KG COLLEGE OF ARTS AND SCIENCE
Autonomous Institution | Affiliated to Bharathiar University
Accredited with A++ Grade by NAAC
ISO 9001:2015 Certified Institution
KGiSL Campus, Saravanampatti, Coimbatore – 641 035

Regulations 2025 - 26 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 2025-26 onwards)

Eligibility

The student should have passed Higher Secondary Examination. (As per the eligibility condition given Ref. BU/R/B3-B4/Eligibility Condition/7960/2025 dated 08/05/2025)

Program Learning Outcomes (PLOs)

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

PLO1	Provide specific knowledge and skills relevant to their disciplines and careers.
PLO2	Get acquainted with technical and practical concepts, solve real business problems using different programming languages.
PLO3	Improve accounting and computer skills required to develop lifelong learning through IT-enabled knowledge and practice with value-based add-ons and job-oriented courses that ensure their sustainability at the organization level.
PLO4	Demonstrate leadership traits, communication skills, and innovative thinking for optimal performance in personal, professional, societal, and environmental domains.
PLO5	Demonstrate high standards of ethical conduct in the computer applications in accounting and finance and become socially responsible citizens, contributing 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	Hours		Credits	Total		Semester
I	Language - I	4	4 X 4	16	4 X 3	12	12	1 - 4
II	Language - II	4	4 X 4	16	4 X 3	12	12	1 - 4
III	Core Theory **(6 Hours/Week)**	9	9 X 6	54	9 X 4	36	100	1 - 5
	Core Theory **(5 Hours/Week)**	2	2 X 5	10	2 X 4	8		5 - 6
	Core Theory **(4 Hours/Week)**	1	1 X 4	4	1 X 4	4		1
	Core Theory **(4 Hours/Week)**	2	2 X 4	8	2X 3	6		2,5
	Core Lab **(4 Hours/Week)**	3	3 X 4	12	3 X 2	6		2,4,5
	Core Lab **(4 Hours/Week)**	3	3 X 4	12	3 X 3	9		1,3,4
	Allied	4	4 X 4	16	4 X 3	12		1 - 4
	Electives	2	2 X 5	10	2 X 3	6		5, 6
	Core : Project Work	1	1 X 6	6	1 X 5	5		6
	SEC : Internship	1	-	-	1 X 2	2		5
	Skill Enhancement Courses(SEC)	3	3 X 2	6	3 X 2	6		3,4,6
IV	Foundation Course (FC)	2	2 X 2	4	2 X 2	4	14	1 - 2
	Foundation Course (FC)	1	-	-	1X2	2		3
	Ability Enhancement Compulsory Course (AECC)	3	3 X 2	6	3 X 2	6		1 - 4
	Ability Enhancement Compulsory Course (AECC) - MOOC	1	-	-	1 X 2	2		3
V	Liberal Arts (Extra-Curricular and Co-Curricular)	-	-	-	2	2	2	4
	Total	**46**		**180**		**140**	**140**	

Consolidated Semester wise and Component wise Hours and Credits Distribution

Semester	Part I		Part II		Part III		Part IV		Part V		Total	
	Hrs.	Credits	Hrs.	Credits	Hrs.	Credits	Hrs.	Credits	Hrs.	Credits	**Hrs.**	**Credits**
I	4	3	4	3	18	14	4	4	-	-	**30**	**24**
II	4	3	4	3	18	12	4	4	-	-	**30**	**22**
III	4	3	4	3	22	16	-	4	-	-	**30**	**26**
IV	4	3	4	3	20	14	2	2	-	2	**30**	**24**
V	-	-	-	-	30	22	-	-	-	-	**30**	**22**
VI	-	-	-	-	30	22	-	-	-	-	**30**	**22**
Total	**16**	**12**	**16**	**12**	**138**	**100**	**10**	**14**	**-**	**2**	**180**	**140**

B.Com.CA

Curriculum

Semester 1									
Course Code	**Part**	**Course Category**	**Course Name**	**Hours /Week**	**Examination**				**Credits**
					Duration in Hours	**Max Marks**			
						CIA	**ESE**	**Total**	
25TAM11L	I	Language - I	Tamil - I	4	3	25	75	100	3
25HIN11L	I		Hindi - I						
25MAL11L	I		Malayalam- I						
25FRE11L	I		French - I						
25ENG12L	II	Language - II	English - I	4	3	25	75	100	3
25BCC13C	III	Core - I	Financial Accounting - I	6	3	25	75	100	4
25BCC14C	III	Core - II	Programming with C++	4	3	25	75	100	4
25BCC15P	III	Core Lab -I	Advanced Excel & Financial Modeling Lab	4	3	40	60	100	3
25BCC16A	III	Allied - I	Principles of Management	4	3	25	75	100	3
25ENV1FC	IV	FC - I	Environmental Studies	2	2	50	-	50	2
25SOF1AE	IV	AECC - I	Soft Skills	2	2	-	50	50	2
			Total	**30**				**700**	**24**

Semester 2									
Course Code	**Part**	**Course Category**	**Course Name**	**Hours/ Week**	**Examination**				**Credits**
					Duration in Hours	**Max Marks**			
						CIA	**ESE**	**Total**	
25TAM21L	I	Language - I	Tamil- II	4	3	25	75	100	3
25HIN21L	I		Hindi- II						
25MAL21L	I		Malayalam- II						
25FRE21L	I		French- II						
25ENG22L	II	Language - II	English- II	4	3	25	75	100	3
25BCC23C	III	Core - III	Financial Accounting- II	6	3	25	75	100	4
25BCC24P	III	Core Lab - II	Programming with C++ Lab	4	3	40	60	100	2
25BCC25P	III	Core Lab - III	Fintech & Digital Finance Innovation Lab	4	3	40	60	100	3
25BCC26A	III	Allied - II	Business Law	4	3	25	75	100	3
25HUM2FC/	IV	FC - II	Human Rights/	2	2	50	-	50	2
25DIM2FC			Disaster Management						
25IDT2AE	IV	AECC - II	Innovation & Design Thinking/	2	2	-	50	50	2
25IPR2AE			Intellectual Property Rights /						
25END2AE			Entrepreneurship Development						
			Total	**30**				**700**	**22**

Semester - 3

Course Code	Part	Course Category	Course Name	Hours/ Week	Examination				Credits
					Duration in Hours	Max Marks			
						CIA	ESE	Total	
25TAM31L	I	Language - I	Tamil- III	4	3	25	75	100	3
25HIN31L	I		Hindi- III						
25MAL31L	I		Malayalam- III						
25FRE31L	I		French - III						
25ENG32L	II	Language - II	English - III	4	3	25	75	100	3
25BCC33C	III	Core - V	Corporate Accounting - I	6	3	25	75	100	4
25BCC34C	III	Core - VI	Company Law and Secretarial Practice	6	3	25	75	100	4
25BCC35P	III	Core Lab- III	Data Analytics for Finance Lab	4	3	40	60	100	3
25BCC36A	III	Allied - III	Python Programming	4	3	25	75	100	3
25BCC37P	III	SEC Lab - I	Python Programming Lab	2	3	40	60	100	2
25BAT3FC	IV	FC - II	Basic Tamil /	-	2	-	50	50	2
25BAT3FC			Advanced Tamil/						
25IKS3FC			Indian Knowledge Systems (IKS)*						
25MOO3AE	IV	AECC - III	Online Course - MOOC	-	-	50	-	50	2
Total				**30**				**800**	**26**

Semester - 4									
Course Code	**Part**	**Course Category**	**Course Name**	**Hours /Week**	**Examination**				**Credits**
					Duration in Hours	**Max Marks**			
						CIA	**ESE**	**Total**	
25TAM41L	I	Language - I	Tamil - IV	4	3	25	75	100	3
25HIN41L	I		Hindi - IV						
25MAL41L	I		Malayalam - IV						
25FRE41L	I		French - IV						
25ENG42L	II	Language - II	English - IV	4	3	25	75	100	3
25BCC43C	III	Core - VII	Corporate Accounting - II	6	3	25	75	100	4
25BCC44P	III	Core Lab - IV	Database Management System Lab	4	3	40	60	100	2
25BCC45P	III	Core Lab - V	Advanced Applications of Data Analytics in Fintech Lab	4	3	40	60	100	3
25BCC46A	III	Allied - IV	Business Mathematics and Statistics	4	3	25	75	100	3
25BCC47P	III	SEC Lab - II	Computer Applications: GST with Tally - I Lab	2	3	40	60	100	2
25QUA4AE	IV	AECC - IV	Quantitative Aptitude	2	2	-	50	50	2
25EXC4LA	IV	Extra-Curricular and Co-Curricular	Liberal Arts	-	-	50	-	50	2
			Total	**30**				**800**	**24**

Semester - 5									
Course Code	**Part**	**Course Category**	**Course Name**	**Hours/ Week**	**Examination**				**Credits**
					Duration in hrs.	**Max Marks**			
						CIA	**ESE**	**Total**	
	III	Core - VIII	Cost Accounting	6	3	25	75	100	4
	III	Core - IX	Banking Theory Law and Practice	5	3	25	75	100	4
	III	Core - X	Income Tax Law and Practice	6	3	25	75	100	4
	III	Core - XI	Executive Business Communication	4	3	25	75	100	3
	III	Core Lab - VI	Computer Applications Practical: MS Word,MS Excel and Tally9.2-II Lab	4	3	40	60	100	2
	III	Elective - I	Information Systems in Business **(Information Technology and Business Management)**	5	3	25	75	100	3
			Fundamentals of Computer Networks **(Networks)**						
			Web Design **(Web Development)**						
	III	SEC-III	Internship	-	2	50	-	50	2
			Total	**30**				**650**	**22**

Semester - 6									
Course Code	**Part**	**Course Category**	**Course Name**	**Hours/ Week**	**Examination**				**Credits**
					Duration in hrs.	**Max Marks**			
						CIA	**ESE**	**Total**	
	III	Core - XII	Management Accounting	5	3	25	75	100	4
	III	Core - XIII	Principles of Auditing	6	3	25	75	100	4
	III	Core - XIV	Indirect Taxes	6	3	25	75	100	4
	III	Elective- II	E-Commerce Technology **(Information Technology and Business Management)**	5	3	25	75	100	3
			Cloud Computing **(Networks)**						
			PHP Programming **(Web Development)**						
	III	SEC Lab - III	AI based HTML Lab	2	3	40	60	100	2
	IV	Core	Project Work	6	4	40	60	100	5
Total				**30**				**600**	**22**
Grand Total				**180**				**4250**	**140**

Semester 1

Semester 1

Course Code	Part	Course Category	Course Name	Hrs./ Week	Examination				Credits
					Duration in hrs.	Max Marks			
						CIA	ESE	Total	
25TAM11L	I	Language - I	Tamil - I	4	3	25	75	100	3
25HIN11L	I		Hindi - I						
25MAL11L	I		Malayalam- I						
25FRE11L	I		French - I						
25ENG12L	II	Language - II	English - I	4	3	25	75	100	3
25BCC13C	III	Core - I	Financial Accounting - I	6	3	25	75	100	4
25BCC14C	III	Core - II	Programming with C++	4	3	25	75	100	4
25BCC15P	III	Core Lab - I	Advanced Excel & Financial Modeling Lab	4	3	40	60	100	3
25BCC16A	III	Allied - I	Principles of Management	4	3	25	75	100	3
25ENV1FC	IV	FC - I	Environmental Studies	2	2	50	-	50	2
25SOF1AE	IV	AECC - I	Soft Skills	2	2	-	50	50	2
			Total	**30**				**700**	**24**

Part - I: Language I -Tamil I

Course Code	Course Name	Category	Hours / Week	Credits
25TAM11L	Tamil - I	Language - I	4	3

Course Objectives

The course intends to cover

- இலக்கிய வளர்ச்சியை அறிந்து கொள்ளுதல்
- இலக்கியம் படைக்கும் திறன்
- இலக்கிய இலக்கண உரைசெய்தல்
- திறனாய்வு முறையினைக் கற்றுத்தேர்தல்

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	புதுக்கவிதையின் மூலம் வாழ்வியல் விழுமியங்களை உணர்ந்து கொள்ளுதல்.	K1, K2
CLO2	சிறந்த மற்றும் வாழும் கவிஞர்களை அறிந்து கொள்ளுதல்.	K2, K3
CLO3	சிறந்த படைப்பாளர்களின் சிறுகதையில் வெளிப்படும் சமூகச் சிந்தனைகளை அறிந்து விழிப்புணர்வைப் பெறுதல்.	K3
CLO4	தற்கால இலக்கியங்களான புதுக்கவிதை, சிறுகதை தோன்றி வளர்ந்த பின்புலத்தை அறிதல்.	K1, K3
CLO5	மொழியைப் பிழையின்றி பேச எழுத கற்கத் தேவையானதமிழ் இலக்கணத்தின் இன்றியமையாமையை உணர்தல். நடைமுறை வாழ்வியலுக்குத் தேவைப்படும் ஆங்கிலக் கடிதத்தைத் தமிழாக்கம் செய்தலுக்கான பயிற்சி அடைதல்.	K2, K3
K1 - Remember; **K2** - Understand; **K3** - Apply		

Part - I: Language I - Tamil - I

Unit	Content	No. of Hours
I	**நாட்டுப்பற்று** 1. உலகத்தைநோக்கிவினவுதல் - பாரதியார் 2. பாரதிதாசன்கவிதைகள் - பாரதிதாசன் • தமிழ்ப்பேறு 3. ஒற்றுமையேஉயிர்நிலை - நாமக்கல்கவிஞர் 4. தேவதேவன்கவிதைகள் - தேவதேவன் • சாலையும்மரங்களும்செருப்பும் • புதியவீடு 5. ஆலாபனை - கவிக்கோஅப்துல்ரகுமான் • போட்டி • பாதை 6. புத்தகச்சந்தை - கவிஞர்வாலி	14
II	**சமூகம்** 1. எட்டாவதுசீர் - ஈரோடு தமிழன்பன் 2. தொலைந்துபோனேன் - கவிஞர்தாமரை 3. திருநங்கைகள் காகிதப் பூக்கள் - நா. காமராசன் 4. மரங்களைப் பாடுவேன் - வைரமுத்து 5. புள்ளிப் பூக்கள் (ஹைக்கூ) - அமுத பாரதி 6. நாட்டுப்புறப் பாடல்கள் (தாலாட்டுப் பாடல் , தெம்மாங்குப் பாடல், உழவுத்தொழில்)	14
III	**சிறுகதை** 1. காஞ்சனை - புதுமைப்பித்தன் 2. சுமைதாங்கி - ஜெயகாந்தன் 3. சோற்றுக் கணக்கு - ஜெயமோகன் 4. ஆறு யானைகள் - எஸ்.ராமகிருஷ்ணன் 5. மரத்தைக்கர்ப்பம்சுமந்தவள் - ஆண்டாள்பிரியதர்சினி	12
IV	**இலக்கியவரலாறு** 1. மரபுக்கவிதையின்தோற்றமும்வளர்ச்சியும் 2. புதுக்கவிதையின்தோற்றமும்வளர்ச்சியும் 3. ஹைக்கூகவிதையின்தோற்றமும்வளர்ச்சியும் 4. சிறுகதையின்தோற்றமும்வளர்ச்சியும்	10
V	**இலக்கணம்** 1. எழுத்துகள் (முதல்எழுத்துகள், சார்பெழுத்துகள்) 2. எழுத்துக்களின்பிறப்பு 3. மாத்திரைகள்	10

	4. பயிற்சிக்குரியன - மொழிபெயர்ப்பு (ஆங்கிலத்திலிருந்துதமிழுக்குமொழிபெயர்த்தல்)	
	Total Hours	**60**

Reference Books

1	பேரா. குருசாமி, ம.ரா.போ. (2014), பாரதிபாடல்கள், ஆய்வுப்பாதிப்பு, தமிழ்ப்பல்கலைக்கழகம், தஞ்சாவூர்.
2	அப்துல்ரகுமான்,(2000), ஆலாபனை, கவிக்கோபதிப்பகம்
3	தாமரைகவிதைகள், (2012), நியூசெஞ்சுரிபுக்ஹவுஸ்
4	வரதராசனார் மு, (2021), தமிழ் இலக்கிய வரலாறு, சாகித்ய அகாடமி பதிப்பு.
5	முனைவர் பஞ்சாங்கம் கா, (2017), தமிழ் இலக்கிய வரலாறு, காவ்யா பதிப்பகம்.
6	முனைவர் வேங்கடராமன் கா. கோ (2008), தமிழ் இலக்கிய வரலாறு, கலையக வெளியீடு.
7	பரந்தாமனார் அ.கி. (2002), நல்ல தமிழ் எழுத வேண்டுமா?,அல்லி நிலையம்.
8	ராமகிருஷ்ணன் எஸ் (2006), 100 சிறந்த சிறுகதைகள் (தொகுதி 1 & 2) பதிப்பகம்: தேசாந்திரி பதிப்பகம்
9	குமரன்கோ (2010), தமிழ்இலக்கணம்எளியஅறிமுகம் , சந்தியாபதிப்பகம்
10	சக்திவேல்சு,(2012), நாட்டுப்புறவியல், மணிவாசகர்பதிப்பகம்

Course Code	Course Name	Category	Hours/Week	Credits
25HIN11L	**Hindi - I**	**Language-I**	**4**	**3**

Course Objectives

The course intends to

- Improve grammatical knowledge.
- Read and learn about articles and think about them.
- Read and understand short stories and understand the thoughts and life of the people of this state.
- Have Translation knowledge and the ability to read and analyze a message are also available.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the text styles and grammatical elements	K1,K2
CLO2	Discuss the content of a reading passage	K2,K3
CLO3	Develop an interest in the appreciation of short stories	K3
CLO4	Comprehend the grammatical structures and sentence making	K1,K3
CLO5	Understand the language and developing English to Hindi translation skill	K2,K3
K1-Remember; **K2** -Understand; **K3** -Apply		

Part - I: Language I - Hindi-I

Unit	Content	Hours
I	**Prose: Nuthan Gadya Sangrah** Lesson 1 - Bharathiya Sanskurthi - Dr.Rajendra Prasad Lesson 3 - Razia - RamavikshaBenipuri Lesson 4 - Makreal - Yespal Lesson 5 - Bahtha Pani Nirmala - 'Ageya' Lesson 6 - Rashtrapitha Mahathma Gandhi - Mukthibodh Lesson 9 - Ninda Ras - Harishankar Parsayi.	14
II	**Non Detailed Text Short Stories: Kahani Kunj** Pareksha - Premchand Mamtha - Jayashankar Prasad Apnaparaya - Jaynendrakumar Admikabachcha - Yespal Bolaramkajeev - Harishankar Parsayi Vapasi - MannuBhandari	14
III	**Grammar: Shabdha Vichar Only** (Noun, Pronoun, Adjective, Verb, Tense, Case, Endings) Theoretical & Applied.	12
IV	**Translation: English -Hindi Only.** Anuvadh Abhyas - III (1 - 15 Lessons Only)	10
V	**Comprehension**: 1 Passage From Anuvadh Abhyas - III (16 - 30)	10
	Total Hours	**60**

Text Books	
1	Jayaprakash, (2009), Nuthan Gadya Sangrah, Publisher: Sumitra Prakashan Sumitravas, 16/4, Hastings Road, Allahabad - 211001.
2	Amithab.V.P.(2011), Kahani Kunj, Publisher: Govind Prakashan Sadhar Bagaar,Mathura, UttarPradesh,-281 001

Course Code	Course Name	Category	Hours/Week	Credits
25MAL11L	Malayalam-I	Language-I	4	3

Course Objectives

The course intends to

- Improve grammatical knowledge
- Read and learn about articles and think about them
- Read and understand short stories and understand the thoughts and life of the people of this state
- Have Translation knowledge and the ability to read and analyze a message are also available
- Have Translation knowledge and the ability to read and analyze a message are also

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the text styles and grammatical elements	K1
CLO2	Discuss the content of a reading passage	K1
CLO3	Develop an interest in the appreciation of short stories	K2
CLO4	Comprehend the grammatical structures and sentence making	K3
CLO5	Understand the language and developing English to Malayalam translation skill	K4
K1-Remember; **K2**-Understand; **K3** -Apply;**K4**-Analyse		

Part - I: Language I - Malayalam - I

Unit	Content	Hours
I	Novel - Pathummayude Aadu-Vaikam Muhammed Basheer	14
II	Novel - Pathummayude Aadu-Vaikam Muhammed Basheer	14
III	Short Story - Ente Priyappeta Kadhakal - Akbar Kakkattil)	12
IV	Short Story - Ente Priyappeta Kadhakal - Akbar Kakkattil)	10
V	Composition & Translation (English to Malayalam)	10
	Total Hours	**60**

Text Books	
1	Vaikam Muhammed Basheer, (2012), Novel - Pathummayude Aadu, D.C. Books, Kottayam, Kerala
2	Akbar Kakkattil, (2009), Short Story - Ente Priyappeta Kadhakal
Reference Books	
1	Tharakan K.M, (2016), Malayala Novel Sahithya Charitram, N.B.S.Kottayam.
2	Achuyuthan M, (2014), Cherukatha Innale Innu - M.Achuyuthan D.C Books,Kottayam.
3	Dr.George K.M, (2011) Sahithya Charitram Prasthanangalilude, D.C.Books Kottayam.
4	Sukumar Azheekode, (2015), Malayala Sahithyavimarsam, D.C.Books

Part-I: Language - I French - I

Course Code	Course Name	Category	Hours/ Week	Credits
25FRE11L	French - I	Language -I	4	3

Course Objective

The course intends

To understand, speak, read and write simple, standard speech which is very slow and is carefully articulated and can recognize familiar words and very basic phrases concerning themselves, their family and immediate concrete surroundings when people speak slowly and clearly.

