SCHOOL OF ARTS AND SCIENCE

Minutes of First Meeting of Board of Studies of B. Com (Computer Application)

The Second Meeting of Board of Studies for Bachelor of Commerce - Computer Application (B.Com. - CA) Programme was held on 01st April 2023, Saturday at 01.00 P.M. via Zoom Meeting (Great Learning Platform) with the Head of the Department in the Chair. The following members were present for the BoS meeting.

S. No.	Name of the Member	Designation
1	**Dr. G. Bala Sendhil Kumar** Professor and Head, Business Studies, School of Arts and Science Sri Manakula Vinayagar Engineering College Puducherry	Chairman
2	**Prof. Punam Bedi** Professor, Department of Computer Science University of Delhi, Delhi	Pondicherry University Nominee
3	**Dr. R. Rajendran** Associate professor, Department of Business Administration, Annamalai University, Chidambaram	Subject Expert (Academic Council Nominee)
4	**Dr. A. Martin** Assistant Professor, Department of Computer Science Central University of Tamil Nadu, Thiruvarur	Subject Expert (Academic Council Nominee)
5	**Mr. J. Prassana Vengatesh** Solution Architecture, HCL Technologies, Chennai	Member (Industry representative)
6	**Dr. K. Premkumar** Professor and Head Department of Computer Science & Engineering Sri Manakula Vinayagar Engineering College Puducherry	Internal Member
7	**Dr. S. Pougajendy** Professor, Department of Management Studies Sri Manakula Vinayagar Engineering College Puducherry	Internal Member
8	**Ms. S. Visalakshi** Assistant Professor, Department of Management Studies Sri Manakula Vinayagar Engineering College Puducherry	Internal Member
9	**Mr. G. Vengatesan** Assistant Professor, Department of Business Studies, School of Arts and Science, Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member

10	**Ms. M. Abirami @ Manoranjitham** Assistant Professor, Department of Business Studies, School of Arts and Science, Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member
11	**Mrs. M. Dhivya** Assistant Professor, Department of Business Studies, School of Arts and Science, Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member
12	**Dr. M. Vanitha** Assistant Professor, Department of Tamil School of Arts and Science, Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member
13	**Mr. Elamaran** Assistant Professor, Department of English School of Arts and Science, Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member

Agenda of the Meeting

Item No. : BoS / B.Com - CA 2.1	
	❖ Welcome Address & Introduction of Members of Board of Studies. ❖ Confirmation of Minutes of the First Meeting of the Board of Studies.
Item No. : BoS / B.Com - CA 2.2	
	❖ Discussion and Approval of improvisation of the Curriculum Framework (3rd to 6th Semester) and Syllabi of Third Semester courses of the UG Programme: Bachelor of Commerce (B.Com) in Computer Application under Regulation 2020 (For the students admitted during the Academic Year 2022-2023).
Item No. : BoS / B.Com - CA 2.3	
	❖ Discussion and Approval of Curriculum Framework (1 to 6 Semesters) and Syllabi of 1st Semester for the Programme: Bachelor of Commerce (B.Com) in Computer Application under Regulations 2023. (For the students admitted from the Academic Year 2023-2024).
Item No. : BoS / B.Com - CA 2.4	
	Discussion of the following as in the Regulation 2023 of School of Arts and Science, Sri Manakula Vinayagar Engineering College. ❖ Admission eligibility criteria. ❖ Conduct of Internal Assessment Test, Award of Continuous Assessment Marks / Re Earn / Improvement / Evaluation Procedures.
Item No. : BoS / B.Com - CA 2.5	
	❖ Any other item with the permission of chair.

Minutes of the Meeting

The meeting deliberated on the agenda items that had been approved by the Chairman.

Item No. : BoS / B.Com - CA 2.1

Dr. G. Bala Sendhil Kumar, Chairman, BoS opened the meeting by greeting and introducing the external members to the internal members and meeting thereafter deliberated on the approved agenda items.

Confirmation of the Minutes of the First Meeting of the Members of Board of Studies held on 11th August 2022, Thursday at 10.30 A.M. was done by presenting the Minutes of First Meeting by the Chairman to the Board Members and the actions taken by the Department in the process of implementing it. Board Members suggested to include courses like Data Science, Cyber Security, Ethical Hacking. These courses were added in Discipline Specific Elective Courses.

Item No. : BoS / B.Com - CA 2.2

Few suggestions for improvising the Curriculum Framework (3rd to 6th Semester) of the UG Programme: Bachelor of Commerce in Computer Application (B.Com. - CA) under Regulation 2020, was presented to the Board members for discussion and approval. After a long discussion, these improvisations were approved by the Members of Board of Studies (see annexure 1). The Syllabi of Third Semester courses of the UG Programme: Bachelor of Commerce in Computer Application (B.Com. - CA) under Regulation 2020 (For the students admitted during the Academic Year 2022-2023), was approved by the Board Members.

