	c. Yoga – Objectives, Types, Asanas						
	d. Activities:						
	(i) Moralisation of Desires						
	(ii) Neutralisation of Anger						
	(iii) Eradication of Worries						
	(iv) Benefits of Blessings						

Content
Human Rights  1. Concept of Human Rights – Indian and International Perspectives a. Evolution of Human Rights b. Definitions under Indian and International Documents  2. Broad Classification of Human Rights and Relevant Constitutional Provisions. a. Right to Life, Liberty and Dignity b. Right to Equality c. Right against Exploitation d. Cultural and Educational Rights e. Economic Rights f. Political Rights g. Social Rights 3. Human Rights of Women and Children a. Social Practice and Constitutional Safeguards (i) Female Feticide and Infanticide (ii) Physical Assault and harassment (iii) Domestic Violence (iv) Conditions of Working Women  4. Institutions for Implementation a. Human Rights Commission b. Judiciary  5. Violations and Redressal a. Violation by State b. Violation by Individuals c. Nuclear Weapons and terrorism d. Safeguards

#### Web Resources

1. https://syllabus.b-u.ac.in/syl\_college/ug\_ve.pdf

# **Components for Internal Assessment and Distribution of Marks for CIA (<u>Theory</u>)**

Max Marks	Marl	rks for CIA								
	ks CIA ESE		C	IA – I	CI	A – II	Best of CIA-I & CIA-II	M	lodel	Total (Best + Model)
50	50	_	Actual	Weightage	Actual	Weightage	Weightage	Actual	Weightage	50
30	30		50	25	50	25	25	50	25	30

## **Question Paper Pattern**

Duration in Hrs.	Mode of Exam	Type of Questions	No. of Questions	Marks
2	Offline	Open Choice	5 (Out of 8)	5 x 10=50

## **Part – IV : Ability Enhancement Compulsory Courses**

(All the Undergraduate Programmes)

Course Code	Course Name	Category	Hours / Week	Credits
24SOF2AE	Soft Skills	AECC - II	2	2

#### **Course Objectives**

The course intends to cover

• The essential soft skills that is crucial for success in today's dynamic and interconnected workplace.

#### **Course Learning Outcomes**

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

CLO	CLO Statements					
CLO1	Understand the comprehensive skills to participate actively in conversation, writing short texts with expression	K1, K2, K3				
CLO2	CLO2 Infer the cohesive devices to describe and discuss any objects, pictures using compound, complex sentence forms.					
CLO3	K2, K3					
CLO4	Understand the given material to organize it in a logical sequence to present a paragraph with main and supporting ideas with concluding sentences.					
CLO5	Present valuable ideas in conversation to emulate the main ideas and key points in short essays.	К3				
	K1 - Remember; K2 - Understand; K3 - Apply;					

## **Ability Enhancement Compulsory Course - II : Soft Skills**

Unit	Details	No. of Hours
I	Presentation Skills: Getting to Know You: Grammar: Introduction to Tenses; Listening: Fill in the blanks; Speaking: Self Introduction, Everyday English, Role-Play; Reading: Different ways of communication. My Day: Grammar: Present simple positive & negative / Adverbs of Frequency; Vocabulary & Speaking: Daily Activities; Listening: Observe and Answer / Telling the time; Reading & Writing: Describe where you live. Your World: Grammar: Possessive determiners; Vocabulary & Speaking: Talk about countries, nationalities; Listening: Positive & negative contractions; Reading & Writing: Personal profile. The World Of Work: Grammar: Yes/No & Wh Questions; Vocabulary & Speaking: Jobs; Listening: Recognize the schwa sound; Reading & Writing: Opening and closing an email. Places And Things: Grammar: There is / there are, articles; Vocabulary & Speaking: Talk about rooms & furniture; Listening: Directions; Reading & Writing: Imperatives.24 Hours: Grammar: Likes & Dislikes; Vocabulary & Speaking: Speak about hobbies and interests; Listening: Observe & answer; Reading: Match the photos with descriptions; Writing: Write complete sentence using prompts;	6
II	Confidence: Clothes and Shopping: Grammar: Modal verbs / Adverbs of Frequency / Adjectives and Adverbs; Vocabulary & Speaking: Shopping; Listening: Observe and Answer; Reading & Writing: Product Review. Travel & Transport: Grammar: Past simple questions; Vocabulary & Speaking: Talk about holidays; Listening: At the train station; Reading & Writing: Email - A perfect holiday. Health & Fitness: Grammar: Past simple irregular verbs; Vocabulary & Speaking: Talk about a healthy lifestyle; Listening: Listen & Answer; Reading & Writing: Time sequencers. Music: Grammar: Present perfect simple; Vocabulary & Speaking: Survey about music; Listening: Listen two people talk about music; Reading: Use adjectives and create sentences. Let's go shopping: Grammar: Countable & Uncountable; Vocabulary & Speaking: Town Survey; Listening: Listen and answer; Reading & Writing: Read and match	6
III	Creativity: Cooking & Eating: Grammar: Some & Any, Quantifiers; Vocabulary & Speaking: Food & Drink; Listening: Kitchen conversation; Reading & Writing: Article reading & answering. Survival: Grammar: Comparison of adjectives; Vocabulary & Speaking: Describing people; Listening: Listen & Answer; Reading & Writing: Read and Answer. Working Together: Grammar: Verb + Noun phrases; Vocabulary & Speaking: Talk about technology; Listening: Listen & Answer; Reading & Writing: Notice. Music: Grammar: Present perfect simple; Vocabulary & Speaking: Survey about music; Listening: Listen two people talk about music; Reading: Use adjectives and create sentences. Culture and Arts: Grammar: Present perfect; Vocabulary & Speaking: Speak on the phone; Listening: Listen and answer; Reading & Writing: Review.	6

Unit	Content	No. of Hours
IV	Problem-Solving: Do's and Don'ts: Grammar: Modal verbs; Vocabulary & Speaking: Role play; Listening: Holidays in January; Reading & Writing: Article reading & answering. Body: Grammar: First conditional; Vocabulary & Speaking: Personality & Appearance; Listening: Listen to conversations about personality; Reading & Writing: Read and Answer about your skills. Speed: Grammar: Present simple passive; Vocabulary & Speaking: Talk about relationships; Listening: Listen & Answer; Reading & Writing: Error spotting. Work: Grammar: Adverbs of manner; Vocabulary & Speaking: Talk about work advice; Listening: Observe & Answer; Reading: Read & check your ideas	6
V	Critical Thinking: Influence: Grammar: would / past habits; Listening: Sentence Correction; Speaking & Vocabulary: Your inspiration; Reading: Picture description; Writing: Rewrite the sentences. Money: Grammar: Second conditional; Listening: radio programme; Speaking & Vocabulary: Talk about games; Reading & Writing: Fill in the blanks. Things that changed the world: Grammar: articles; Speaking & Listening: Talk about chewing gum; Reading & Writing: Read and write a book review	6
	Total Hours	30

## Components for and Distribution of Marks for ESE (Theory)

## **Ability Enhancement Compulsory Course(AECC)**

Duration in Hrs.   Mode of Ex		Type of Questions	No. of Questions	Marks
2	Online	MCQ	50	50x1=50