Course Learning Outcomes

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

CLO	Course Outcome	Knowledge Level
CLO1	Comprehend basic vocabulary	K1
CLO2	Understand basic syntax and grammar patterns	K2
CLO3	Converse slowly in known situations	K2
CLO4	Translate small basic sentences	K3
K1-Remember; **K2**-Understand; **K3** -Apply		

Part-I: Language-I-French-I

Unit	Content	No. of Hours
I	Etape0	14
	Etape1(Lecons1- 3)	
II	Etape2(Lecons1- 3)	14
III	Etape3 -Leçons1-2	12
IV	Etape3-Leçon3	10
	Etape4-Leçon1	
V	Etape4 -Leçons2-3	10
	Total Hours	**60**

Text Book	
1	Céline Himber,Corina Brillant, Sophie Erlich, (2008), Adomania1-Methodede francais, Publisher-Hachette Fle
Reference Book	
1	Yves Loiseau, Régine, (2014), Latitudes1, Merieux Publisher: French and European Publications Inc.

Part-II: Language-II-English-I

Course Code	Course Name	Category	Hours/Week	Credits
25ENG12L	English - I	Language - 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

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

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.	K3
CLO4	Employ vocabulary and grammatical proficiency in communication to enhance clarity in workplace interactions.	K3
CLO5	Enhance overall communication competence. Practicing these skills. In combination reinforces learning and provides students with opportunities to use the language in authentic contexts.	K3
K1 - Remember; **K2** - Understand; **K3** - Apply		

Part-II: Language-II-English-I

Unit	Content	No. of Hours
I	**Poetry**: Nature 1. I Wandered Lonelyasa 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 - Guyde Maupassant 2. The Lottery - Shirley Jackson 3. The Monkey's Paw - W.W.Jacobs	12
IV	**Language Competency** 1. Vocabulary: Synonyms, Antonyms,Word Formation 2. Parts of Speech 3. Error correction	12
V	**English for Communication** 1. Listening for General and Specific Information. 2. Self-Introduction, Introducing others, Greetings. 3. Reading a prose passage, Reading a poem and Reading a short story 4. Descriptive writing - Writing a short descriptive essay of two to three paragraphs.	12
	Total Hours	**60**

Text 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 & McMillan.
Reference Books	
1.	Kumar,V.T. Bhavani, Durga.K. Srinivas.YL.(2018). English in Use -A text book for College Students. (English, Paperback).
2.	Swan,M.(2005).Practical English usage (Vol.7). Oxford: Oxford university press.
Web Resources (Swayam/NPTEL)	
1.	https://nptel.ac.in/courses/109105205

Course Code	Course Name	Category	Hours/Week	Credits

25BCC13C	**Financial Accounting - I**	**Core - I**	**6**	**4**

Course Objectives

This course intends to cover

- Learn basic Principles of Accountancy.
- Preparation and presentation of the final accounts of a sole trader.
- Accounting treatment of bills of exchange and accounting for professionals.
- Various methods of calculating profit under a single-entry system.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Remember Accounting Concepts and Conventions and applying rules to record business transactions	K1
CLO2	Construct the final accounts of a sole trader and identify errors.	K3
CLO3	Familiarize the concepts of bills of exchange, average due date, and account current.	K2
CLO4	Analyze the bank reconciliation statement and prepare necessary records for Non - Profit organization.	K4
CLO5	Interpret financial statements from incomplete records.	K2
K1- Remember; **K2**- Understand; **K3**- Apply; **K4** - Analyze		

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 (medium)		**1**-Slight (low)	

Core - I: Financial Accounting - I

Unit	Content	No. of Hours
I	**Fundamentals of Book Keeping:** Introduction - Book Keeping - Accounting - Definition - Accounting Concepts and Conventions - Accounting Terms - Double Entry System - Accounting Equation - Journal - Ledger - Subsidiary books - Trial balance.	18
II	**Final accounts of a Sole trader:** Concept - Trading Account, Profit and Loss Account and Balance Sheet - Adjustments: Closing stock - Outstanding Expenses - Accrued Income - Income Received in Advance- Bad debts - Bad debts provisions - Depreciation **Rectification of Errors**: Meaning - Types of Errors.	18
III	**Bills of Exchange:** Definition - Specimens - Discounting of Bills - Endorsement of Bill - Collection - Noting - Renewal - Retirement of Bill under rebate - Insolvency of Acceptor - Accommodation Bills. **Average Due Date and Account Current:** Meaning - Methods.	18
IV	**Bank Reconciliation Statement:** Meaning, Objectives, Advantages and disadvantages- Preparation of BRS. **Non-Profit Organization:** Receipts and Payments, Income and Expenditure account and Balance sheet.	18
V	**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 - Conversion method.	18
	Total Hours	**90**
Problem 80% & Theory 20%		
Text Books		
1.	Jain.S.P., and Narang.K.L., (2022), Advanced Accountancy (21st ed), Kalyani Publishers.	
2.	Reddy and Murthy.A, (2015), Financial Accounting (7th, ed.), Margham Publications.	
3.	Radhaswamy L and Gupta.R.L., (2015), Advanced Accounting (Vol: II), Sultan Chand & Sons Publications.	
Reference Books		
1.	Dr. Tulsian P C &Tushar Tulsian, et al, (2023), Advanced Accounting (3rd), Sultan Chand & Sons Publications.	
2.	Charumathi B and Vinayagam N, (2004), Financial Accounting, Sultan Chand & Sons Publications.	
3.	Maheshwari.S.N., (2010), Financial and Management Accounting, Vikas Publications.	
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	

Course Code	Course Name	Category	Hours/Week	Credits
25BCC14C	**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	K3
CLO4	Analyzing different types of inheritance system	K4
CLO5	Understanding working about files and exception handling	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze		

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	**Introduction to C++:** 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	12
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 - Pointer Virtual 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 Detection - File Pointers - Updating a File - Error Handling during File Operations - Command-line Arguments.	12
	Total Hours	**60**
Text Books		
1	Balagurusamy. E., (1995) Object Oriented Programming with C++, Tata McGraw- Hill, Publishing Company Ltd	
2	Ulla Kirh-Prinz, Peter Prinz, (2002), A Complete guide to Programming in C++, Jones and Bartlett Publications,	
3	BjarneStroustrap, (2000), The C++ Programming, Pearson Education,	
4	Herbert Schilt., (1999), C++ -The Complete Reference:, (3rd,ed.), Tata McGraw Hill, Pub-Ltd,	
5	John R.Hubbard., Schaum's., (1996), Programming with C++ - outline series.	
Reference Books		
1	Robert Lafore, Object Oriented Programming in Microsoft C++, Galgotia publication	
2	Schildt.H, (1998), C++, The Complete Reference. TMH Edition.	
3	Yeswant Kanetkar, (1999), Let us C++ -- BPB Publications,	
Web Resources (Swayam / NPTEL)		
1	https://onlinecourses.nptel.ac.in/noc24_cs30/preview	
2	https://onlinecourses.swayam2.ac.in/nou24_cs06/preview	
3	https://onlinecourses.nptel.ac.in/noc24_cs02/preview	
4	https://onlinecourses.nptel.ac.in/noc24_cs44/	
5	https://onlinecourses.swayam2.ac.in/aic20_sp01/preview	

Course Code	Course Name	Category	Hours/Week	Credits
25BCC15P	Advanced Excel and Financial Modelling Lab	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	K3
CLO2	Understand and apply basic finance concepts and terminology in the context of financial analysis and modelling	K1 - K2
CLO3	Build basic financial models in Excel, incorporating assumptions, inputs, and forecasting techniques	K3
CLO4	Use Generative AI tools in Excel to automate tasks, gain insights, and enhance productivity	K3
CLO5	Analyze and interpret financial data, perform sensitivity analysis, and make data-driven decisions using Excel	K4
K1- Remember; **K2**- Understand; **K3**- Apply; **K4** - 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** - Moderate (medium)		**1** - Slight (low)	

Core Lab - I: Advanced Excel and Financial Modelling Lab

Unit	Content	No of Hours
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	13
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.	15
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.	12
IV	**Excel for Financial Analysis**: Financial Functions (PV, FV, NPV, IRR) - Loan and Investment Calculations - Depreciation Schedules - Sensitivity Analysis (Goal Seek, Data Tables)	10
V	**Basic Financial Modelling**: Purpose and Structure of Financial Models - Building a Basic Financial Model in Excel - Assumptions and Inputs - Forecasting Techniques - Scenario Analysis and Sensitivity Testing.	10
	Total Hours	**60**

Text Books

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.

Reference 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 to Applied Corporate Finance (3rd, ed.), FT Press.

Web Resources (Swayam/NPTEL)

1.	https://onlinecourses.nptel.ac.in/noc22_mg35/preview

S.No	List of 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. Append queries to stack data from multiple tables or files.

S.No	List of Programs	
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. Perform scenario analysis and sensitivity testing. Include exercises on creating dynamic models with linked inputs and automated summary reports.	
	Total Hours	**60**

Course Code	Course Name	Category	Hours/Week	Credits
25BCC16A	**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	Examine the importance of planning and decision making in an organization.	K3
CLO3	Comprehend the concept of various authorities and responsibilities of an organization.	K2
CLO4	Understand the process of employee recruitment and tabulate performance appraisals.	K2
CLO5	Apply the knowledge of leading and controlling an Organization.	K3
K1- Remember; **K2**- Understand; **K3**- Apply		

CLO - PLO Mapping

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 (medium)		**1**-Slight (low)	

Allied - I: Principles of Management

Unit	Content	No. of Hours
I	**Introduction to Management:** Meaning- Definitions - Nature and Scope Levels of Management -Importance- Functions of Management Vs Administration - Management is Science or Art - Managerial Roles. **Evolution of Management Thoughts:** F. W. Taylor, Henry Fayol, Peter F. Drucker, Elton Mayo.	12
II	**Planning:** Meaning - Definitions - Nature - Scope and Functions - Importance and Elements - Types - Planning Process - Tools and Techniques. **Management by Objective (MBO). Decision Making:** Meaning - Characteristics - Types - Steps - Forecasting.	12
III	**Organizing:** Meaning - Definitions - Nature and Scope - Characteristics - Importance - Types - Formal and Informal Organization - Organization Chart. **Organization Structure:** Meaning and Types - Departmentalization - Delegation of Authority - Centralization and Decentralization - Span of Management.	12
IV	**Staffing:** Meaning - Nature and importance - Process - Manpower Planning **Recruitment**: Sources of Recruitment - Selection Process - Interview and it types. **Training**: Need - Types - Performance Appraisal - Meaning and Methods - Promotion and Transfer.	12
V	**Directing and Controlling:** Meaning, Importance and Theories - Communication - Types - Barriers to Communications. **Leadership:** Nature - Styles of Leadership - Qualities of a Good Leader. **Co-ordination:** Meaning - Techniques of Co- ordination. **Controlling:** Characteristics, Importance, Control Process, Requisites of Effective Control and Controlling Techniques.	12
	Total Hours	**60**

Text Books

1.	Gupta.C.B., (2013), Business Management, (2nd ed.), Sultan Chand & Sons Publications.
2.	Dinkar Pagare. (2018), Principles of Management, (2nd ed.), Sultan Chand & Sons Publications.
3.	Tripathi.P.C.,Reddy.P.N., AshishBajpai, Mark V Cannice, (2022), Principles of Management, (11th ed.), Tata McGraw Hill, Noida.
4.	Prasad.L.M., (2019), Principles of Management, (7th,ed.), S.Chand& Sons Co. Ltd., NewDelhi,

Reference Books	
1.	Harold Koontz., Heinz Weihrich.,(2020), Essentials of Management, (11th ,ed.) , McGraw Hill, Noida.
2.	Ramasamy.T, (2010), Principles of Management, Himalaya Publishing House.
3.	Balaji.C.D, (2019), Principles of Management, MarghamPublications.
Web Resources(Swayam/NPTEL)	
1.	https://onlinecourses.swayam2.ac.in/aic22_ge19/preview
2.	https://onlinecourses.nptel.ac.in/noc21_mg88/preview
3.	https://onlinecourses.nptel.ac.in/noc22_mg42/preview

Course Code	Course Name	Category	Hours / Week	Credits
25ENV1FC	Environmental Studies	FC- I	2	2

Unit	Content
I	The Multidisciplinary nature of environmental studies Definition; Scope and importance, Need for public awareness.
II	**Natural Resources:** Renewable and non-renewable resources: Natural resources and associated problems. - Forest resources: Use and Over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people. - Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams benefits and problems. - Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. - Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. - Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, Case studies. - Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification. Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles.
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).
IV	**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 option values. - 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.

Unit	Content
V	**Environmental Pollution Definition** - Causes, effects and control measures of: - a. Air pollution b. Water pollution c. Soil pollution d. Marine pollution 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. - Disaster management: floods, earthquake, cyclone and landslides.
VI	**Social Issues and the Environment** - From Unsustainable to Sustainable development. - Urban problems related to energy. - Water conservation, rain water harvesting, watershed management. - 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. - Wasteland reclamation. - Consumerism and waste products. - Environment Protection Act. - Air (Prevention and Control of Pollution) Act. - Water (Prevention and Control of Pollution) Act. - Wildlife Protection Act. - Forest Conservation Act. - Issues involved in enforcement of environmental legislation. - Public awareness.

Unit	Content
VII	**Human Population and the Environment** - Population growth, variation among nations. - Population explosion-Family welfare Programme. - Environment and human health. - Human Rights. - Value Education. - HIV/AIDS. - Women and Child Welfare. - Role of information Technology in Environment and human health. - Case Studies. **Biosafety and Biosecurity** The basic principles of biosafety. - Biological hazards and assess risk in laboratory settings. - Biosafety protocols to minimize risks associated with biological agents. - Role of biosafety in the protection of public health, environment, and nationalsecurity. The theoretical knowledge as well as practical applications to prepare learners for real-world biosafety challenges. 1. Introduction to Biosafety - Definition and importance of biosafety. - Historical perspective on biosafety incidents. - Biosafety vs. biosecurity: Key differences. 2. Biological Hazards and Risk Assessment. - Risk assessment methodology: Identifying hazards, evaluating risks, and control measures. 3. Biological Waste Management - Types of biological waste: Solid, liquid, sharps, etc. - Waste disposal techniques: Autoclaving, incineration, chemical disinfection. - Environmental impact and regulations surrounding waste management. 4. Standard Operating Procedures (SOPs) and Safety Practices - Developing and implementing SOPs for laboratory safety. - Practices for handling, storing, and disposing of biological materials.
VIII	**Field Work (Practical).** - Visit to a local area to document environmental assets-river/forest/grassland/ hill/mountain. - 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
2.	Biosafety in Microbiological and Biomedical Laboratories (CDC, NIH). (BMBL) 6th Edition
3.	Sateesh, M. K. (2010). Bioethics and Biosafety. New Delhi: I. K. International Pvt Ltd.
4.	Additional Readings:Relevant journal articles, government publications, and guidelines (e.g., WHO, CDC, European Union, etc.). https://www.iberdrola.com/innovation/what-is-biosafety

Course Code	Course Name	Category	Hours / Week	Credits
25SOF1AE	Soft Skills	AECC - I	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	Knowledge Level
CLO1	Understand the comprehensive skills to participate actively in conversation, writing short texts with expression	K1, K2, K3
CLO2	Infer the cohesive devices to describe and discuss any objects, pictures using compound, complex sentence forms.	K2, K3
CLO3	Comprehend the logic in the given situation to organize the ideas to write formal and informal letters.	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.	K3
CLO5	Present valuable ideas in conversation to emulate the main ideas and key points in short essays.	K3
K1 - Remember; **K2** - Understand; **K3** - Apply;		

Ability Enhancement Compulsory Course - I: Soft Skills

Unit	Module	Details	No. of Hours
I		**Presentation Skills**	
	1	**Getting to Know You:** Grammar: Introduction to Tenses, Everyday English, Role-Play. Reading Activity: Different ways of communication. *Activities*: Fill in the blanks (Listening), Self Introduction (Speaking).	6
	2	**My Day:** Grammar: Present simple positive & negative/Adverbs of Frequency, Vocabulary & Speaking about Daily Activities. Listening: Observe and Answer/ Telling the time. *Activities:* Reading & Writing: Describe where you live.	
	3	**Your World:** Grammar: Possessive determiners. Listening: Positive & negative contractions. Reading & Writing: Personal profile. *Activities:* Talk about countries, nationalities (Vocabulary & Speaking).	
	4	**The World of Work:** Grammar: Yes/No & Wh Questions. Vocabulary & Speaking: Jobs. Listening: Recognize the schwa sound. *Activities:* Opening and closing an email (Reading & Writing).	
	5	**Places and Things:** Grammar: There is / there are, articles. Vocabulary & Speaking: Talk about rooms & furniture. Listening: Directions. Reading & Writing: Imperatives.	
	6	**24 Hours:** Grammar: Likes & Dislikes. Vocabulary & Speaking: Speak about hobbies and interests. Reading: Match the photos with descriptions. Writing: Write complete sentence using prompt. *Activities:* Observe & answer *(*Listening).	
		Practice: Listening & Speaking Presentations - Talking about how you learn - Understanding key information in a presentation - Writing sentences about you.	
II		**Confidence**	
	1	**Clothes and Shopping:** Grammar: Modal verbs/Adverbs of Frequency/Adjectives and Adverbs. Vocabulary & Speaking: Shopping. Reading & Writing: Product Review. *Activities:* Observe & answer *(*Listening).	6
	2	**Travel & Transport:** Grammar: Past simple questions. Vocabulary & Speaking: Talk about holidays. Listening: At the train station. *Activities:* Email - A perfect holiday (Reading & Writing).	
	3	**Health & Fitness:** Grammar: Past simple irregular verbs; Listening: Listen & Answer; Reading & Writing: Time sequencers; *Activities:* Talk about a healthy lifestyle (Vocabulary & Speaking)	
	4	**Music:** Grammar: Present perfect simple; Vocabulary & Speaking: Survey about music; Listening: Listen two people talk about music; *Activities:* Use adjectives and create sentences (Reading)	
	5	**Let's go shopping:** Vocabulary & Speaking: Town Survey; Listening: Listen and answer; Reading & Writing: Read and match; Activities: Countable & Uncountable **(**Grammar)	
		Practice: Writing a personal statement.	

III	**Creativity**		
	1	**Cooking & Eating:** Grammar: Some & Any, Quantifiers. Vocabulary & Speaking about Food & Drink. *Activities* Kitchen conversation (Listening). Reading an article & answering.	6
	2	**Survival:** Grammar: Comparison of adjectives. *Activities* Describing people (Speaking and Vocabulary). Listening to an audio & Answering. Reading & Writing: Read and Answer.	
	3	**Working Together:** Grammar: Verb + Noun phrases. *Activities* Technology (Vocabulary & Speaking). Listening: Listen & Answer. Reading & Writing: Notice.	
	4	**Music:** Grammar: Present perfect simple. *Activities* Survey about music (Vocabulary & Speaking). Listen to two people talking about music (Listening). Reading: Use adjectives and create sentences.	
	5	**Culture and Arts:** Grammar: Present perfect.Vocabulary & Speaking activity: Speak on the phone. *Activities:* Listen and answer. Reading & Writing activity: Review.	
		Practice: Writing comparison sentences & paragraphs.	
IV	**Problem-Solving**		
	1	**Do's and Don'ts:** Grammar, Modal Verbs. *Activities* Roleplay (Speaking). Holidays in January (Listening). Reading an article & answering.	6
	2	**Body:** Grammar: First conditional. Vocabulary & Speaking about Personality & Appearance. *Activities* Conversations about personality (Listening), Reading & Writing: Read and Answer about your skills.	
	3	**Speed:** Grammar: Present simple passive. Vocabulary & Speaking about relationships. Listening: Listen & Answer. Reading and Error spotting.	
	4	**Work:** Grammar: Adverbs of manner. Vocabulary & Speaking about work advice. Listening: Observe & Answer; Reading: Read & check your ideas.	
		Practice: Writing argumentative and descriptive essays.	
V	**Critical Thinking**		
	1	**Influence:** Grammar: would / past habits. Listening: Sentence Correction. *Activities* Your inspiration (Speaking). Picture description (Reading).Rewrite the sentences (Writing).	6
	2	**Money:** Grammar: Second conditional. *Activities:* Radio programme (Listening). Talk about games (Speaking). Reading & Writing: Fill in the blanks.	
	3	**Things that changed the world:** Grammar: articles. *Activities* :Talk about chewing gum (Speaking & Listening). Reading & Writing: Read and write a book review.	
		Practice: Writing Emails, reports and proposals.	

Components for Internal Assessment and Distribution of Marks for CIA and ESE (Theory)

Max Marks	Marks for		Components for CIA						
100	CIA	ESE	CIA		Model		Attendance	Active Engagement	Total
	25	75	Actual	Weightage	Actual	Weightage	5	5	25
			50	**5**	75	**10**			

Question Paper Pattern

Component	Duration in Hours	Section A			Section B			Section C			Total
		Type of Question	No. of Questions	Marks	Type of Question	No. of Questions	Marks	Type of Question	No. of Questions	Marks	
CIA	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 (Lab)

Max Marks	Marks for		Components for CIA						
	CIA	ESE	Test		Model		Experiments / Programs	Observation	Total
100	40	60	Actual	Weightage	Actual	Weightage	Marks	5	40
			50	**10**	60	**15**	**10**		

Examination Pattern

Component	Duration in Hours	Marks			Total Marks
		Practical Exam	Record	Weightage	
Test	2	50	-	**10**	50
Model	3	60	-	**15**	60
Experiments	-	-	-	**10**	10
Observation	-	-	-	**05**	05
Total Marks - CIA				**40**	**40**
ESE	3	50	10	-	**60**

Components for Internal Assessment and Distribution of Marks for CIA (Foundation Course -Theory)

Max Marks	Marks for		Components for CIA				
50	CIA	ESE	CIA		Model		Total
	50	-	Actual	Weightage	Actual	Weightage	
			50	**25**	50	**25**	**50**

Question Paper Pattern

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

Components for and Distribution of Marks for ESE (Theory) Ability Enhancement Compulsory Courses (AECC) & Question Paper Pattern

Duration in Hours	Mode of Exam	Type of Questions	No. of Questions	Marks
2	Online	MCQ	50	50x1=50

Semester 2

Semester 2									
Course Code	**Part**	**Course Category**	**Course Name**	**Hours/ Week**	**Examination**				**Credits**
					Duration in Hours	**Max Marks**			
						CIA	**ESE**	**Total**	
25TAM21L	I	Language - I	Tamil- II	4	3	25	75	100	3
25HIN21L	I		Hindi- II						
25MAL21L	I		Malayalam- II						
25FRE21L	I		French- II						
25ENG22L	II	Language - II	English- II	4	3	25	75	100	3
25BCC23C	III	Core - III	Financial Accounting- II	6	3	25	75	100	4
25BCC24P	III	Core Lab - II	Programming with C++ Lab	4	3	40	60	100	2
25BCC25P	III	Core Lab - III	Fintech & Digital Finance Innovation Lab	4	3	40	60	100	3
25BCC26A	III	Allied - II	Business Law	4	3	25	75	100	3
25HUM2FC/	IV	FC - II	Human Rights/	2	2	50	-	50	2
25DIM2FC			Disaster Management						
25IDT2AE	IV	AECC - II	Innovation & Design Thinking	2	2	-	50	50	2
25IPR2AE			Intellectual Property Rights						
25END2AE			Entrepreneurship Development						
			Total	**30**				**700**	**22**

Part - I: Language - I: தமிழ் - II

Course Code	Course Name	Category	Hours / Week	Credits
25TAM21L	Tamil - II	Language - I	4	3

Course Objectives

The Course intends to cover

- தமிழ் இலக்கியம் கற்பதன் மூலம் நாகரிகம் மற்றும் பண்பாட்டைப் புரிந்துகொள்ளுதல்.
- தனிப்பட்ட வளர்ச்சி, படைப்பாற்றல் திறனை வளர்த்தல்.
- வாழ்வியல் அறங்களைக் கற்றல் மற்றும் வாழ்வைச் செழுமையாக்க உதவும் நன்னெறிகளை அறிதல்.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	அற இலக்கியங்கள் வழி வாழ்வியல் ஒழுக்கங்களைப் பின்பற்றுதல்	K1 - K3
CLO2	பக்தி இலக்கியங்கள் வழி பக்தி நெறிகளை உணர்தல்.	K1 - K3
CLO3	உரைநடை இலக்கிய படைப்பாளர்களின் சிந்தனைகளைக் கற்று பின்பற்றுதல்	K1 - K3
CLO4	தமிழ் இலக்கிய வரலாற்றில் அற இலக்கியம் மற்றும் உரைநடையின் தாக்கம் குறித்து அறிதல்	K1- K3
CLO5	இலக்கணங்களைக் கற்று பிழையின்றி எழுதுதல்.	K1 - K3
K1 - Remember; **K2** - Understand; **K3** - Apply		

Unit	Content	No. of Hours
I	**(அறம்)** 1. திருக்குறள்(மூன்று அதிகாரங்கள்) • புகழ் • வினை செயல்வகை • நெஞ்சொடு கிளத்தல் 2. திரிகடுகம்(10, 16, 19, 26, 42 பாடல்கள் மட்டும்) 3. பழமொழி நானூறு(2,7,21,54,69,119,130,184,267,375 பாடல்கள் மட்டும்)	14
II	**(பக்தி)** 1. தாயுமானவர் பாடல்கள்(பராபரக் கண்ணி முதல் 10 பாடல்கள்) 2. உமர்கயாம் பாடல்கள் (தனிப்பாடல்கள்) - கவிமணி தேசிகவிநாயகம் பிள்ளை 3. வள்ளலார் பாடல்கள்(திருவருட்பா - வள்ளலார் விண்ணப்பம்) 4. இயேசுகாவியம் - மலைப்பொழிவு - கண்ணதாசன் 5. சித்தர் பாடல் - சிவவாக்கியார் பாடல்	14
III	**(கலை மற்றும் பண்பாடு)** 1. அறம் எனப்படுவது - அமுதன் 2. ஏட்டில் எழுதா இலக்கியம் - ஔவை துரைச்சாமி 3. கீழடி - தொல்லியல் துறை, வெளியீடு 4. மனம் எனும் சொர்க்கவாசல்- டாக்டர் எம்.எஸ்.உதயமூர்த்தி 5. ஆளுமைத் திறன் - அறிவுக்கதிர். அரசுப்பணி சிறப்பிதழ்	12
IV	**(இலக்கிய வரலாறு)** 1. பதினெண் கீழ்க்கணக்கு நூல்கள் 2. உரைநடையின் தோற்றமும் வளர்ச்சியும்	10
V	**(இலக்கணம்)**	10

	1. சொல்லின் வகைகள் 2. வேற்றுமைத் தொகைகள் 3. பகுபத உறுப்புகள்	
	Total Hours	**60**

Reference Books

1	கவிஞர் கண்ணதாசன், (2006, 6-ஆம் பதிப்பு), இயேசு காவியம், கலைக்காவிரி பதிப்பகம்.
2	நடராசன் தி.சு. (2013, 16-ஆம் பதிப்பு), உரைகளும் உரையாசிரியர்களும், நியூ செஞ்சுரி புக் ஹவுஸ்.
3	முனைவர் சேதுராமன் சி.(2010, முதல் பதிப்பு), அபிராமி அந்தாதி, நியூ செஞ்சுரி புக் ஹவுஸ்.
4	முனைவர் பஞ்சாங்கம் கா. (2017, 4-ஆம் பதிப்பு), தமிழ் இலக்கிய வரலாறு, காவியா பதிப்பகம்.
5	வரதராசன் மு. (2021, 34-வது பதிப்பு), தமிழ் இலக்கிய வரலாறு, சாகித்திய அகாதமி பதிப்பு.
6	செல்வநாயகம் வி.(2003, முதல் பதிப்பு), தமிழ் உரைநடை வரலாறு, அடையாளம் பதிப்பகம்.
7	பேரா. முனைவர் பாக்கியமேரி, (2022, 6-ம் பதிப்பு), வகைமை நோக்கில் தமிழ் இலக்கிய வரலாறு, நியூசெஞ்சுரி புக் ஹவுஸ்(பி). லிட்.
8	டாக்டர் உதயமூர்த்தி எம். எஸ்.(2016, முதல் பதிப்பு), எண்ணங்கள், வெளியீடு கங்கை புத்தக நிலையம்.
9	புலவர்.பொன்மணிமாறன், (2011, முதல் பதிப்பு) அடோன் தமிழ் இலக்கணத் தொகுப்பு, அருண் பப்ளிஷிங்.
10	குமரன் கோ (2010, முதல் பதிப்பு), தமிழ் இலக்கணம் எளிய அறிமுகம் , சந்தியா பதிப்பகம்.

Part - I: Language - I - Hindi - II

Course Code	Course Name	Category	Hours / Week	Credits
25HIN21L	Hindi - II	Language - I	4	3

Course Objectives

The Course intends to cover

- A basic understanding of contemporary poetry can be gained and the nature of modern poetry can be realized.
- Realizing the nature of drama and its nature and improving the knowledge of reading and understanding the nature of contemporary plays.
- Understand the benefits of correspondence and can enhance the correspondence you need.
- Translation is especially useful for translating from Hindi to English

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Get a basic understanding of renewal poetry and the essence of the poem	K1
CLO2	It is possible to understand the genre of Drama	K2
CLO3	Translating skill improved specially from English to Hindi	K2, K3
CLO4	Knowledge is gained by using phrases and idioms	K3
CLO5	Learners can express opinion in small sentences	K4
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyse		

Unit	Content	No. of Hours
I	**Modern Poetry :** Panchvati By Mythli Sharan Gupt	14
II	**One Act Play:** Ekaniki Piyush 1. Owrangjeb ki aakirirath- Ramkumar varma 2. Ek din - Lakshminarayan Misra 3. Vapasi - Vishnuprabhakar 4. Badsurath rajkumari - Krishnachandra 5. Aakket - Harijeeth	14
III	**Letter Writing :** (Leave Letter, Job Application, Ordering Books, Letter to Publisher, Personal Letter)	12
IV	**Conversation:**(Doctor & Patient, Teacher & Student, Storekeeper & Buyer, Two Friends, Booking Clerk & Passenger at Railway Station, Auto rickshaw driver and Passenger)Ref : Bolchal Ki Hindi Aur Sanchar by Dr. Madhu Dhavan Vani Prakashan, New Delhi.	10
V	**Translation:** Hindi-English only Lessons - 1-15 only Anuvadh Abyas -III	10
	Total Hours	**60**

Text Book

1.	Luca Giachino, Carla Baracco, Romain Chrétien(DELF), (2022), Nouvelle Génération A1, Didier FLE

Reference Books

1.	Kavya Parasar, Dr.Bolanath,(2018) Jawahar Pusthakalay, Sadar Bazaar,Mathura-U.P.281001.
2.	Sone ki Varsha (2020) Dakshin Bharat Hindi Prachar Sabha, Chennai - 600 017

Part - I: Language - I - French - II

Course Code	Course Name	Category	Hours / Week	Credits
25FRE21L	French - II	Language - I	4	3

Course Objectives

The course intends to cover

- Understand and use familiar everyday expressions and basic phrases aimed at the satisfaction of concrete needs.
- Recognize key aspects of Francophone cultures such as greetings, etiquette, daily life, and basic geography of French-speaking countries.
- Write short, simple texts such as postcards, emails, or short descriptions about themselves and their immediate environment.
- Construct simple sentences using correct word order and basic vocabulary.
- Develop sensitivity to cross-cultural differences in communication and social practices.
- Read and understand short, simple texts such as personal messages, advertisements, menus, and schedules.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Improve all the four French language skills (speaking, listening, reading, and writing) (Effective communicators)	K1
CLO2	Comprehend French and other Francophone nations' cultures and civilizations.	K2
CLO3	Comprehend the fundamentals of language structure, vocabulary, grammar, and phonetics (language skill).	K3
CLO4	The French DELF-A1 Certification is appreciated.	K3
CLO5	Developing Communication Skills	K4
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4**-Analyse		

Unit	Content	No. of Hours
I	Portraits(pg 50-60) Grammaire: pg(140-144)	14
II	Communication(pg 61-65) Grammaire: pg(145-146)	14
III	Temps Libre(pg 66-68) Grammaire: pg(147)	12
IV	Mots Et Expressions((pg 69-76) Grammaire: pg(148-151)	10
V	Communication(pg 77-81) Grammaire: pg(152-155)	10
	Total Hours	**60**

Text Book

1. Luca Giachino, Carla Baracco, Romain Chrétien(DELF), (2022), Nouvelle Génération A1, Didier FLE.

Reference Book

1. Nathalie Hirschsprung, Tony Tricot, (2017) Cosmopolite, Hachette.

Part - II: Language-II
English - II

Course Code	Course Name	Category	Hours /Week	Credits
25ENG22L	English-II	Language - 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

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

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.	K3
CLO4	Strengthen the writing skills for documentation.	K3
CLO5	Demonstrate flexibility and mobility in the sequel LSRW Skills.	K3
K1 - Remember; **K2** - Understand; **K3** - Apply		

Unit	Content	No. of Hours
I	**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
II	**Prose**: Humour 1. With The Photographer - Stephen Leacock 2. Travel by Train - J.B.Priestley 3. On Forgetting - Robert Lynd	12
III	**Short Stories:** Integrity 1. The taxi driver - K.S. Duggal 2. A Retrieved Reformation- O Henry 3. Kabuliwala - Rabindranath Tagore	12
IV	**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
V	**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**

Text Books	
1.	Ezekiel Nissim, (1989), Collected Poems 1952-1988, Oxford University Press.
2.	Hewings, M. (2000), Advanced English Grammar, Cambridge University Press.
Reference Books	
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

Course Code	Course Name	Category	Hours/Week	Credits
25BCC23C	Financial Accounting- II	Core - III	6	4

Course Objectives

The course intends to Cover.

- Methods of depreciation and accounting of royalty.
- Accounting treatment of branch, hire purchase and installment system.
- Partnership accounts relating to admission, retirement, death, dissolution and insolvency of a partner.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the concept of depreciation and accounting treatment of royalty.	K1 - K2
CLO2	Apply the knowledge in preparing Hire purchase, Installment and Branch accounts.	K3
CLO3	Understand the accounting treatment for admission of a partner in a partnership firm.	K2
CLO4	Understand the accounting treatment at the time of retirement and death of a partner.	K3
CLO5	Compute the settlement of accounts at the time of dissolution of a partnership firm.	K3
K1 - Remember**; K2** - Understand; K**3** - 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 (medium)		**1**-Slight (low)	

Core - III: Financial Accounting - II

Unit	Content	No. of Hours
I	**Depreciation & Royalty Accounts:** **Depreciation**: Meaning, Characteristics, Causes, Methods: (Straight line method, Diminishing method, Annuity method, Insurance policy method, Revaluation method. **Royalty**: Meaning - Technical terms - Accounting treatment- Specimen Journal Entries	18
II	**Branch Accounts, Hire Purchase & Installment System:** **Branch Accounts:** Meaning, Technical Terms, Types of Branches: Dependent Branches - (Debtors system, Stock and Debtors system - Independent Branches: Foreign Branches. **Hire Purchase System:** Definition, Technical Terms. Calculation of Interest - Default and Repossession - Hire Purchase Trading Account. **Installment Purchase System:** Definition, Technical Terms, Difference between Hire Purchase System and Installment System.	18
III	**Partnership Fundamentals & Admission of a partner:** **Partnership Fundamentals:** Definition of partnership - Partnership deed - Interest on Capital - Interest on drawings - Profit & loss appropriation account - Capital accounts of a partner: (Fixed capital method, Fluctuating capital method.) **Admission of a partner: Meaning, Technical Terms, Calculation of Sacrificing Ratio** - Adjustment for revaluation of assets and liabilities - Adjustment for reserves and other accumulated Profits & losses - Adjustment for Capitals: (Calculations of New Profit Ratio and Sacrificing Ratios) - New Balance sheet.	18
IV	**Retirement & Death of a Partner**: **Retirement of a Partner**: Gaining Ratio - Treatment of goodwill on retirement- Adjustment of Capital after retirement - Memorandum Revaluation a/c. **Death of a Partner**: Provisions - Mode of Payment - Accounting treatment.	18
V	**Dissolution of a firm:** **Dissolution:** Meaning and modes of dissolution - Settlement of accounts - Accounting treatment - Realization account - Treatment of goodwill - Preparation of balance sheet. **Insolvency of a Partner:** Insolvent of single and more than two partners - All partners insolvent - Application of Garner Vs Murray rule - Piecemeal distribution: Surplus capital method and Maximum loss method.	18
	Total Hours	**90**
Theory 20% & Problem 80%		
Text Books		
1.	Jain.S.P., and Narang.K.L., (2022), Advanced Accountancy (21st ed.), Kalyani Publishers, New Delhi.	
2.	Reddy and Murthy.A, (2015), Financial Accounting (7th ed.), Margham Publications, Chennai.	
3.	Radhaswamy L and Gupta.R.L., (2015), Advanced Accounting (Vol: II), Sultan Chand & Sons, New Delhi.	

Reference Books	
1.	Tulsian P C & Tushar Tulsian, et al, (2023), Advanced Accounting (3rd ed.), Sultan Chand & Sons Publications, New Delhi.
2.	Horngren Charles.T, Sundern Gary.L, Elliott John.A, Philbrick Danna.R, (2017), Introduction to Financial Accounting (11th ed.), Pearson Education.
3.	Maheshwari.S.N., (2010), Financial and Management Accounting, Vikas Publishing House, Noida.
Web Resources (Swayam /NPTEL)	
1.	https://onlinecourses.swayam2.ac.in/nou24_cm02
2.	https://onlinecourses.swayam2.ac.in/imb24_mg08
3.	https://onlinecourses.swayam2.ac.in/cec24_mg05

Course Code	Course Name	Category	Hours/Week	Credits
25BCC24P	Programming with C++ Lab	Core Lab - II	4	2

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 Book

1. Balagurusamy.E, (2013), Object-Oriented Programming with C++, 7th Edition.

Reference Books

1. Ashok N Kamthane, (2003), Object-Oriented Programming with ANSI and TurboC++
2. Maria Litvin & GrayLitvin, (2002), C++ for you, Vikas publication.

Web Resources (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	Credits
25BCC25P	Fintech and Digital Finance Innovation Lab	Core Lab - III	4	3

Core Lab- III: Fintech and Digital Finance Innovations Lab

Unit	Content	No. of Hours
1	Interface Navigation & Tooling Basics (Gate-0): Open the starter kit; navigate Power BI (Model/Data/Report), DB Browser for SQLite, and the Postman collection (no live calls needed). Load sample CSVs into Power BI, inspect schemas, and run the 10-min readiness micro-task (import → basic clean → export). Deliverables: readiness checklist ≥70%, starter PBIX opened, dataset profiling notes.	5
2	Payments Lifecycle & Actors (UPI/Cards/Wallets): Map columns from Orders, Gateway Payments, Internal Payments, and Refunds to authorize → capture → settlement → refund stages. Produce a one-page flow showing 5 common failure scenarios and the identifying fields (order_id, payment, status, failure code, ts).	5
3	Keys, IDs & Data Model (Star Schema for Ops): Identify primary/foreign keys; define relationships between Orders, Payments, Refunds. Validate row counts across sources; detect & fix duplicates/missing keys. Deliverables: schema.sql / model diagram, parity screenshots.	5
4	Power Query Fundamentals (Types, Splits, Standardization): Clean headers; set data types; split created_at into date/time; trim/uppercase key fields; build reusable Clean_ queries* for Orders and Payments. Deliverables: Cleaned_Orders.csv, Cleaned_Payments.csv + PQ steps doc.	5
5	Reconciliation Setup (Left/Anti Joins): Build match table (Orders↔Payments) via left-join; surface PG-only and Internal-only using anti-joins; compute basic parity checks (counts/amounts). Deliverables: MatchSummary.csv, Unmatched_PGOnly.csv. Gate-1 acceptance: ≥80% parity vs golden outputs.	5
6	Exception Taxonomy & T+1 Recon Pack: Define reason codes (timeout, duplicate capture, insufficient funds, etc.); generate Exceptions.csv with code and hint; bundle a T+1 Recon Pack (counts, sums, exceptions, README).	5
7	API Events Normalization (Offline-First): Using curated JSON/JSONL traces, map request/response fields; build Events table with event_id, order_id, type, status, failure_code, ts, idempotency_key. Create a failure-code dictionary. Deliverables: api_events.csv + mapping.md.	5
8	Webhooks, Retries & Order Timeline (Gate-2): Simulate webhook deliveries and retries; de-dup by event_id; construct a chronological order-centric timeline (create→capture→refund) and flag gaps. Deliverables: events_timeline.csv + dedupe logic note. Gate-2 acceptance: correct dedupe + coherent timeline.	5
9	SQL for MIS (Daily KPIs + Refund Analytics): In SQLite (v≥3.35), produce daily SuccessRate and RefundRate, AOV, and refund SLA metrics with GROUP BY/HAVING/CASE; export kpi_daily.csv. Add top-N failure reasons by share.	5

Unit	Content	No. of Hours
10	Windows, Cohorts & Anomaly Flags: Use ROW_NUMBER /LAG/LEAD/moving-avg to compute rolling success rate (7-day); build first-paid-month cohorts; create an anomaly_candidates view (DoD spikes, duplicate captures). Deliverables: views.sql, cohort.csv.	5
11	Dashboard Core + Exceptions UX & Export QA: In Power BI, wire model + date table; implement exactly 5 core measures — SuccessRate, RefundRate, AOV, MatchRate_T1, Exceptions Count. Add slicers, drill to failure codes, and an Exceptions bookmark. QA: exported exceptions_export.csv must match the visual row-for-row. Deliverables: PBIX v2 + QA screenshot.	5
12	Compliance, Runbooks, Capstone Build & Showcase: Implement Consent Log (latest-consent per user), 3 AML rules, and a Redaction SOP (zero-PII check). Assemble capstone: ≥30 days data, recon parity ≥95%, 5 KPIs, escalation flow + webhook-outage playbook. Package PBIX/CSV/SQL/SOP and deliver a 3-5 min demo + viva. Deliverables: final kit zip + recording link.	5
	Total Hours	**60**

Text Books

1.	Susanne Chishti, (2025), The FINTECH Book, Wiley Publishers, New Delhi.
2.	Brett King (2018), Bank 4.0: Banking Everywhere, Never at a Bank, Wiley Publishers, New Delhi.

Reference Books

1.	Vivek Dubey, Awadhesh Singh , Ashish Jain, Sudeesh Pillai, Geetha Raghuraj, Saumya Ranjan Pradhan,(2025), The Journey of FinTech: Fintellectual Minds Exploring FinTech Through Gen AI Lens, Notion Press, Chennai.
2.	Chandrahaus Chavan & Atul Patankar (2024), Introduction to FinTech (1st ed.), Pearson, Bengaluru.

Web Resources (Swayam / NPTEL)

1.	https://nptel.ac.in/courses/110106072

Course Code	Course Name	Category	Hours/Week	Credits
25BCC26A	Business Law	Allied - II	4	3

Course Objectives

The 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.	K1 - K2
CLO2	Summarize the rules related to the contracts and issues related to termination and breach of contracts.	K1 - K2
CLO3	Identify the rules related to indemnity and guarantee, bailment and pledge	K3
CLO4	Describe the various laws to safeguard the rights and duties of a buyer and seller.	K1 - K2
CLO5	Enhance knowledge about negotiable instruments and parties involved in it	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	3
CLO3	3	3	3	3	3
CLO4	3	3	3	3	2
CLO5	3	3	3	3	2
3-Substantial(high)		**2**-Moderate (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	11
III	**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. Case Studies.	12
	Total Hours	**60**

Text Books

1. Gulshan,S.S., (2007), Mercantile Law, (3rd ed.), Excel India Publishers, New Delhi.
2. Kapoor,N.D., (2022), Elements of Mercantile Law, (38th ed), Sultan Chand & sons, New Delhi.
3. Shukla,M.C., (2021), Mercantile Law, S.Chand & Company, New Delhi.

Reference Books

1. Kuchhal,M.C., (2006), Mercantile Law, (6th ed.), Vikas Publishing House Pvt. Ltd., Noida.
2. Gogna,P.P.S., (2016), Mercantile Law, (7th ed.) S.Chand & sons Company, New Delhi.

Web 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

Course Code	Course Name	Category	Hours / Week	Credits
25HUM2FC	Human Rights	FC-II	2	2

Unit	Content
I	**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 :** Self-analysis and introspection; sensitization towards gender equality, physically challenged, intellectually challenged. Respect to - age, experience, maturity, family members, neighbours, co-workers. Character Formation Towards Positive Personality: Truthfulness, Constructively, Sacrifice, Sincerity, Self Control, Altruism, Tolerance, Scientific Vision.
II	**Value Education Towards National and Global Development** **National and International Values:** Constitutional or national values - Democracy, socialism, secularism, equality, justice, liberty, freedom and fraternity. Social Values - Pity and probity, self-control, universal brotherhood. 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.
III	**UNIT - III: Impact of Global Development on Ethics and Values** Conflict of cross-cultural influences, mass media, cross-border education, materialistic values, professional challenges and compromise. 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.
IV	**UNIT - IV: Therapeutic Measures** Control of the mind through a. Simplified physical exercise b. Meditation - Objectives, types, effect on body, mind and soul c. Yoga - Objectives, Types, Asanas d. Activities: (i) Moralisation of Desires (ii) Neutralisation of Anger (iii)Eradication of Worries (iv)Benefits of Blessings

Unit	Content
V	**UNIT - V: 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.
Total Hours	**30**

Course Code	Course Name	Category	Hours / Week	Credits
25DIM2FC	**Disaster Management**	**FC - II**	**2**	**2**

Unit	Content

I	**Unit I: Introduction to Disasters** 1.1. Definition of Concepts 1.2. Difference between hazards and vulnerability 1.3. Types of Disasters 1.4. Natural Disasters 1.5. Human - Made Disasters
II	**Unit II: Disasters Management** 2.1. Disaster Management 2.2. Disaster Management Cycle 2.3. Key Phases of Disaster Management 2.4. Disaster and Development 2.5. Disaster Impacts on Differential Groups
III	**Unit III: Vulnerability Assessment and Reduction** 3.1. Vulnerability 3.2. Vulnerability Assessment 3.3. Early Warning System 3.4. Factors Contributing to Vulnerability 3.5. Vulnerability Reduction 3.6. Impact of Development Projects such as Dams, Embankments, Changes in Land-use etc. 3.7. Climate Change Adaptation
IV	**Unit IV: Disaster Risk Reduction** 4.1. Disaster Risk Reduction (DRR), 4.2. Knowledge Management in Disaster Risk Reduction 4.3. The Knowledge Management Cycle 4.4. Role of Information and Knowledge in Disaster Risk Reduction 4.5. Indigenous Knowledge and Disaster Risk Reduction 4.6. Indigenous Knowledge and Early Warning Indicators 4.7. Indigenous Knowledge and Coping Strategies 4.8. Sendai Framework for Disaster Risk Reduction 4.9. Intergovernmental Panel on Climate Change (IPCC) 4.10. IPCC Scenario in the Context of India
V	**Unit V: Institutional Framework for Disaster Management** 5.1. National Policy on Disaster Management 2009 5.2. The National Disaster Management Authority (NDMA) 5.3. State Disaster Management Authority (SDMA) 5.4. District Disaster Management Authorities (DDMAs) 5.5. Community-Based Disaster Management (CBDM) 5.6. NGOs and Disaster Management 5.7. Other Related Policies, Plans, Programmes and Legislation
Total Hours	**30**

Text Books

1. Sharma S.C(2020), Disaster Management (1st ed.), Khanna Book Publishing Co. (P) Ltd, New Delhi.
2. Srivastava A.K (2021), Text Book of Disaster Management, Scientific Publishers, Jodhpur.

Reference Books

1. Pradeep K Goyal,Alm RS Gupta, Disaster Management, All India Council for Technical Education Nelson Mandela Marg, Vasant Kunj, New Delhi, 110070

2	Subramanian, (2018), Disaster Management, Vikas Publishing House, Noida.
Web Resources(Swayam/NPTEL)	
1	https://onlinecourses.swayam2.ac.in/cec19_hs20/preview
2	https://onlinecourses.swayam2.ac.in/cec25_hs135/preview

Course Code	Course Name	Category	Hours / Week	Credits
25IDT2AE	Innovation and Design Thinking	AECC - II	2	2

Course Objectives

The Course intends to cover

- The principles and practices of innovation and design thinking.
- Creative problem-solving skills, and impactful solutions across diverse contexts.
- The user-centered research techniques, and practical tools to generate, prototype.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the design thinking methodology for solving real-world problems.	K2
CLO2	Generate, prototype, and test innovative ideas.	K3
CLO3	Frame human-centered solutions and present them effectively.	K3
CLO4	Enhance their confidence in collaborative approaches to problem solving.	K3
CLO5	Integrate innovation strategies into business, social, and creative contexts to drive sustainable impact.	K4
K2 - Understand; **K3** - Apply ; **K4** - Evaluate		

Ability Enhancement Compulsory Course (AECC) -II: Innovation and Design Thinking

Unit	Content	No. of Hours
I	**Principles of Design Thinking:** Usability, Human-centeredness, Empathy, Iteration. **Types of Innovation:** Product, Process, Business Model, Social Innovation.	6

II	**Empathy & Defining The Problem:** Understanding users - observation - ethnographic research - interviews - Empathy maps and personas - Identifying user pain points - Problem framing vs. problem solving.	6
III	**Ideation & Creativity Tools:** Divergent vs. Convergent Thinking - Brainstorming and mind mapping techniques - SCAMPER. Idea selection and prioritization frameworks.	6
IV	**Prototyping & Experimentation:** Low-fidelity vs. High-fidelity prototyping - Storyboarding, sketching, mock-ups, and role-playing - Rapid prototyping with simple materials.	6
V	**Testing & Feedback:** Testing prototypes with users - Iteration and learning from feedback. **Innovation Strategy & Implementation :** Scaling ideas into innovations - Measuring innovation impact - Barriers - Design Thinking for social change and sustainability.	6
	Total Hours	**30**
Text Books		
1	Kelley, T., & Kelley, D. (2013). Creative confidence: Unleashing the Creative Potential within us all. Crown Business.	
2	Dan Saffer, Designing for Interaction, New Riders Publications, 2010.	
Reference Books		
1	Plattner, H., Meinel, C., & Leifer, L. (Eds.). (2018). Design Thinking Research: Making Distinctions: Collaboration versus Cooperation. Springer.	
2	Liedtka, J., & Ogilvie, T. (2011). Designing for Growth: A Design Thinking Tool kit for Managers. Columbia University Press.	
3	Martin, R. (2009). The Design of Business: Why Design Thinking is the Next Competitive Advantage. Harvard Business Press.	
Web Resources (Swayam / NPTEL)		
1	https://onlinecourses.nptel.ac.in/noc22_mg32/preview	
2	https://onlinecourses.swayam2.ac.in/imb23_mg65/preview	
3	https://onlinecourses.nptel.ac.in/noc20_hs08/preview	

Course Code	Course Name	Category	Hours/Week	Credits
25IPR2AE	**Intellectual Property Rights**	**AECC - II**	**2**	**2**

Course Objectives

- This course intends to cover
- Identify the objectives, forms, duration, and scope of protection for different types of intellectual property.

- Understand the global IP framework and India's compliance challenges.
- Recognize the role of IP as a policy tool for national, economic, social, and cultural growth.
- Gain knowledge of substantive laws and procedural mechanisms of IP in India.Analyze recent national and global trends in intellectual property rights.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the core principles of intellectual property protection.	K1, K2
CLO2	Identify the key concepts and principles of trademarks.	K2
CLO3	Comprehend the legal implications and rights under copyright law.	K3
CLO4	Understand the legal consequences of patents and trade secrets.	K2
CLO5	Comprehend IP rights for plant varieties and farmers, along with their legal and social aspects.	K4
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze		

Ability Enhancement Compulsory Course (AECC) - II: Intellectual Property Rights

Unit	Content	No. of Hours
I	**Introduction to Intellectual Property:** Introduction, types of intellectual property, international organizations, agencies and treaties, importance of intellectual property rights.	6

II	**Trade Marks:** Purpose and function of trademarks, acquisition of trade mark rights, protectable matter, selecting, and evaluating trade mark, trade mark registration processes.	6
III	**Law of Copy Rights:** Fundamental of copy right law, originality of material, rights of reproduction, rights to perform the work publicly, copy right ownership issues, copy right registration, notice of copy right, international copy right law**.**	6
IV	**Law of Patents, Trade Secrets:** Foundation of patent law, patent searching process, ownership rights and transfer. Trade Secrets: Trade secrete law, determination of trade secrete status, liability for misappropriations of trade secrets, protection for submission, trade secrete litigation.	6
V	**Protection of Plant Varieties and Farmers' Rights:** Introduction -Meaning and Definition - Registrable Varieties of Plants - Procedure for Registration - Plant Varieties Protection.	6
	Total Hours	**30**

Text Books

1	V K Ahuja, (2017), Law Relating To Intellectual Property Rights, 3rd ed.,Lexis Nexis.
2	Elizabeth Verkey, (2018), Intellectual Property Law and Practice, Eastern Book Company.
3	S R Myneni, (2021), Law of Intellectual Property,Asia Law House.

Reference Books

1	B.L. Wadehra (2011), Law Relating To Intellectual Property, Universal Law Publishing House, New Delhi.
2	Avtar Singh (2015), Intellectual Property Law - Eastern Book Company.

Web Resources (Swayam/NPTEL)

1	https://onlinecourses.nptel.ac.in/noc22_hs59/preview

Course Code	Course Name	Category	Hours / Week	Credits
25END2AE	**Entrepreneurship Development**	**AECC - II**	**2**	**2**

Course Objectives

This course intends to cover

- Basics of starting and managing entrepreneurial ventures.
- Tools for planning, funding, and entrepreneurial growth.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the concept of entrepreneurship.	K2
CLO2	Gain knowledge on entrepreneurial motivation	K2
CLO3	Apply business idea evaluation	K3
CLO4	Create systematic Business plan	K3
CLO5	Analyse business finance and support	K4
K1 - Remember; **K2 -** Understand; **K3 -** Apply; **K4 -** Analyse		

Ability Enhancement Compulsory Course - II: Entrepreneurship Development

Unit	Content	No. of Hours
I	**Entrepreneurship:** Meaning of Entrepreneurship - Characteristics, Functions and Types of entrepreneurs - Intrapreneur vs. Entrepreneur - Need for Entrepreneurship in economic development - Contribution to GDP, Employment, Innovation.	5

II	**Entrepreneurial Motivation:** Meaning - Need for Achievement Theory - Risk-taking Behaviour - Innovation and Entrepreneur - Economic & non-economic factors affecting entrepreneurial growth.	5
III	**Business Ideas:** Sources of Business Ideas & Opportunity Identification - Idea generation techniques (Brainstorming, Design Thinking). Business incubation - Technical Assistance for small business - Preparation of Feasibility Reports, Legal Formalities and Documentation	7
IV	**Business Plan:** Meaning and importance of Business Plan - Structure and components - Market Study.	7
V	**Entrepreneurial finance:** Sources of finance (Bank, Angel investors, Venture Capital, Crowdfunding, Mudra Loans) - Institutional support to entrepreneurs (DIC, KVIC, EDII and MSME).	6
	Total Hours	**30**
Text Books		
1	C.B. Gupta and N.P. Srinivasan (2020), Entrepreneurship Development, Sultan Chand and Sons.	
2	Dr. Vasant Desai and Dr. Kulveer Kaur (2021), Entrepreneurship Development and Management, Himalaya Publications.	
Reference Books		
1	Dr. Jayashree Suresh (2021), Entrepreneurial Publications, Margham Publications	
2	S S Khanka (2020), Entrepreneurial Development, Sultan Chand and Sons, New Delhi.	
Web Resources (Swayam/NPTEL)		
1	https://onlinecourses.nptel.ac.in/noc25_mg95/preview	

Components for Internal Assessment and Distribution of Marks for CIA and ESE (Theory)

Max Marks	Marks for		Components for CIA						
100	CIA	ESE	CIA		Model		Attendance	Active Engagement	Total
	25	75	Actual	Weightage	Actual	Weightage	5	5	25

			50	**5**	75	**10**			

Question Paper Pattern

Component	Duration in Hours	Section A			Section B			Section C			Total
		Type of Question	No. of Questions	Marks	Type of Question	No. of Questions	Marks	Type of Question	No. of Questions	Marks	
CIA	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 (Lab)

Max Marks	Marks for		Components for CIA						
	CIA	ESE	Test		Model		Experiments / Programs	Observation	Total
100	40	60	Actual	Weightage	Actual	Weightage	Marks	**5**	**40**
			50	**10**	60	**15**	**10**		

Examination Pattern

Component	Duration in Hours	Marks			Total Marks
		Practical Exam	Record	Weightage	
Test	2	50	-	**10**	50
Model	3	60	-	**15**	60
Experiments	-	-	-	**10**	10
Observation	-	-	-	**05**	05
Total Marks - CIA				**40**	**40**
ESE	3	50	10	-	**60**

Components for Internal Assessment and Distribution of Marks for CIA (Foundation Course -Theory)

Max Marks	Marks for		Components for CIA		
50	**CIA**	**ESE**	**CIA**	**Model**	**Total**

	50	**-**	**Actual**	**Weightage**	**Actual**	**Weightage**	
			50	**25**	50	**25**	**50**

Question Paper Pattern

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

Components for and Distribution of Marks for ESE (Theory)
Ability Enhancement Compulsory Courses (AECC)
&
Question Paper Pattern

Duration in Hours	Mode of Exam	Type of Questions	No. of Questions	Marks
2	Online	MCQ	50	50x1=50

Semester 3

Semester - 3									
Course Code	Part	Course Category	Course Name	Hours/ Week	Examination				Credits
					Duration in Hours	Max Marks			
						CIA	ESE	Total	
25TAM31L	I	Language - I	Tamil- III	4	3	25	75	100	3
25HIN31L	I		Hindi- III						
25MAL31L	I		Malayalam- III						

25FRE31L	I		French - III						
25ENG32L	II	Language - II	English - III	4	3	25	75	100	3
25BCC33C	III	Core - V	Corporate Accounting - I	6	3	25	75	100	4
25BCC34C	III	Core - VI	Company Law and Secretarial Practice	6	3	25	75	100	4
25BCC35P	III	Core Lab- III	Data Analytics for Finance Lab	4	3	40	60	100	3
25BCC36A	III	Allied - III	Python Programming	4	3	25	75	100	3
25BCC37P	III	SEC Lab - I	Python Programming Lab	2	3	40	60	100	2
25BAT3FC	IV	FC - II	Basic Tamil /	-	2	-	50	50	2
25BAT3FC			Advanced Tamil/						
25IKS3FC			Indian Knowledge Systems (IKS)*						
25MOO3AE	IV	AECC - III	Online Course - MOOC	-	-	50	-	50	2
Total				**30**				**800**	**26**

Part -I: Language - I - Tamil - III

பயன்பாட்டுத் தமிழ்

Course Code	Course Name	Category	Hours / Week	Credits
25TAM31L	**Tamil - III**	**Language - I**	**4**	**3**

Course Objectives

The Course intends to cover

- தமிழரின் பிற துறை சார்ந்த சிந்தனைகளைக் கற்பித்தல்.
- இன்றைய அறிவியல் வளர்ச்சி மற்றும் கணினியின் பயன்பாட்டுத் தேவையை உணர்த்துதல்
- இயற்கை பாதுகாப்பு குறித்த விழிப்புணர்வை வளர்த்தல்

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	வணிகத் தமிழ் - கணினித் தமிழின் நுட்பங்கள் மற்றும் பயன்பாடுகளை அறிந்து பின்பற்றுவர்	K1, K2
CLO2	ஊடகம் மற்றும் உளவியல் தன்மை குறித்த சிந்தனைகளை வளர்த்துக் கொள்வர்	K2
CLO3	சுற்றுலா - சுற்றுச்சூழலியல் தேவை மற்றும் மீட்டுருவாக்கம் குறித்து உணர்த்து செயல்படுதல்	K3
CLO4	மேலாண்மை பற்றி அறிதல் மற்றும் சுயக்கற்றல் திறனை வளர்த்துக் கொள்ளுதல்	K1, K3
CLO5	பன்முக ஆளுமைகள் குறித்து அறிந்து தனித்திறன்களை உருவாக்கிக் கொள்வர்.	K2, K3
K1 - Remember; **K2** - Understand; **K3** - Apply		

Language - I: Part - I : Tamil - III

பயன்பாட்டுத் தமிழ்

Unit	Content	No. of Hours

I	**வணிகம் மற்றும் கணினித் தமிழ்** தமிழரின் வணிகம் - வணிகக் கடிதங்கள் - உலகமயமாக்கல் - செயற்கை நுண்ணறிவு கற்றல் - இணைய நூலகம் - இணையத் தமிழ் பயன்பாடு	12
II	**ஊடகம் மற்றும் உளவியல் தமிழ்** ஊடகத்தின் இன்றியமையாமை - நிகழ்வுகளைச் செய்திகளாக வடிவமைத்தல் - ஊடகத் துறையில் மொழியின் பங்கு - உளவியல் வரையறை - உளவியல் பிரிவுகள் - வகுப்பறை உளவியல் (ஆசிரியர், மாணவர்)	12
III	**சுற்றுச்சூழலியல் மற்றும் சுற்றுலாவியல்** தமிழரின் சூழலியல் அறிவு - சுற்றுச்சூழல் மாசுபாடு - சுற்றுச்சூழல் பாதுகாப்பு - சுற்றுலா வகைகள் - உலகப் புகழ்பெற்ற சுற்றுலாத் தலங்கள் - சுற்றுலா வளர்ச்சி மற்றும் பயன்கள்	12
IV	**மேலாண்மைத் தமிழ் மற்றும் மொழிப்பயிற்சி** மேலாண்மையும் அணுகுமுறைகளும் - மேலாண்மை செயல்பாடுகள் மற்றும் வகைகள் - வகுப்பறை மேலாண்மை - நேர்காணல் - நூல் திறனாய்வு மற்றும் மதிப்பீடு - படிவங்கள் பூர்த்தி செய்தல் மற்றும் விண்ணப்பங்கள்	12
V	**பன்முக ஆளுமைகள்** ஜி.டி.நாயுடு(அறிவியல்) - பத்மஸ்ரீ டாக்டர் பக்தவத்சலம்(மருத்துவம்) - நா மகாலிங்கம்(தொழில்) - மயில்சாமி அண்ணாதுரை(விஞ்ஞானம்) - என் ஜி ராமசாமி(சமூகம்) - நம்மாழ்வார்(விவசாயம்)	12
	Total Hours	**60**

Reference Books	
1	சுந்தரம்.இல, (2022) கணினித் தமிழ், விகடன் பிரசுரம்
2	மணியரசன்.துரை, (2019), இணையமும் இனியத் தமிழும், இசை பதிப்பகம்

3	பொன்னவைக்கோ.மு, (2015) இணையத் தமிழ் வரலாறு, பாரதிதாசன் பல்கலைக் கழகம்.
4	தங்கமணி இரா.ம, (2018) சுற்றுலாவியல், கொங்கு பதிப்பகம்
5	இலக்கியா க.வி, நந்தினி சா.சு,(2022), விடியல் பதிப்பகம்
6	சின்னத்தம்பி முருகேசன்.பொன்(2016) சுற்றுச் சூழலியல்(உலகம் தழுவிய வரலாறு), எதிர் வெளியீடு
7	இறையன்பு.வெ (2018) இலக்கியத்தில் மேலாண்மை, நியூ செஞ்சுரி புக் ஹவுஸ்
8	ஸ்ரீனிவாசன்.வி, (2009), திருக்குறளில் மேலாண்மை, விகடன் பிரசுரம்
9	பட்டனத்தி மைந்தன், (2018), ஜி.டி நாயுடு, ராமையா பதிப்பகம்
10	டாக்டர் பக்தவத்சலம்.ஜி (2009) இதயம் ஒரு கோவில், விஜயா பதிப்பகம்

Part - I: Language - I- Hindi - III

Course Code	Course Name	Category	Hours / Week	Credits

25HIN31L	**Hindi - III**	**Language - I**	**4**	**3**

Course Objectives

The Course intends to

- Have knowledge of the contents of primitive poetry.
- Learn about contemporary poetry and its techniques.
- Interest in reading poetry and the ability to express social thoughts
- Understand the basics of Hindi literature properly.
- Provide knowledge of the elements of poetry and subtle translation will improve.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Get a basic knowledge of the history of Hindi literature.	K1
CLO2	Enhances the art and taste of Hindi literary works	K2
CLO3	Literary genres can be learned	K3
CLO4	Create an interest to read and enjoy Hindi poetry	K4
CLO5	Get the basic Knowledge of poetry techniques like Anlankar.	K4
K1 - Remember; **K2** - Understand; **K3** - Apply;**K4** - Analyze		

Part - I: Language - I - Hindi - III

Unit	Content	No. of Hours
I	**Poetry:Kavya Tharang - by Dr. Niranjan** **Pracheen Kavitha** 1. Mahatma kabeer - sakhi & padh (2) 2. Goswamy tulsidas - pad(4) 3. Mahatma soordas- pad(3) 4. Kavivar rahim - dohe(6)	12
II	**Modern Poetry : Kavya Tharang- by Dr. Niranjan** 1. Nirjar - Mythili sharan gupth 2. Parichay - Ramdhari singh Dinkar 3. Prethibimb - Sumithra nandan Panth 4. Kavi kaha ththa - Sooryakanth Tripati Nirala 5. Kah de mam Kya ab dekoon - Mahadevi varma 6. Kanu ke prathi - Darmveer Bharathi 7. Loha ka swad - Dhumil 8. Bhanth Kidikkiyon ki Takrahat - Gorakh pande	12
III	**History of Hindi Literature :(Tippaniyan)** 1. Bhakthi kal ka samanya parichaya (Kabeer, Jaysi, Soor, Thulsi, Meera, Raskhan, Rahim)	12
IV	**Ras Chad & Alankar:** 1. Srungar & veer Ras 2. Anupras & Upama 3. Dhoha & Rola	12
V	**Translation : English-Hindi only** 1. Anuvadh Abhyas - III (16-30 Lessons Only)	12
	Total Hours	**60**

Text Books	
1.	Kavya Tharang - by Dr. NIRANJAN, Jawahar Pusthakalay, Sadar Bazaar, Mathura U.P.281001.
2.	Anuvadh abyas-III,Dakshin Bharath Hindi Prachar Sabha Chennai - 17.
Reference Books	
1.	Hindi sahithya ka saral ithihaas,by Rajnath sharma, vinod pustak mandir, agra-282
2.	Kavya Pradeep Rambadri Shukla, Hindi Bhavan, 36, Tagore Town, Allahabad - 211 002.

Part - I: Language - I- Malayalam - III

Course Code	Course Name	Category	Hours / Week	Credits

25MAL31L	**Malayalam - III**	**Language - I**	**4**	**3**

Course Objectives

The Course intends to cover

- Knowledge of the contents of primitive poetry.
- Learn about contemporary poetry and its techniques.
- Reading poetry and the ability to express social thoughts will improve.
- Basics of Malayalam Poetry and to understand Malayalam literature properly.
- Provide knowledge of the elements of poetry.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Get a basic knowledge of the history of Malayalam literature.	K1
CLO2	Enhances the art and taste of Malayalam literary works	K1
CLO3	Literary genres can be learned	K2
CLO4	Create more to read and enjoy Malayalam poetry	K3
CLO5	Get the basic Knowledge of poetry techniques	K4
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze		

Part - I: Language - I - Malayalam - III

Unit	Content	No. of Hours
I	Poetry - Sishyanum makanum - Vallaththol Narayana Menon	12
II	Poetry - Sishyanum makanum - Vallaththol Narayana Menon	12
III	Poetry - Rafeeque Ahammed (Selected poetries Thoramazha, Madhuranarangakal, Athrayum,Umma,Pakaram)	12
IV	Poetry-RafeequeAhammed(Selectedpoetries-Ammathottil,Vidhyalayam,	12
V	Thottakutty,Sivakami,Ithanu prarthana)	12
	Total Hours	**60**

Text Books

1.	Sishyanum makanum - Vallaththol Narayana Menon,Poorna Publishers.
2.	Rafeeque Ahammed - Selected poetries ,Mathrubhumi Books, Kozhikkode
3.	Aayisha - Vayalar Ramavarma - Kerala Book Store Publishers.

Reference Books

1.	Kavitha SahithyaCharitram-Dr.M.Leelavathi (Kerala SahithyaAcademy,Trichur)
2.	Kavitha Dwani-Dr.M.Leelavathi (D.C.Books, Kottayam)
3.	Aadhunika Sahithyacharithram Prasthanangalilude-Dr.K.M.George (D.C.Books, Kottayam)
4.	Padya SahithyaCharithram - T.M.Chummar (Kerala SahithyaAcademy,Trichur)

Part- I: Language - I- French - III

Course Code	Course Name	Category	Hours / Week	Credits
25FRE31L	French - III	Language - I	4	3

Course Objectives

The Course intends to

- Understand and use familiar everyday expressions and basic phrases aimed at the satisfaction of concrete needs.
- Recognize key aspects of Francophone cultures such as greetings, etiquette, daily life, and basic geography of French-speaking countries.
- Write short, simple texts such as postcards, emails, or short descriptions about themselves and their immediate environment.
- Construct simple sentences using correct word order and basic vocabulary.
- Develop sensitivity to cross-cultural differences in communication and social practices.
- Read and understand short, simple texts such as personal messages, advertisements, menus, and schedules.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Improve all the four French language skills (speaking, listening, reading, and writing) (Effective communicators)	K1
CLO2	Comprehend French and other Francophone nations' cultures and civilizations.	K2
CLO3	Comprehend the fundamentals of language structure, vocabulary, grammar, and phonetics (language skill).	K3
CLO4	The French DELF-A1 Certification is appreciated.	K4
K1 - Remember; **K2** - Understand; **K3** - Apply;**K4**- Analyse		

Part - I: Language - I - French - III

Unit	Content	No. of Hours
I	Vendre Et Acheter pg (82-92). Grammaire: pg(156-160)	12
II	Communication(pg 93-97). Grammaire: pg(161-162)	12
III	Tout Le Monde s'amuse(pg 98-100). Grammaire: pg(163)	12
IV	Mots Et Expressions(pg 101-107). Grammaire: pg(164-167)	12
V	Communication(pg 108-120). Grammaire: pg(168-171)	12
Semester III Portions from Textbook « Nouvelle Génération A1» : UNITÉ 5, UNITÉ 6(Pg 82-120) Cahier d'exercices (Pg156-171)		
	Total Hours	**60**

Text Book

1.	Luca Giachino,Carla Baracco, Romain Chrétien(DELF), 2022, Nouvelle Génération A1, Didier FLE

Reference Book

1.	Nathalie Hirschsprung, Tony Tricot, 2017, Cosmopolite, Hachette

Language-II: Part - II: English -III

(All the Undergraduate Programmes)

Course Code	Course Name	Category	Hours / Week	Credits
25ENG32L	English III	Language II	4	3

Course Objectives

The course intends to cover

- The values of patriotism, empowerment and social responsibility through Biographies and Speeches.
- The use of grammar for communication.
- The essential interpersonal skills for effective group interaction.
- The analytical reading and ethical digital writing skills.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Identify key themes in biographies and speeches, and understand the basic structure of the content.	K1
CLO2	Understand the ideas and rhetorical strategies in texts and relate them to social awareness.	K2
CLO3	Apply grammar rules to form clear and accurate sentences in speech and writing.	K3
CLO4	Demonstrate effective listening and speaking skills by participating confidently in group discussions with appropriate body language and voice modulations.	K3
CLO5	Develop reading and writing skills to communicate effectively across different digital platforms with digital integrity.	K3
K1-Remember; **K2**-Understand; **K3**- Apply.		

Language II: Part II - English III

Unit	Content	No. of Hours
I	**Biographies : Patriotism** 1. Nehru - AF Toynbee 2. Martin Luther King - R N Roy 3. C.V. Raman - H. Kusumakar	12
II	**Renowned Speeches : Empowerment** 1. UN Youth Assembly Speech - Malala Yousafzai 2. Give Us a Role Model - A.P.J. Kalam 3. Inaugural Address Nelson Mandela	12
III	**Grammar** 1. Sentence Structure 2. Types of Sentences (Declarative, Interrogative, Imperative, Exclamatory), Transformation of Sentences 3. Active Voice and Passive Voice 4. Direct and Indirect Speech	12
IV	**Listening and Speaking Skills:** 1. **Group Discussion**: Structure of Group Discussion , Types of Group Discussion, Phrases for participating in a Group Discussion ,Do's and Don'ts in a Group Discussion. 2. **Group Dynamics (Nonverbal and Behavioural Aspects)**: Body Language, Personal Appearance, Posture, Gestures, Facial Expression, Eye Contact, Space Distancing 3. **Paralinguistic Cues:** Tone, Pitch, Volume, Speed (rate of speech), Pauses, Stress and Intonation.	12
V	**Reading and Writing Skills : Digital Communication** 1. **Reading and Understanding Digital Texts**: Skills for Analysing Digital Texts (connotative and denotative skills). 2. **Introduction to Digital Writing**: Types of Digital Writing, Website content, Blog Writing, Social Media Writing, SEO Writing, Review and Opinion Writing 3. Editing Digital Content, Digital Integrity and Ethics in Writing.	12
	Total Hours	**60**

Reference Books

1.	Rengasamy, P. Ed.(2012). Paths of Glory An Anthology of Biographies. Macmillan Publishers India Ltd.
2.	Yousafzai, M. (2013, July 12). Speech at the United Nations Youth Assembly. United Nations. https://www.un.org/en/events/malalayousafzaispeech
3.	A.P.J. Abdul Kalam.(2012). Ignited Minds - Unleashing the Power within India. Penguin Books.
4.	Mandela, N. (1994). Inaugural Address. In Long Walk to Freedom. Little, Brown and Company.
5.	Raymond Murphy. (2016). English Grammar in Use : A Self-study Reference and Practice Book for Intermediate Learners of English. Cambridge University Press.
6.	Kumar, S., & Lata, P. (2018). Communication Skills: A Workbook. Oxford University Press India.
7.	Mitra, B. K. (2012). Personality Development and Soft Skills (3rd ed.). Oxford University Press India.
8.	Butterfield, J. (2023). Written Communication: Soft Skills for a Digital Workplace (3rd ed.). Cengage India.

Web Resources (Swayam / NPTEL)

1.	https://onlinecourses.swayam2.ac.in/e-learning/preview/cec26_hs08
2.	https://onlinecourses.nptel.ac.in/noc26_hs111/preview

Course Code	Course Name	Category	Hours/Week	Credits
25BCC33C	Corporate Accounting - I	Core - V	6	4

Course Objectives

The course intends to cover

- Basic accounting transactions relating to shares and debentures.
- Preparation of final accounts of companies, and the valuation of shares and goodwill
- Accounting treatment of assets and liabilities during the liquidation process.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Remember the concepts related to issue of shares	K1
CLO2	Understand the provisions of companies Act under Redemption of Preference shares and Debentures	K2
CLO3	Apply the concept of final accounts and managerial remuneration	K3
CLO4	Examine the various methods of shares and goodwill of a company	K4
CLO5	Analyze the accounting of statements of liquidation	K4
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze		

CLO - PLO Mapping

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

Core - V: Corporate Accounting - I

Unit	Content	No. of Hours
I	**Share Capital:** Meaning - Types of shares - Issue of shares at Par, Premium and Discount - Forfeiture and Reissue of shares - Surrender of Shares - Right Issue - Meaning and concept of Bonus Issue. **Underwriting of Shares:** Meaning - Types of underwriting: Complete underwriting, Partial underwriting, and Firm underwriting - Underwriting commission.	18
II	**Redemption of Preference Shares:** Definition, legal provisions and Accounting Treatment. **Debentures:** Meaning - Definition - Issue of debentures at par, premium and discount. **Redemption of debentures:** Sinking Fund Method - Purchase of the debentures in the Open Market - Ex Interest and Cum Interest transactions.	18
III	**Final Accounts:** Introduction - Preparation of Final accounts as per schedule III of Companies Act 2013 - Profit and Loss Account and Balance Sheet (including problems with adjustments) - Profit available for Managerial remuneration.	18
IV	**Valuation of Goodwill:** Meaning - Needs - Circumstances of valuation of goodwill - factors influencing the valuation of goodwill - Methods of valuation: Average Profits Method, Super Profits Method and Capitalisation Method. **Valuation of shares:** Meaning - Needs - Methods of Valuation: Net Asset Value Method, Yield Method and Fair Value Method.	18
V	**Liquidation of Companies:** Overview - Statement of Affairs and Deficiency Accounts - Liquidator's Final Statement of Accounts.	18
	Total Hours	**90**
	Theory 20% & Problems 80%	
Text Books		
1	Jain.S.P, and Narang.K.L., (2022), Advanced Accountancy, Kalyani Publishers.	
2	Gupta R.L. and Radhaswamy M, (2021), Corporate Accounting, Sultan Chand & Co.	
3	Tulsian.P.C, (2018), Corporate Accounting, Sultan Chand & Co.	
Reference Books		
1	Reddy.T.S. and Murthy.A, (2022), Corporate Accounting, Margham Publications.	
2	Singol.A.K, and Sharma J.P., (2013), Corporate Accounts - I, Vayu Education of India.	
3	Arulanandam.M.A. & Raman.K.S. (2019), Advanced Accountancy (Vol.II), Himalaya Publishing house.	
Web Resources (Swayam/NPTEL)		
1	https://onlinecourses.swayam2.ac.in/cec24_mg11/preview	

Course Code	Course Name	Category	Hours / Week	Credits
25BCC34C	Company Law and Secretarial Practice	Core - VI	6	4

Course Objectives

The course intends to cover

- Formation of Companies and Appointment of Directors.
- Types of Winding up and its consequences
- The role of Company Secretary towards Company's statutory provisions, rules and regulations and types of meetings.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the procedure of company formation and required documents	K1 - K2
CLO2	Identify the roles, responsibilities, appointment and liabilities of corporate directors.	K3
CLO3	Expose various winding up procedure, regulations and formalities under law.	K3
CLO4	Examine the role and legal liability of a Company Secretary	K3
CLO5	Apply the procedure for conducting company meeting effectively	K3
K1 - Remember; **K2** - Understand; **K3-** Apply		

CLO - PLO Mapping

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

Core - VI: Company Law and Secretarial Practice

Unit	Content	No. of Hours
I	**Formation of Company:** Meaning - Promoters - their functions - Duties of Promoters. **Incorporation**: Meaning - Certificate of Incorporation. **Memorandum of Association:** Meaning - Purpose - Alteration of Memorandum -Doctrine of Ultravires. **Articles of Association:** Meaning - Forms - Contents -Alteration of Article - Relationship between Articles and Memorandum - Doctrine of Indoor Management - Exceptions to Doctrine of Indoor Management. **Prospectus**: Definitions - Contents - Deemed Prospectus - Misstatement in prospectus. **Kinds of Shares and Debentures.**	18
II	**Directors:** Appointment of Directors - Women directors, Independent directors - Qualification and Disqualification of Directors - Director's remuneration - Powers of Directors - Duties of Directors- Liabilities of Directors - Removal of Directors.	18
III	**Winding up:** Meaning, **Modes of Winding up**: Compulsory Winding up by the court - Voluntary Winding up - Types of Voluntary Winding up - Members Voluntary Winding up - Creditors Voluntary Winding up -Winding up subject to Supervision of the Court - Consequences of Winding up (General).	18
IV	**Company Secretary:** Meaning of secretary - Types - Positions - Qualities - Qualifications - Appointments- Powers - Rights - Duties - Liabilities of a Company Secretary - Role of a Company Secretary - Dismissals.	18
V	**Kinds of Company Meetings:** Board of Directors Meeting - Statutory Meeting - Annual General Meeting - Extra ordinary General Meeting - Duties of a Company Secretary to all the company meetings: Drafting of Correspondence relating to the Meetings - Notices - Agenda - Preparation of Chairman's Speech - Writing up of Minutes.	18
	Total Hours	**90**

Text Books	
1.	Kapoor.G.K. and Sanjay Dhamija, (2026), Company Law, (28th ed.), Taxmann Publications Private Limited, New Delhi.
2.	Kapoor.N.D. (2025), Elements of Company Law (Companies Act and Amendment up to 2020/2023), (32nd Revised ed.), Sultan Chand and Sons, New Delhi.
3.	Padma.T., and Rao. K.P.C., (2023), The Principles of Company Law, ALT Publications, Hyderabad.
Reference Books	
1.	Anil Kumar (2025), Company Law (14th ed.), Taxmann Publications Private Limited, New Delhi.
2.	Abdul Gafoor, P. M. S., & Thothadri, S. (2017), Company Law and Secretarial Practice (2nd Revised ed.), Vijay Nicole Imprints Limited.
Web Resources (Swayam / NPTEL)	
1.	https://onlinecourses.swayam2.ac.in/imb26_mg111/preview
2.	https://onlinecourses.swayam2.ac.in/e-learning/preview/ini25_lw20

Course Code	Course Name	Category	Hours / Week	Credits
25BCC35P	Data Analytics for Finance Lab	Core Lab - III	4	3

Core Lab - III: Data Analytics for Finance Lab

S.No.	List of Program	No. of Hours
1	Accounting Voucher Creation	5
2	Financial Statement Preparation Using Tally Prime	5
3	Basic Cloud-Based Financial workflow using Zoho Books	5
4	Data Cleaning and Transformation using Excel	5
5	Automated Invoice Generation using Excel	5
6	Data Visualization and Dashboard Creation using Tableau (Bar Chart, Histogram, Heatmaps)	5
7	Designing Sales Dashboards using Power BI	5
8	Creating KPI Cards, Bar Charts, And Slicers in Power BI	5
9	Performing Regression Analysis and Sales Forecasting using Tableau	5
10	Time Series Analysis for Financial Predictions using Power BI	5
11	Customer Segmentation Using Clustering Techniques in Power BI	5
12	Capstone Project - Group project: Developing a business intelligence solution for a company. (Final project presentations and feedback session only)	5
	Total Hours	**60**
Text Books		
1.	Foster Provost & Tom Fawcett, Data Science for Business, O'Reilly Media.	
2.	Cindi Howson, Successful Business Intelligence, McGraw-Hill.	
Web Resources (Swayam/NPTEL)		
1.	https://nptel.ac.in/courses/110106072	

Course Code	Course Name	Category	Hours/Week	Credits
25BCC36A	Python Programming	Allied - III	4	3

Course Objectives

The course intends to cover

- Fundamentals of Python Programming.
- Concept of Functions in Python.
- Knowledge of Lists, Tuples, Files and Directories.
- Dictionaries in python.
- Object-oriented programming, Graphical programming aspects of python with help of built in modules.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Remembering the concept of operators, data types, looping statements in Python programming.	K1
CLO2	Understanding the concepts of Input / Output operations	K2
CLO3	Applying the concept of functions	K3
CLO4	Analyzing the structures of list, tuples and maintaining dictionaries	K4
CLO5	Demonstrate significant experience with python program development environment	K4
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze		

CLO - PLO Mapping

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

Allied - III: Python Programming

Unit	Content	No. of Hours
I	**Basics of Python**: Basics Python - Variables - Executing Python from the command Line - Editing Python Files - Python Reserved Words - Basic Syntax- comments - Standard Data Types - Relational Operators - Logical Operators - Simple Input and Output.	12
II	**Control Statements:** Control Flow and Syntax - Indenting - if Statement - statements and expressions- string operations- Boolean Expressions -while Loop - break and continue - for Loop. LISTS: List-list slices - list methods - list parameters. TUPLES: Tuple assignment - Sets - Dictionaries	12
III	**Functions:** Definition - Passing parameters to a Function - Built-in functions- Variable Number of Arguments - Scope - Type Conversion- Passing Functions to a Function - Mapping Functions in a Dictionary - Foundations of Python for Machine Learning.	12
IV	**File Handling:** Data Streams - Access Modes Writing - Data to a File Reading - Data From a File - Additional File Methods - Handling IO Exceptions - Working with Directories. Introduction to SQ Lite and its use cases - Using the built - in SQ Lite 3 module in Python.	12
V	**Object Oriented Features:** Classes Principles of Object Orientation - Creating Classes - File Organization - Special Methods - Class Variables - Inheritance - Polymorphism.	12
Total Hours		**60**
Text Books		
1.	Mark Summerfield, Programming in Python 3: (2009), A Complete introduction to the Python Language, Addison-Wesley Professional,	
2.	Martin C. Brown, Python: (2001), The Complete Reference, McGraw-Hill.	
3.	E. Balagurusamy (2017), Problem Solving and Python Programming, McGraw-Hill, First Edition.	
Reference Books		
1.	Allen B. Downey, (2016), Think Python: How to Think Like a Computer Scientist, 2nd edition, Updated for Python 3, Shroff/O'Reilly Publishers.	
2.	Guido van Rossum and Fred L. Drake Jr, (2011), An Introduction to Python - Revised and updated for Python 3.2, Network Theory Ltd.	
3.	Wesley J Chun, (2012), Core Python Applications Programming‖, Prentice Hall,	
Web Resources (Swayam / NPTEL)		
1.	https://onlinecourses.swayam2.ac.in/cec24_cs01/course	
2.	https://onlinecourses.nptel.ac.in/noc24_cs57/preview	

Course Code	Course Name	Category	Hours/Week	Credits
25BCC37P	Python Programming Lab	SEC Lab - I	2	2

SEC Lab - I: Python Programming Lab

S.No	List of Programs	No. of Hours
1	Program to convert the given temperature from Fahrenheit to Celsius and vice versa depending upon user's choice.	4
2	Program to calculate total marks, percentage and grade of a student. Marks obtained in each of the five subjects are to be input by user. Assign grades according to the following criteria: Grade A: Percentage >=80 Grade B: Percentage >=70 and 80 Grade C: Percentage >=60 and <70 Grade D: Percentage >=40 and <60 Grade E: Percentage < 40	4
3	Program, to find the area of rectangle, square, circle and triangle by accepting suitable input parameters from user.	3
4	Write a Python script that prints prime numbers less than 20.	4
5	Program to find factorial of the given number using recursive function.	4
6	Write a Python program to count the number of even and odd numbers from array of N numbers.	4
7	Write a Python class to reverse a string word by word.	3
8	Create a simple calculator to do all the arithmetic operations.	4
	Total Hours	**30**
Text Books		
1	Charles Dierbach,(2015), Introduction to Computer Science using Python - A Computational Problem-Solving Focus, Wiley India Edition.	
2	Wesley J. Chun, (2016), Core Python Applications Programming, 3rd Edition, Pearson Education.	
Reference Books		
1	Mark Lutz, (2018), Learning Python Powerful Object-Oriented Programming, O'reilly Media, 25th Edition.	
2	Timothy A. Budd, (2011, Exploring Python, Tata MCGraw Hill Education Private Limited, 1st Edition.	
3	John Zelle, (2013), Python Programming: An Introduction to Computer Science", Second edition, Course Technology Cengage Learning Publications, ISBN 978- 1590282410.	
4	Michel Dawson, (2013), Python Programming for Absolute Beginners, Third Edition, Course Technology,Cengage Learning Publications, ISBN 978-1435455009	
Web Resources (Swayam / NPTEL)		
1	https://onlinecourses.swayam2.ac.in/cec22_cs20/preview	
2	https://onlinecourses.swayam2.ac.in/aic20_sp33/preview	
3	https://onlinecourses.nptel.ac.in/noc24_cs45/preview	

Course Code	Course Name	Category	Hours/Week	Credits

25IKS3FC	**Indian Knowledge Systems (IKS)**	**FC - III**	**-**	**2**

Unit	Content
1	**Indian Knowledge Systems (IKS) Basic Concepts** - Introduction - Journey of Indian Culture and Civilization - Hindu Philosophical System - Contribution of Indian Knowledge System in Science and Arts - Indian Knowledge System and Way of Life - The Implicit Concepts in Indian Knowledge System - Social Viewpoint in Indian Knowledge system - Idea of Vasudhaiva Kutumbakam.
2	**Indian Culture, Art & Architecture** - Introduction - Concept of Culture - Culture and Heritage - General Characteristics of Culture - Indian Culture - Indian Culture during the Modern and Contemporary Period -The Factors of Unity in Diversity - Aspects of Indian culture - Indian Architecture - Architecture of Tamil Nadu.
3	**Vedic Mathematics** - Introduction - History of Vedic Mathematics - Addition - Subtraction - Base Method - Sub Base Method - Multiplication by numbers consisting of all 9s - Division - Special Methods of Division - Straight Division.
4	**Science and Technology in Indian Knowledge System** - Introduction - The Indian S & T Heritage - Metals and Metalworking Technology - Lost wax casting of Idols and Artefacts - Literary sources for Science and Technology - Technology in Ancient India - Significant Science and Technology Discovery in Ancient India - Council of Scientific and Industrial Research - Animal Science in Ancient India - Biodiversity and folk traditions.
5	**History of Trade and Commerce in Ancient India** - Introduction - Indigenous Banking System - Rise of Intermediaries - Transport - Major Trade Centres - Major Exports and Imports - Position of Indian Subcontinent in World Economy.
6	**Indigenous Agriculture in IKS** - Introduction - History of Indian Agriculture - Indigenous Knowledge - Organic Farming and Natural Fertilization - Mixed Cropping and Crop Rotation - Ecological and Socioeconomic Impacts of Indigenous Farming - Challenges and Future Directions.
7	**Traditional Water Management Systems of India** - Introduction - Traditional Water Management Systems - Northern Region - North Western Region - North Eastern Region - Central Indian Region - Southern Indian Region.
8	**Traditional Foods and Festival of India** - History - Introduction - Foods Consumed in Different Regions of India - Eating Styles of India - Traditional Equipment's used for Cooking - Changes in Consumption of Traditional Foods - Traditional Foods/Modern Functions - The Future of Traditional Foods - Traditional Festivals of India.
9	**Sports in India-From Ancient Period to Modern Period** - Introduction - Indus Valley Civilization - Early Hindu Period/ Epic Period - Traditional Indoor and Outdoor Games - British Period - Post Independence - Modern Period.
10	**Nobel Laureates of Indian Origin & Inspiring Scientists of India and their Contributions** - History of the Nobel Prize - Nobel Prize Insignia - Indian Nobel Prize winners and their Biography - Inspiring Scientists and their Contributions.
Reference Resources	
1.	https://www.education.gov.in/shikshakparv/docs/background_note_Stimulating_Indian_Knowledge_Systems_Arts_Culture.pdf
2.	Singh, R. K., King, C. A., & Barrett, D. A. (2010). Traditional ecological knowledge and agricultural sustainability in India. Indian Journal of Traditional Knowledge, 9(2), 231- 243

Components for Internal Assessment and Distribution of Marks for CIA and ESE (Theory)

Max Marks	Marks for		Components for CIA						
100	CIA	ESE	CIA		Model		Attendance	Active Engagement	Total
	25	75	Actual	Weightage	Actual	Weightage	5	5	25
			50	**5**	75	**10**			

Question Paper Pattern

Component	Duration in Hours	Section A			Section B			Section C			Total
		Type of Question	No. of Questions	Marks	Type of Question	No. of Questions	Marks	Type of Question	No. of Questions	Marks	
CIA	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 (Lab)

Max Marks	Marks for		Components for CIA						
	CIA	ESE	Test		Model		Experiments / Programs	Observation	Total
100	40	60	Actual	Weightage	Actual	Weightage	Marks	5	40
			50	**10**	60	**15**	**10**		

Examination Pattern

Component	Duration in Hours	Marks			Weightage
		Practical Exam	Record	Total Marks	
Test	2	50	-	**50**	10
Model	3	60	-	**60**	15
Experiments Completed	-	-	-	**10**	10
Observation Note	-	-	-	**05**	05
				Total Marks - CIA	**40**
ESE	3	50	10	-	**60**

Components for Internal Assessment and Distribution of Marks for CIA (Foundation Course -Theory)*

Max Marks	Marks for		Components for CIA				
50	CIA	ESE	CIA		Model		Total
	50	-	Actual	Weightage	Actual	Weightage	50
			50	25	50	25	

*FC-III: Indian Knowledge Systems(IKS) - A self-study course with open book assessment.

Question Paper Pattern

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

Components for and Distribution of Marks for ESE (Theory)
Ability Enhancement Compulsory Courses (AECC)
&
Question Paper Pattern

Duration in Hours	Mode of Exam	Type of Questions	No. of Questions	Marks
2	Online	MCQ	50	50x1=50

Components of Internship (Internal Assessment Only)

Components	Marks
Submission of Internship Report	20
Performance in viva-voce	30
Total Marks	**50**

***Certification of Completion is Mandatory for the award of Internal Marks and to avail the credits**

Semester - 4

Semester - 4									
Course Code	**Part**	**Course Category**	**Course Name**	**Hours /Week**	**Examination**				**Credits**
					Duration in Hours	**Max Marks**			
						CIA	**ESE**	**Total**	
25TAM41L	I	Language - I	Tamil - IV	4	3	25	75	100	3
25HIN41L	I		Hindi - IV						
25MAL41L	I		Malayalam - IV						
25FRE41L	I		French - IV						
25ENG42L	II	Language - II	English - IV	4	3	25	75	100	3
25BCC43C	III	Core - VII	Corporate Accounting - II	6	3	25	75	100	4
25BCC44P	III	Core Lab - IV	Database Management System Lab	4	3	40	60	100	2
25BCC45P	III	Core Lab - V	Advanced Applications of Data Analytics in Fintech Lab	4	3	40	60	100	3
25BCC46A	III	Allied - IV	Business Mathematics and Statistics	4	3	25	75	100	3
25BCC47P	III	SEC Lab - II	Computer Applications: GST with Tally - I Lab	2	3	40	60	100	2
25QUA4AE	IV	AECC - IV	Quantitative Aptitude	2	2	-	50	50	2
25EXC4LA	IV	Extra-Curricular and Co-Curricular	Liberal Arts	-	-	50	-	50	2
			Total	**30**				**800**	**24**

Course Code	Course Name	Category	Hours / Week	Credits
25TAM41L	Tamil - IV	Language - I	4	3

Course Objectives

The Course intends to cover

- தமிழ்நாடு அரசுப் பணியாளர் தேர்வாணையம் நடத்தும் போட்டித் தேர்வுகளை எதிர்கொண்டு வேலைவாய்ப்பினைப் பெறும் வகையில் மாணவர்களைத் தயார்படுத்துதல்.
- நீதி இலக்கியங்கள் மற்றும் ஔவையார் பாடல்களின் வழியாக வாழ்வியலுக்குத் தேவையான அறநெறிகளையும், ஒழுக்க விழுமியங்களையும் மாணவர்களுக்கு அறிமுகப்படுத்துதல்.
- தமிழுக்குத் தொண்டாற்றிய சான்றோர்கள், கவிஞர்கள் மற்றும் விடுதலைப் போராட்ட வீரர்களின் இலக்கிய, சமூகப் பங்களிப்புகளை எடுத்துரைத்தல்.
- அடிப்படைத் தமிழ் இலக்கண விதிகளையும் சொல் அமைப்புகளையும் அறிமுகம் செய்து, பிழையற்ற மொழிப் பயன்பாட்டை உருவாக்குதல்.
- திணை மற்றும் பால் அடிப்படையிலான சொற்பயன்பாட்டையும், மரபுசார்ந்த வினைகளையும் கற்பித்து, சரியான தொடரமைப்பை உருவாக்க வழிகாட்டுதல்.
- வாசிப்புப் புரிதலை மேம்படுத்துதல், மரபுசார் தொடர்களின் பொருளை விளக்குதல் மற்றும் எளிய ஆங்கிலச் சொற்களைத் தமிழாக்கம் செய்யப் பயிற்றுவித்தல்.

Course Learning Outcomes

On the successful completion of the course,

CLO	CLO Statements	Knowledge Level
CLO1	மாணவர்கள் பதினெண்கீழ்க்கணக்கு நூல்களின் வாழ்வியல் உண்மைகளைப் புரிந்து, சமுதாயத்தில் ஒழுக்கத்தோடும் நற்பண்புகளோடும் வாழும் நெறியைக் கற்றுக் கொண்டு பின்பற்றுவர்.	K2
CLO2	மாணவர்கள் தமிழ் அறிஞர்களின் ஆளுமை மிக்க வாழ்வியல் நெறிகளை உணர்ந்து, மொழிப்பற்று, தேசப்பற்று மற்றும் படைப்பாற்றல் மிக்கவர்களாக செயல்படுவர்.	K2
CLO3	மாணவர்கள் எழுத்து மற்றும் சொல் வேறுபாடுகளைப் புரிந்து, பிழையின்றி எழுதவும் பேசவும் கற்றுக்கொள்வர்	K3
CLO4	மாணவர்கள் வாக்கியங்களில் திணை வழு, பால் வழு ஆகியவற்றைத் தவிர்த்து, மரபுச் சொற்களைச் சரியான சூழலில் கையாளும் ஆளுமை மிக்கவர்களாகத் திகழ்வர்.	K3
CLO5	மாணவர்கள் பத்திகளைப் படித்துப் புரிந்து விடையளிப்பர். பழமொழிகளின் பொருளை உணர்ந்து, அன்றாடப் பிறமொழிச் சொற்களுக்கு இணையான தமிழ்ச் சொற்களைக் கையாள கற்றுக்கொள்வர்.	K3
K1 - Remember; **K2** - Understand; **K3** - Apply		

Part - I: Language - I தமிழ் – IV

Unit	Content	No. of Hours
I	**இலக்கிய வரலாறு** 1. நாலடியார் 2. பழமொழி நானூறு 3. திரிகடுகம் 4. இன்னா நாற்பது 5. சிறுபஞ்சமூலம் 6. ஔவையார் பாடல்கள்	12
II	**தமிழ் அறிஞர்களும், தமிழ்த்தொண்டும்** 1. உ.வே.சாமிநாத ஐயர் 2. வீரமாமுனிவர் 3. டி.கே.சிதம்பரனாதர் 4. கண்ணதாசன் 5. வேலுநாச்சியார் 6. நாமக்கல் கவிஞர்	12
III	**இலக்கணம்** 1. குறில், நெடில் வேறுபாடு 2. சுட்டெழுத்துக்கள் 3. வினா எழுத்துக்கள் 4. இனவெழுத்துக்கள் 5. ஒருமைப் பன்மை அறிதல் 6. ஓரெழுத்து ஒருமொழி	12
IV	**திணை மரபு மற்றும் பால் மரபு** 1. உயர்திணை 2. அஃறிணை 3. ஆண்பால் 4. பெண்பால் 5. பலர்பால் 6. வினைமரபு	12
V	**வாசித்தல், புரிந்து கொள்ளும் திறன் மற்றும் எளிய மொழி பெயர்ப்பு** **வாசித்தல்**: கொடுக்கப்பட்ட பத்தியை வாசித்து கேட்கப்பட்ட வினாக்களுக்கு சரியான விடையைத் தேர்ந்தெடுத்தல். **புரிந்துகொள்ளும் திறன்:** உவமைத் தொடரின் பொருளறிதல், மரபுத்தொடரின் பொருளறிதல், பழமொழிகள் பொருளறிதல். **எளிய மொழி பெயர்ப்பு:** ஆங்கிலம் மற்றும் பிறமொழிச் சொற்களுக்கு இணையான தமிழ்ச் சொற்கள் அறிதல், பயன்பாட்டில் உள்ள ஆங்கிலச் சொற்களை மொழிபெயர்த்தல்.	12
	Total Hours	**60**

Reference Books	
1	வரதராசன் மு. (2021, 34-வது பதிப்பு), தமிழ் இலக்கிய வரலாறு, சாகித்திய அகாதமி பதிப்பு.
2	டாக்டர் தமிழண்ணல், (2010, 26-ம் பதிப்பு), புதிய நோக்கில் தமிழ் இலக்கிய வரலாறு, மீனாட்சி புத்தக நிலையம்.
3	பேரா. முனைவர் பாக்கியமேரி, (2022, 6-ம் பதிப்பு), வகைமை நோக்கில் தமிழ் இலக்கிய வரலாறு, நியூசெஞ்சுரி புக் ஹவுஸ்(பி). லிட்.
4	பாலசுப்பிரமணியம் சி. (2016, 27-ம் பதிப்பு), தமிழ் இலக்கிய வரலாறு, சாரதா பதிப்பகம்.
5	டாக்டர் பூவண்ணன், (2019, முதல் பதிப்பு), தமிழ் இலக்கிய வரலாறு, வர்த்தமான் பதிப்பகம்
6	பேராசிரியர்.விமலானந்தம் மது.ச. (2017, முதல் பதிப்பு), தமிழ் இலக்கிய வரலாறு, பாரி நிலையம்
7	விஜயராகவன், முனைவர் கண்ணன் கு. (2018, முதல் பதிப்பு), தமிழ் இலக்கியம் இலக்கணம் வரலாறு, பாவை பப்ளிக்கேஷன்.
8	முனைவர் இராசா கி. (2019, 4-ம் பதிப்பு), தமிழ் இலக்கிய வரலாறு, நியூ செஞ்சுரி புக் ஹவுஸ் (பி). லிட்.
9	முனைவர் அருணாச்சலம் மு. (2017 6-ம் பதிப்பு), தமிழ் இலக்கிய வரலாறு, அருண் பதிப்பகம்.
10	குமரன் கோ (2010, , முதல் பதிப்பு), தமிழ் இலக்கணம் எளிய அறிமுகம், சந்தியா பதிப்பகம்.

Course Code	Course Name	Category	Hours / Week	Credits
25HIN41L	Hindi - IV	Language - I	4	3

Course Objectives

The course intends to cover

- Contemporary drama contents of Hindi literature.
- Novels and its techniques.
- Litigation messages in Hindi and news on speech techniques
- Article writing and Translation of text

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the text styles and grammatical elements	K1, K2
CLO2	Develop an interest in the appreciation of short stories	K3
CLO3	Use Lokokti and Muhavare appropriately in Hindi communication.	K3
CLO4	Develop essays on general topics in Hindi.	K3
CLO5	Translate passages between Hindi and English.	K3
K1 - Remember; **K2 -** Understand; **K3 -** Develop, Use, Translate		

Part - I: Language - I Hindi - IV

Unit	Content	No. of Hours
I	Drama: Dhuvasaminy By Jayashankar Parsad	12
II	Novel - Nirmala - Premchand	12
III	Lokkothi & Muhavare - Naveen Hindi Vyakaran (Selected Lokkokthi -10 & Muhavare-10)	12
IV	General Essay :Aadarsh Nibandh	12
V	Translation : Hindi-English Only Anuvadh Abhyas - III (16-30 Lessons Only)	12
	Total Hours	**60**

Text Books	
1	Jayashankar Prasad(2015), Dhuvasaminy - Drama, Dakshin Bharath Hindi Prachar Sabha, Chennai.
2	Premchand (2015), Nirmala – Novel - Rajkamal Prakashan,1B Nethaji Subash Marg, New Delhi.
Reference Books	
1.	Rajnath Sharma , Hindi Sahithya Ka Saral Ithihaas by, Vinod Pustak Mandir, Agra.
2	Kavya Pradeep Rambadri Shukla, Hindi Bhavan, 36, Tagore Town, Allahabad.

Course Code	Course Name	Category	Hours / Week	Credits
25MAL41L	Malayalam - IV	Language - I	4	3

Course Objectives

The course intends to cover

- Knowledge of contemporary drama contents of Malayalam literature
- Screen play and its techniques.
- Drama and express criticism about it and the ability to express social thoughts will improve
- Litigation messages in Malayalam and news on speech techniques
- Article writing and creative skills.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the themes and characters of the screenplay.	K1, K2
CLO2	Relate the narrative elements to the development of the screenplay.	K2
CLO3	Create interest in art literature courses	K3
CLO4	Apply dramatic techniques to interpret the conflicts in the play.	K3
CLO5	Present the thematic significance of the play through its dramatic elements.	K3
K1 - Remember; **K2** - Understand; **K3** - Relate, Create, Apply, Present		

Part - I: Language - I Malayalam - IV

Unit	Content	No. of Hours
I	Screen Play - Perumthachan	12
II	Screenplay - Perumthachan	12
III	Drama - Saketham	12
IV	Drama - Saketham	12
V	Drama - Saaketham	12
	Total Hours	**60**

Text Books

1	Perumthachan - M.T.VasudevanNair,DC Books
2	Saketham - C.N.SreekandanNair,DC Books.

Reference Books

1	Malayala Nataka Sahithya Charithram. G Sankara Pillai (Kerala Sahithya Akademi, Trissur)
2	Malayala NatakaSahithya Charithram, Vayala Vasudevan Pillai (Kerala SahithyaAkademi Thrissur).
3	Natakam- Oru Patanam (C.J. SmarakaPrasanga Samithi, Koothattukulam)
4	Natakaroopacharcha, Kattumadam Narayanan (NBS, Kottayam)
5.	Chalachithra sameeksha - Vijayakrishanan.
6.	Cinemayude Paadangal Visakalanavum Veekshanavum - Jose-K.Manual.

Course Code	Course Name	Category	Hours / Week	Credits
25FRE41L	French - IV	Language - I	4	3

Course Objective

To communicate during easy or habitual tasks requiring a basic and direct information exchange on familiar subjects to use simple words to describe his or her surroundings and communicate immediate needs

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Comprehend the grammatical structures in various genres	K1, K2
CLO2	Understand the text styles and poetical elements	K2
CLO3	Develop an interest in the appreciation of literature	K3
CLO4	Discuss and respond to content of a reading passage	K3
CLO5	Apply vocabulary and grammatical structures	K3
K1 - Remember; **K2 -** Comprehend, Understand; **K3 -** Develop, Discuss, Apply		

Part - I: Language - I : French - IV

Unit	Content	No. of Hours
I	Etape 5 (Lecons 1 - 3)	12
II	Etape 6 (Lecons 1 - 3)	12
III	Etape 7 - Leçons 1 - 2	12
IV	Etape 7 - Leçon 3 Etape 8 - Leçon 1	12
V	Etape 8 - Leçons 2 - 3	12
Etapes 5 to 8, Pages 63 to 114		
	Total Hours	**60**
Text Book		
1.	Himber, C., Brillant, C., & Erlich, S. (n.d.). Adomania 2: Méthode de français. Hachette FLE, GOYAL Publishers and Distributors Pvt Ltd, New Delhi.	
Reference Books		
1.	Loiseau, Y., & Mérieux, R. (n.d.). Latitudes 1. French and European Publications, Goyal publishers and distributors Pvt Ltd, New Delhi	
Web Resources (NPTEL/Swayam)		
1.	https://swayam.gov.in/nd2_cec19_lg04/preview	

Course Code	Course Name	Category	Hours / Week	Credits
25ENG42L	English - IV	Language - II	4	3

Course Objectives

The course intends to cover

- The Shakespearean soliloquies through understanding the psychological phenomena and morality of the characters.
- The social issues, values and justice through themes, characters, conflicts in one-act plays.
- The essential grammar rules, sentence structures, punctuation, and its usage in English.
- Vocabulary skills, sentence ordering abilities, and core professional writing skills for career readiness.
- Reading comprehension and effective writing skills through understanding, organizing, summarizing, and expressing ideas clearly.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the psychology of the characters by reflecting on emotions and well-being based on the soliloquies.	K1, K2
CLO2	Imbibe human values like social justice, gender equality and empathy in real - life.	K2
CLO3	Construct grammatically correct sentences using appropriate grammatical structures, capitalization and punctuation.	K3
CLO4	Compose effective career communication using appropriate vocabulary, language conventions and professional correspondence skills.	K3
CLO5	Prepare coherent written responses by organising, summarising and presenting information from diverse texts.	K3
K1 - Remember; **K2** - Understand, Imbibe; **K3** - Construct, Compose, Prepare		

Part II: Language II - English – IV

Unit	Content	No. of Hours
I	**Shakespearean Soliloquies - Human Conflicts and well-being** 1.1. All The World's A Stage by Jacques in As You Like It 1.2. To Be or Not To Be by Hamlet in Hamlet 1.3. The Raven Himself is Hoarse by Lady Macbeth in Macbeth	12
II	**One Act Play - Social Justice** 2.1. Trifles - Susan Glaspell 2.2. Mine Eyes Have Seen - Alice Dunbar-Nelson 2.3. They That Sit in Darkness - Mary Burrill	12
III	**Grammar** 3.1. Infinitives, Concord, Gerunds, Participles, Regular and Irregular Verbs, Question Tags 3.2. Phrases and Clauses, Synthesis of Sentences 3.3. Simple, Compound and Complex Sentences 3.4. Capitalization and Punctuations.	12
IV	**English Language and Career Communication Skills** 4.1. **Language and Vocabulary Skills:** British and American English, Figures of speech, Jumbled sentences, Rearranging the right order of sentences, Making queries, Inferences, Idioms & Phrases, Phrasal verbs. 4.2. **Professional Correspondence for Careers:** Job Application Letters, Covering Letters, CV/Resume Preparation.	12
V	**Reading and Writing Comprehension** 5.1. **Reading Comprehension:** Introduction to Reading Strategies - Comprehending various types of texts and question - Strong question, Weak question, Match the following, Multiple choice, Identifying information, Sentence Completion**,** Ascertainment of facts 5.2**. Writing Comprehension:** Understanding the Topic - Organising Ideas - Sentence and Paragraph Construction - Types of Paragraphs - Description, Sequence, Comparison and Contrast, Cause and Effect, Persuasion, Argumentation - Writing opinion pieces on travel, food, film and book reviews - Summarizing Information.	12
	Total Hours	**60**

Unit Mapping with SDGs

Units	Primary SDG
Unit - I: Shakespearian Soliloquies - Human Conflicts and well-being	SDGs 3 , 4
Unit - II: One Act Play - Social Justice	SDGs 5 , 16
Unit - V: Reading and Writing Comprehension	SDG 4

Reference Books

1.	Burrill, M., (1918), They That Sit in Darkness, 1st ed., The Birth Control Review.
2.	Dunbar -Nelson, A., (1918), Mine Eyes Have Seen, 1st ed., Mint Editions.
3.	Glaspell, S., (1916), Trifles, 1st ed., Gyan Publishing House.
4.	Kumar, S., & Pushp Lata, (2011), English Language and Communication Skills for Engineers, 1st ed., Oxford University Press.
5.	Kumar, S., & Pushp Lata., (2015), Communication Skills: A Workbook, 2nd ed., Oxford University Press.
6.	Shakespeare, W., (1998), The Complete Works of William Shakespeare, 1st ed., Wordsworth Editions.
7.	Wren, P. C., & Martin, H., (2016), High School English Grammar and Composition, 36th ed., S. Chand Publishing.

Web Resources (Swayam / NPTEL)

1.	https://onlinecourses.swayam2.ac.in/e-learning/preview/cec24_lg01

Course Code	Course Name	Category	Hours / Week	Credits
25BCC43C	Corporate Accounting - II	Core - VII	6	4

Course Objectives

The course intends to cover

- Accounting procedures for amalgamation, absorption and external reconstruction, methods of purchase consideration and AI-applications along with ethical practices and Indian values in corporate restructuring.
- Accounting treatment for alteration of share capital and internal reconstruction with ethical practices for sustainable capital restructuring.
- Preparation of financial statements of banking companies with schedules.
- Holding and subsidiary companies, legal requirements and preparation of consolidated financial statements.
- Double account system, accounting standards and financial reporting practices with awareness of AI applications, green washing and sustainable financial reporting.

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Understand the accounting treatment for amalgamation, absorption and external reconstruction with AI applications and ethical practices.	K1, K2
CLO2	Alter the share capital for internal reconstruction.	K3
CLO3	Prepare financial statements of banking companies with relevant schedules for reporting advances, investments and non-performing assets.	K3
CLO4	Prepare consolidated balance sheets of holding and subsidiary companies.	K3
CLO5	Prepare financial statements under the double account system and apply relevant accounting standards for sustainable financial reporting.	K3
K1 - Remember; **K2** - Understand; **K3** -Alter**,** Prepare.		

CLO - PLO Mapping

CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5	Primary SDG
CLO1	2	2	2	2	3	SDG 8
CLO2	3	3	3	3	3	SDG 8
CLO3	2	3	2	2	2	-
CLO4	2	2	2	2	2	-
CLO5	3	3	2	2	3	SDG 12
3 - Substantial (high)		**2** - Moderate (medium)			**1** - Slight (low)	

Core -VII: Corporate Accounting – II

Unit	Content	No. of Hours
I	**Amalgamation, Absorption and External Reconstruction:**Concepts, Legal formalities and accounting treatment. **Purchase Consideration**: Lump sum method, Net assets method, Net payment method, Intrinsic value method. Types of Amalgamation (Excluding inter-company holdings) - Absorption - External Reconstruction - Difference between Amalgamation, Absorption and External Reconstruction - AI applications in financial analysis and valuation - Ethical practices and Indian values in corporate restructuring.	18
II	**Alteration of Share Capital and Internal Reconstruction:**Meaning, Different kinds of Alteration of share capital and the necessary accounting entries - Modes of Alteration - Internal Reconstruction - Conversion of stock - Increase and Decrease of capital - Reserve Liability - Capital Restructuring for Sustainable Growth - Ethical consideration in protecting shareholder interests.	18
III	**Accounting of Banking Companies:**Introduction- Business of Banking Companies - Preparation of Profit and Loss account and Balance sheet with relevant schedules (new format only) - Rebate on bills discounted - Classification of Advances - Classification of Investments - Non-Performing Assets.	18
IV	**Holding Company:** Meaning and definition of Holding and Subsidiary company - Legal Requirements relating to Presentation of Accounts - Preparation of Consolidated Balance sheet (Excluding Inter-Company Holdings).	18
V	**Double Account System & Indian Accounting Standards:**Statement of Accounts for Electricity Companies - Treatment of Repairs and Renewals - Indian Accounting Standards - Financial reporting practice - AI Applications in Financial Reporting - Green washing and Sustainable Financial Reporting.	18
	Total Hours	**90**

Unit mapping with SDGs

Units	Primary SDG
Unit I: Amalgamation, Absorption & External Reconstruction	SDG 8
Unit II: Capital Restructuring for Sustainable Growth	SDG 8
Unit V: Green washing and Sustainable Financial Reporting	SDG 12

Text Books

1.	Jain, S. P., & Narang, K. L. Agrawal Simmi, Sehgal Monik, (2025), Advanced Accountancy: Corporate Accounting Vol. II, 24th ed., Kalyani Publishers.
2.	Raman, K. S., & Arulanandam, M. A., (2023), Advanced Accountancy, Vol. II, 7th ed., Himalaya Publishing House.
3.	Reddy, T. S., & Murthy, A., (2023), Corporate Accounting, Vol. II, Margham Publishers.
4.	Shukla, M. C., Grewal, T. S., & Gupta, S. C, (2017), Advanced Accounts Vol. II, 19th ed., Sultan Chand & Sons.
5.	Gupta, R. L., & Radhaswamy, M., (2015), Advanced Accountancy Vol. II, Sultan Chand & Sons.

Reference Books	
1.	Goyal, B. K., (2024), Corporate Accounting, 4th ed., Taxmann Publications.
2.	Kumar, A., Kumar, R., & Mariyappa, B., (2017), Advanced Corporate Accounting, Himalaya Publishing House.
3.	Athma, P. & Rajyalaxmi, N., (2016), Corporate Accounting, Himalaya Publishing House.
Web Resources (Swayam / NPTEL/Others)	
1.	https://onlinecourses.swayam2.ac.in/e-learning/preview/cec24_mg11
2.	https://onlinecourses.nptel.ac.in/e-learning/preview/noc25_mg69
3.	https://www.eicta.iitk.ac.in/knowledge-hub/artificial-intelligence/ai-in-finance
4.	https://corporatefinanceinstitute.com/resources/fpa/ai-for-financial-analysis/
5.	https://www.ijnrd.org/papers/IJNRD2512003.pdf
6.	https://www.mdpi.com/2071-1050/15/2/1481

Core Lab - IV: Database Management System Lab

Course Code	Course Name	Category	Hours/Week	Credits
25BCC44P	Database Management System Lab	Core Lab - IV	4	2

<table>
<tr><th>Unit</th><th>Content</th><th>No. of Hours</th></tr>
<tr><td>I</td><td>
Create a table “Company” with the following fields and insert the values for 10 employees.
<table>
<tr><th>Field Name</th><th>Field Type</th><th>Field Size</th><th>Description</th></tr>
<tr><td>CompanyID</td><td>Varchar</td><td>10</td><td>Primary Key</td></tr>
<tr><td>CompanyName</td><td>Varchar</td><td>15</td><td>Not Null</td></tr>
<tr><td>Proprietor</td><td>Varchar</td><td>15</td><td>_</td></tr>
<tr><td>Address</td><td>Varchar</td><td>20</td><td>_</td></tr>
<tr><td>SupplierName</td><td>Varchar</td><td>15</td><td>–</td></tr>
<tr><td>No_of_Employees</td><td>Number</td><td>6</td><td>_</td></tr>
<tr><td>GP_percent</td><td>Number(6,2)</td><td>6 with 2 decimal places</td><td>_</td></tr>
</table>
Perform the following queries.
a) Display all the records of the company which are in the ascending order of GP percent.
b) Display the name of the company whose supplier name is ‘Telco’.
c) Display the details of the company whose GP percent is greater than 20 and order by GP Percent.
d) Display the detail of the company having the employee ranging from 300 to 1000.
e) Display the name of the company whose supplier is the same as the Tata’s.
</td><td>8</td></tr>
<tr><td>II</td><td>
Create a table “Employee” with the following fields and insert the values.
<table>
<tr><th>Field Name</th><th>Field Type</th><th>Field Size</th><th>Description</th></tr>
<tr><td>Employee_Code</td><td>Number</td><td>6</td><td>Primary Key</td></tr>
<tr><td>Employee_Name</td><td>Varchar</td><td>15</td><td>Not Null</td></tr>
<tr><td>Address</td><td>Varchar</td><td>20</td><td>_</td></tr>
<tr><td>Designation</td><td>Varchar</td><td>15</td><td>Not Null</td></tr>
<tr><td>Grade</td><td>Varchar</td><td>1</td><td>Not Null</td></tr>
<tr><td>Date_of_Joining</td><td>Date</td><td>-</td><td>–</td></tr>
</table>
Perform the following queries:
a) Display the name of the employee whose salary is greater than Rs.10,000
b) Display the details of employees in ascending order according to Employee Code.
c) Display the total salary of the employees whose grade is “A”.
d) Display the details of the employee earning the highest salary.
e) Display the names of the employees who earn more than ‘Ravi’.
</td><td>8</td></tr>
</table>

<table>
<tr><th>Unit</th><th>Content</th><th>No. of Hours</th></tr>
<tr><td>III</td><td>
Create a table “Product” with the following fields and insert the values
<table>
<tr><th>Field Name</th><th>Field Type</th><th>Field Size</th><th>Description</th></tr>
<tr><td>Product_No</td><td>Number</td><td>6</td><td>Primary Key</td></tr>
<tr><td>Product_Name</td><td>Varchar</td><td>15</td><td>Not Null</td></tr>
<tr><td>Unit_of_Measure</td><td>Varchar</td><td>15</td><td>_</td></tr>
<tr><td>Unit_price</td><td>Number(6,2)</td><td>6 with 2 decimal places</td><td>–</td></tr>
<tr><td>Quantity</td><td>Number(6,2)</td><td>6 with 2 decimal places</td><td>–</td></tr>
<tr><td>Total_Amount</td><td>Number(6,2)</td><td>6 with 2 decimal places</td><td>–</td></tr>
</table>
Perform the following queries:
a) Using update statements calculate the total amount and then select the record.
b) Select the records whose unit of measure is ‘Kg’;.
c) Select the records whose quantity is greater than 10 and less than or equal to 20.
d) Calculate the entire total amount by using sum operation.
e) Calculate the number of records whose unit price is greater than 50 with count operation.
</td><td>8</td></tr>
<tr><td>IV</td><td>
Create a table Student with the following fields and insert the values
<table>
<tr><th>Field Name</th><th>Field Type</th><th>Field Size</th><th>Description</th></tr>
<tr><td>RollNo</td><td>Varchar</td><td>10</td><td>Primary Key</td></tr>
<tr><td>StudentName</td><td>Varchar</td><td>15</td><td>Not Null</td></tr>
<tr><td>Gender</td><td>Varchar</td><td>6</td><td>Check (M/F)</td></tr>
<tr><td>Department Name</td><td>Varchar</td><td>15</td><td>_</td></tr>
<tr><td>Address</td><td>Varchar</td><td>25</td><td>_</td></tr>
<tr><td>Percentage</td><td>Number(4,2)</td><td>4 with 2 decimal places</td><td>_</td></tr>
</table>
Perform the following queries:
a) Calculate the average percentage of students.
b) Display the names of the students whose percentage is greater than 80.
c) Display the details of the student who got the highest percentage.
d) Display the details of the students whose percentage is between 50 and 70.
e) Display the details of the students whose percentage is greater than the percentage of the rollno=12CA01
</td><td>8</td></tr>
<tr><td>V</td><td>
Create a Table Publisher and Book with the following fields
<table>
<tr><th>Field Name</th><th>Field Type</th><th>Field Size</th><th>Description</th></tr>
<tr><td>Publisher Code</td><td>Varchar</td><td>5</td><td>Primary Key</td></tr>
<tr><td>Publisher Name</td><td>Varchar</td><td>10</td><td>Not Null</td></tr>
<tr><td>Publisher city</td><td>Varchar</td><td>12</td><td>_</td></tr>
<tr><td>Publisher State</td><td>Varchar</td><td>10</td><td>_</td></tr>
<tr><td>Title of book</td><td>Varchar</td><td>15</td><td>_</td></tr>
<tr><td>Book Code</td><td>Varchar</td><td>5</td><td>_</td></tr>
<tr><td>Book Price</td><td>Number(5,2)</td><td>5 with 2 decimal places</td><td>–</td></tr>
</table>
</td><td>8</td></tr>
</table>

Unit	Content	No. of Hours
	Queries: a) Insert the records into the table publisher and book. b) Describe the structure of the tables. c) Show the details of the book with the title "DBMS". d) Show the details of the book with a price>300. e) Show the details of the book with the publisher name 'Kalyani'. f) Select the book code, book title, publisher city is 'delhi'. g) Select the book code, book title and sort by book price. h) Count the number of books the publisher starts with Sultan chand;. i) Find the name of the publisher starting with S;	
	Total Hours	**60**
Text Books		
1.	Silberschatz, (2021). Database System Concepts, 6th Edition, McGraw-Hill Publications.	
2.	Elmasri and Navathe, (2021). Fundamentals of Database Systems, 7th Edition, Pearso Publications.	
3	Connolly, T. M., and Begg, C. E., (2015). Database Systems: A Practical Approach to Desig Implementation, and Management, 6th Edition, Pearson Publications.	
Reference Books		
1.	Hoffer, J. A., Ramesh, V., and Topi, H., (2022). Modern Database Management, 13th Edition, Pearson Publication	
2.	Date, C. J., (2000). An Introduction to Database Systems, 7th Edition, Addison-Wesley Publications.	
3.	Ullman, J. D., (1988). Principles of Database and Knowledge Base Systems, Volume 1, Computer Science Press.	
Web Resources (Swayam / NPTEL/Others)		
1.	https://onlinecourses.nptel.ac.in/noc22_cs91/preview	
2.	https://nptel.ac.in/courses/106106220	
3.	https://onlinecourses.nptel.ac.in/e-learning/preview/noc20_cs60	

Core Lab - V: Advanced Applications for Data Analytics in Fintech Lab

Course Code	Course Name	Category	Hours/Week	Credits
25BCC45P	Advanced Applications of Data Analytics in Fintech Lab	Core Lab - V	4	3

S.No.	List of Programs
1.	**Interface Navigation & Tooling Basics Exercise**: Open the starter kit; navigate Jupyter/Colab, Power BI (Model/Data/Report), DB Browser for SQLite, and AutoML tool (Google AutoML/Alteryx). Load sample financial CSVs into Python and Power BI. Run a test notebook cell to confirm readiness. **Deliverables**: readiness checklist ≥70%, dataset profiling notes.
2.	**Data Cleaning & Audit Exercise**: Import messy financial datasets (transactions, credit history). Handle missing values, outliers, duplicates, and inconsistent IDs. Standardize date formats and numeric fields. **Deliverables**: Cleaned_Fintech.csv + cleaning_steps.md.
3.	**Visual Analytics & KPIs Exercise**: Load cleaned datasets into Power BI. Create KPIs - default rate, fraud %, and average transaction size. Add trend charts and card visuals. **Deliverables**: KPI_Dashboard.pbix + snapshot image.
4.	**Fraud Detection via Clustering Exercise**: Apply k-means clustering on transaction data to flag anomalies. Build a table of suspicious transactions with cluster labels. **Deliverables**: Suspicious_Txns.csv + cluster_report.md.
5.	**Credit Risk Scoring (Log Reg & Trees) Exercise:** Train Logistic Regression and Decision Tree models for credit scoring. Compare ROC/AUC and confusion matrices. **Deliverables:** CreditRisk_Report.md + model_comparison.png.
6.	**Rules vs ML Fraud Engine Exercise:** Implement rule-based fraud detection (thresholds, blacklists) and benchmark vs ML model output. **Deliverables:** Fraud Rules_vs_ML.csv + performance_chart.png.
7.	**Back testing Trading Strategy Exercise:** Back test a moving-average crossover strategy on stock data. Compute Sharpe ratio, win/loss %, and max drawdown. **Deliverables:** Backtest_Log.csv + StrategyReport.md.
8.	**Sentiment Analysis in Finance Exercise:** Use stock market news headlines dataset. Apply sentiment model and correlate sentiment with next-day returns. **Deliverables:** Sentiment_Scores.csv + Correlation_Report.md.
9.	**Portfolio Optimization Exercise:** Implement Modern Portfolio Theory in Python Generate efficient frontier and optimal portfolio weights by risk level. **Deliverables:** Portfolio_Weights.csv + FrontierPlot.png.

S.No.	List of Programs
10.	**Time-Series Forecasting Exercise:** Build ARIMA and LSTM models to forecast stock prices. Compare RMSE/MAE metrics across models. **Deliverables:** Forecast_Results.csv + Forecast_Plot.png.
11.	**AI/AutoML Experiment Exercise:** Use Google AutoML/Alteryx to train predictive models on financial datasets. Compare results with manual Python models. **Deliverables:** AutoML_Output.csv + Comparison_Report.md.
12.	**Robo-Advisory Simulation Exercise:** Build a simple robo-advisor to recommend portfolio allocations based on user profile (age, income, risk appetite). **Deliverables:** RoboAdvisor_Output.csv + Demo_Notebook.ipynb.
13.	**Capstone Build & Showcase Exercise:** Choose track (Fraud Engine / Credit Risk Dashboard / Algo Trading Bot). Implement pipeline (data prep → models → dashboard → forecast). Package outputs with SOP and demo. **Deliverables:** Final project kit (CSV/SQL/Notebook/PBIX) + 3-5 min demo recording.
	Total Hours **60**

Text Books

1.	Marcos López de Prado, (2018), Advances in Financial Machine Learning, Wiley Publisher.
2.	David Aronson, (2011), Evidence-Based Technical Analysis, Wiley Publisher.
3.	Foster Provost & Tom Fawcett, (2018), Data Science for Business, O'Reilly Media
4.	Cindi Howson, (2013), Successful Business Intelligence, McGraw-Hill.

Web Resources (Swayam/NPTEL/ Others)

1	https://nptel.ac.in/courses/106106361
2	https://nptel.ac.in/courses/110104624
3	https://www.coursera.org/learn/alteryx-mastery-data-analytics--workflow-automation
4	https://www.coursera.org/learn/introduction-to-data-analytics
5	https://www.coursera.org/specializations/modern-data-analytics-with-python-excel-and-genai

Course Code	Course Name	Category	Hours / Week	Credits
25BCC46A	Business Mathematics and Statistics	Allied - IV	4	3

Course Objectives

The course intends to cover

- Foundational mathematical framework of Ratio and proportion, including continued proportion and direct, indirect and joint variation.
- Interest and annuity, including arithmetic and geometric series, simple and compound interest, and types of annuity.
- The computational methodologies required for determining discrete and continuous measures of central tendency.
- The analytical frameworks for assessing dataset variability utilizing Measures of dispersion and Index numbers for measuring changes
- The applications and problem-solving techniques of correlation, simple linear regression, and time series analysis, integrated with AI-based data analytics..

Course Learning Outcomes

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

CLO	CLO Statements	Knowledge Level
CLO1	Recall the terms, types, properties and formulae of ratio, proportion and variation.	K1
CLO2	Interpret the role of financial decisions by explaining series, simple and compound interest, and annuity.	K2
CLO3	Interpret the representation of the dataset by relating the results of the measures of central tendency.	K2
CLO4	Determine the variability of data by applying measures of dispersion and index numbers.	K3
CLO5	Analyze relationships between variables using correlation and regression, and analyze trends using time series.	K4
K1 - Recall; **K2 -** Interpret; **K3 -** Determine; **K4 -** Analyze		

CLO - PLO Mapping

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

Allied - IV: Business Mathematics and Statistics

Unit	Content	No. of Hours
I	**Ratio:** Introduction-inverse-types, **Proportion:** difference between ratio and proportion - continued proportion - common value techniques -properties **variations**: Direct, indirect and joint variation.	12
II	**Interest and Annuity:** Arithmetic series - geometric series - simple interest-compound interest - annuity - meaning- types of annuity.	12
III	**Measures of Central Tendency**: Arithmetic mean, geometric mean, harmonic mean, median, mode.	12
IV	**Measures of Dispersion:** Range - Quartile deviation - standard deviation - coefficient of variance - Index number - weighted and unweighted Index number.	12
V	**Correlation:** Introduction - Karl Pearson's co-efficient of correlation - Spearman's Rank Correlation - simple linear regression - two regression lines. Analysis of Time Series - secular trend. AI: Artificial Intelligence in Data Analysis.	12
	Total Hours	**60**
Text Books		
1.	Navnitham.P.A, Lakshmi.M.S.V (2025), Business Mathematics, Statistics & OR, Jai publishers. Unit I: Pg. No. 622 - 665	
2.	Navnitham.P.A, Lakshmi.M.S.V (2022), Business Mathematics and statistics, Jai publishers. Unit II - Pg. No.1-15, 17-29, 43-61, 65-75. Unit III - Pg. No. 159-183,196-271. Unit IV- Pg. No. 301-311,325-340,360-368,444-456. Unit V - Pg. No. 503-522,540-554,579 - 601.	
Reference Books		
1.	Sharma.J.K (2014), Fundamentals of Business Statistics, Vikas Publishing House, Noida.	
2.	Bhardwaj.R.S (2019), Business Mathematics & Statistics, Scholar Tech Press, New Delhi.	
Web Resources (Swayam / NPTEL/Others)		
1.	https://nptel.ac.in/courses/111106164	
2.	https://www.ibm.com/think/topics/ai-analytics	

SEC Lab - II: Computer Applications: GST with Tally - I Lab

Course Code	Course Name	Category	Hours/Week	Credits
25BCC47P	Computer Applications: GST with Tally - I Lab	SEC Lab - II	2	2

S.No. 1 — Programs

Create the Following company in "Jayanthi Papers" (GST No.33AXLPS8827K1ZQ) Address :205, CSI ,High School Road, Coimbatore, Tamil Nadu, 641001 for the Financial year 2026-2027

S.No. 2

Creating and displaying ledger

S.No	Particulars	Debit	Credit
1	Opening Stock	8,69,390	
2	Sales		28,76,300
3	Sales Inward	2,34,910	
4	Carriage inward	12,670	
5	Telephone and Internet charges	9,800	
6	Cash	6,10,300	
7	Shop Rent	25,000	
8	Licence renewal	5,400	
9	Commission Received		42,000
10	Purchase	25,27,100	
11	Loading and Unloading	10,920	
12	Standard Paper Stores (GST NO. 33AAHFS0729B1ZO)	1,71,932	
13	Computer	56,999	
14	Air conditioner	57,990	
15	Printer	21,299	
16	Paper Shoppe (GST NO. 33ABJPL9298F1Z8)		88,260
17	Travelling Conveyance	9,500	
18	Drawings	52,000	
19	Capital		40,00,000
20	State Bank Of India	22,35,000	
21	Office Maintance	30,000	
22	Loan from State Bank Of India		2,00,000
23	India Paper Products, Karnataka (GST NO. 29AAAFI2208J1ZJ)	3,17,000	
24	Paper Distributors Pvt. Ltd, Gujarat (GST NO. 24AABCP4787D1ZG)		56,100
25	Electricity Charges	5,450	
	Total	**72,62,660**	**72,62,660**

S.No. Programs

3

Create the following Stock items with respective Stock Groups, Stock Categories, Godown and Unit of Measurement with GST

S.No	Particulars (HSN Code - 480255)	Total Qty	Godown		Cost Price	Selling Price	Total Amount	GST
			Shop	Warehouse				
1	JK Sparkle A4 80 Gsm Paper	155	85	70	230	272	35650	5%
2	TNPL A4 80 Gsm	220	120	100	219	250	48180	5%
3	Eco Canvas A4 Colour Copier Paper	410	210	200	260	280	106600	18%
4	SPB Deluxe Copier Paper	450	350	100	232	252	104400	18%
5	Jk Excel Bond A4 Paper 90gsm	347	200	147	340	410	117980	40%
6	Spb Copier 70 Gsm	270	170	100	212	252	57240	5%
7	TNPL 70GSM A3	390	195	195	533	550	207870	40%
8	TNPL 80GSM FS	125	75	50	310	350	38750	5%
9	Eco Rise A4 70 GSM Copier Paper	360	200	160	252	282	90720	18%
10	JK Cedar Digital Printing Paper	200	120	80	310	380	62000	40%
	Total	**2927**					**869390**	

4

Create the Following Transaction for your Books (Purchase and Sales are GST Included)

1. The Company Purchased the Following Items from Paper Distributors Pvt. Ltd and Stored in Shop Godown. Calculate 2% freight charges (SAC Code: 9965, GST - 18%) and Out of this transaction value 50% Payable as on immediately and the remaining is Payable within 15 days. (Supplier Invoice No.PDPL/013)

Items	Qty
JK Sparkle A4 80 Gsm Paper	120
TNPL A4 80 Gsm	200
Eco Canvas A4 Colour Copier Paper	190
SPB Deluxe Copier Paper	70
Jk Excel Bond A4 Paper 90gsm	40

2. The Company make the payment to Paper Distributors Pvt. Ltd through State Bank of India cheque for Rs. 87510 /-

3. The Company return the Following Items to Paper Distributors Pvt. Ltd and Calculate 2% freight charges

Items	Qty
JK Sparkle A4 80 Gsm Paper	20
Eco Canvas A4 Colour Copier Paper	50
Jk Excel Bond A4 Paper 90gsm	5

S.No.	Programs

4. The company paid the Advertisement Expenses for Rs.12000/- through cash
5. The Company Rs.75000/- Deposited into Bank (Denominations: 2000 X 22, 500 X 37, 200 X50, 100 X25)
6. The company sold the Following Items to Standard Paper Stores. Select the Stock from the available godown. Calculate 3% Delivery charges (SAC Code: 9965, GST - 18%) and 2% Packing charges (SAC Code: 9985, GST - 18%) and Out of this transaction value 100% receivable as on immediately.

Items	Qty
JK Sparkle A4 80 Gsm Paper	255
TNPL A4 80 Gsm	420
Eco Canvas A4 Colour Copier Paper	550
SPB Deluxe Copier Paper	520
Jk Excel Bond A4 Paper 90gsm	382

7. The Company Received the Cheque for Rs.775038 /- from Standard Paper Stores
8. The company purchased E-Vehicle from EV Gear Technologies (GST No: 33AALFE0310Q1ZI) for Rs. 85000/-(GST rate 5% & HSN No:8703) .
9. The Owner withdraws the cash for 55,000 from State Bank of India for his Personal Use
10. The Company Purchased the Following Stock Item from Paper Shoppe and Stored in Shop Godown. Out of this transaction value 50% Payable as on immediately and the remaining is Payable within 40 days. (Supplier Invoice No.PS/0011)

Items	Qty
Spb Copier 70 Gsm	190
TNPL 70GSM A3	100
TNPL 80GSM FS	75
Eco Rise A4 70 GSM Copier Paper	150
JK Cedar Digital Printing Paper	110

11. The Company Make the Payment to Paper Shoppe through State Bank of India Cheque for Rs.116835.50 /-
12. The company sold the Following Items to India Paper Products. Select the Stock from the available godown. Calculate 3% Delivery charges and 2% packing charges.Out of this transaction value 50% receivable as on immediately and the remaining is receivable within 20 days

Items	Qty
Spb Copier 70 Gsm	270
TNPL 70GSM A3	390
TNPL 80GSM FS	125
Eco Rise A4 70 GSM Copier Paper	360
JK Cedar Digital Printing Paper	200

13. The company received 1st instalment amount by cheque for Rs.336799/- from India Paper Products .
14. The company return the Following Items from India Paper Products. Calculate 3% Delivery charges. (Buyer's Debit Note No. 23)

Items	Qty
Spb Copier 70 Gsm	10

S.No.	Programs
	<table><tr><td>TNPL 80GSM FS</td><td>12</td></tr><tr><td>JK Cedar Digital Printing Paper</td><td>15</td></tr></table> 15. The Company Issue the Cheque for Rs. 12,000/- for Internet Charges 16. The Company paid the Interest to Loan for Rs.5550/- by cash 17. The company withdraw the cash from bank for Rs. 45000/- 18. The Company paid cash for the following Expenses Staff Welfare-Rs.4500/-, Travelling Conveyance - Rs. 7200/-, Office Maintenance - Rs.6,000/- and Salary for 30,000/- 19. The Company paid the Insurance Premium Rs.5,500/- through Cash 20. The company withdraw the cash from bank for Rs. 65000/-.
	Total Hours **30**
Text Books	
1	Tally Education Pvt. Ltd, (2018), Official Guide to Financial Accounting Using Tally. ERP 9, BPB Publications.
2	Shraddha Singh, (2015), Tally ERP 9 Power of Simplicity, V&S Publishers
3	Nadhani, (2009), Tally. ERP 9 Training Guide, BPB Publications.
Web Resources (Swayam/NPTEL/ Others)	
1	https://nptel.ac.in/courses/110106512
2	https://swayamplus.education.gov.in/courses/ilike-tallyprime-with-gst
3	https://www.coursera.org/professional-certificates/tally-bookkeeper
4	https://www.coursera.org/learn/tally-gst-compliance-and-return-filing

Ability Enhancement Compulsory Course – II : Quantitative Aptitude

Course Code	Course Name	Category	Hours / Week	Credits
25QUA4AE	Quantitative Aptitude	AECC - IV	2	2

Unit	Details	No. of Hours
I	Average - Basic concepts - Equation - Mistaken value - Replacement - Including/Excluding; Ratio and Proportion - Basic concepts - Types of ratios - Proportion - Application problems	6
II	Blood Relations - Family relationship problems - Relationship identification; Directions - Direction sense - Distance and direction - Turning and orientation problems	6
III	Problems on Ages - Present, past and future ages - Age ratios - Application problems; Alligation and Mixture - Basic concepts - Rule of alligation - Mixture replacement problems	6
IV	Coding and Decoding - Letter coding - Number coding - Symbol coding - Pattern-based coding; Alphanumeric Series - Letter, number and symbol sequences - Series identification - Missing term problems	6
V	Percentage - Increase/decrease - Net change; Profit and Loss - Profit/loss percentage - Cost price and selling price - Discount; Simple Interest - Principal, rate, time and amount; Compound Interest - Principal, rate, time and amount - Difference between simple and compound interest	6
	Total Hours	**30**

Text Book

1. Arora, A., (2022). Quanta Quantitative Aptitude, Kiran Institute of Career Excellence Pvt. Ltd.

Reference Book

1. Guha, A., (2017). Quantitative aptitude for all competitive examinations (6th ed.), McGraw Hill Education.

Web Resources

1. https://prepinsta.com/learn-aptitude/
2. https://www.indiabix.com/aptitude/questions-and-answers/

Components of Assessment (CIA & ESE)

Components for Internal Assessment and Distribution of Marks for CIA and ESE (Theory)

Max Marks	Marks for		Components for CIA						
	CIA	ESE	CIA		Model		Attendance	Active Engagement	Total
			Actual	Weightage	Actual	Weightage			
100	25	75	50	**5**	75	**10**	**5**	**5**	**25**

Question Paper Pattern (CIA & ESE)

Component	Duration in Hours	Section A			Section B			Section C			Total
		Type of Question	No. of Questions	Marks	Type of Question	No. of Questions	Marks	Type of Question	No. of Questions	Marks	
CIA	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 (Lab)

Max Marks	Marks for		Components for CIA						
	CIA	ESE	Test		Model		Experiments / Programs	Observation	Total
			Actual	Weightage	Actual	Weightage	Marks		
100	40	60	50	**10**	60	**15**	**10**	**5**	**40**

Examination Pattern

Component	Duration in Hours	Marks			Weightage
		Practical Exam	Record	Total Marks	
Test	2	50	-	**50**	10
Model	3	60	-	**60**	15
Experiments	-	-	-	**10**	10
Observation	-	-	-	**05**	05
				Total Marks - CIA	**40**
ESE	3	50	10	-	**60**

Components for Internal Assessment and Distribution of Marks for CIA (Foundation Course -Theory)

Max Marks	Marks for		Components for CIA				
50	CIA	ESE	CIA		Model		Total
	50	-	Actual	Weightage	Actual	Weightage	
			50	**25**	50	**25**	**50**

Question Paper Pattern

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

Components for and Distribution of Marks for ESE (Theory) Ability Enhancement Compulsory Courses (AECC) & Question Paper Pattern

Duration in Hours	Mode of Exam	Type of Questions	No. of Questions	Marks
2	Online	MCQ	50	50x1=50