Item No. : BoS / B.Com - CA 2.3

The New Curriculum Framework under the Regulations 2023 of the UG Programme - Bachelor of Commerce in Computer Application (B.Com. - CA) (For the students admitted from the Academic Year 2023-2024) was discussed in detail and the Board Members unanimously appreciated and approved the Curriculum Framework (1 to 6 Semesters) (shown in Annexure 3). The Syllabi of the 1st Semester Courses of the UG Programme - Bachelor of Commerce in Computer Application (B.Com. - CA) (Shown in Annexure 4) was discussed and Board Members approved the same.

Item No. : BoS / B.Com - CA 2.4
The following were discussed as in the Regulation 2023 of School of Arts and Science, Sri Manakula Vinayagar Engineering College. • Admission eligibility criteria. • Conduct of Internal Assessment Test • Award of Continuous Assessment Marks / Re Earn / Improvement / Evaluation Procedures. Discussions were made on the above listed items and accepted by the BoS Members.

BoS / 2022/ B.Com - CA 2.5
No other item was considered for further discussion in the Second Meeting of Members of BoS of Bachelor of Commerce in Computer Application (B.Com. - CA) Programme.

The external members of the Board have expressed their appreciations for framing curriculum and syllabi based on the industrial needs which enhances employability skills of the students. The meeting ended with vote of thanks by the Chairman of the Board, was concluded at 02.25 P.M.

The Minutes of the Second Meeting of Board of Studies for Bachelor of Commerce - Computer Application (B.Com. - CA) Programme held on 01st April 2023 was signed by the members who attended the meeting:

Sl. No	Name of the Member with Designation and official Address	MEMBERS AS PER UGC NORMS	Signature
1	**Dr. G. Bala Sendhil Kumar** Professor and Head, Business Studies, School of Arts and Science Sri Manakula Vinayagar Engineering College, Puducherry	Chairman	
2	**Prof. Punam Bedi** Professor, Department of Computer Science, University of Delhi, Delhi	Pondicherry University Nominee	
3	**Dr. R. Rajendran** Associate professor, Department of Business Administration, Annamalai University, Chidambaram	Subject Expert (Academic Council Nominee)	
4	**Dr. A. Martin** Assistant Professor, Department of Computer Science, Central University of Tamil Nadu, Thiruvarur	Subject Expert (Academic Council Nominee)	
5	**Mr. J. Prassana Vengatesh** Solution Architecture, HCL Technologies, Chennai	Member (Industry representative)	

6	**Dr. K. Premkumar** Professor and Head Department of Computer Science & Engineering, Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member	
7	**Dr. S. Pougajendy** Professor, Department of Management Studies, Sri Manakula Vinayagar Engineering College Puducherry	Internal Member	
8	**Ms. S. Visalakshi** Assistant Professor, Department of Management Studies Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member	
9	**Mr. G. Vengatesan** Assistant Professor, Department of Business Studies, School of Arts and Science, Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member	
10	**Ms. M. Abirami @ Manoranjitham** Assistant Professor, Department of Business Studies, School of Arts and Science, Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member	
11	**Mrs. M. Dhivya** Assistant Professor, Department of Business Studies, School of Arts and Science, Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member	
12	**Dr. M. Vanitha** Assistant Professor, Department of Tamil, School of Arts and Science, Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member	
13	**Mr. Elamaran** Assistant Professor, Department of English, School of Arts and Science, Sri Manakula Vinayagar Engineering College, Puducherry	Internal Member	

Dr. G. Bala Sendhil Kumar
Professor and Head - Business Studies
Chairman, Board of Studies - B.Com. CA

Dr. S. Muthulakshmi
Dean - School of Arts & Science
Sri Manakula Vinayagar Engineering College

ANNEXURE - 1

SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE
(An Autonomous Institution)
(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
(Accredited by NBA-AICTE, New Delhi, ISO 9001:2000 Certified Institution &
Accredited by NAAC with "A" Grade)
Madagadipet, Puducherry - 605 107

SCHOOL OF ARTS AND SCIENCE

BACHELOR OF COMMERCE

(COMPUTER APPLICATION)

ACADEMIC REGULATIONS 2020
(R-2020)
CURRICULUM

COLLEGE VISION AND MISSION

Vision

To be globally recognized for excellence in quality education, innovation and research for the transformation of lives to serve the society.

Mission

M1: Quality Education:

To provide comprehensive academic system that amalgamates the cutting-edge technologies with best practices.

M2: **Research and Innovation:**

To foster value-based research and innovation in collaboration with industries and institutions globally for creating intellectuals with new avenues.

M3: Employability and Entrepreneurship:

To inculcate the employability and entrepreneurial skills through value and skill-based training.

M4: Ethical Values:

To instill deep sense of human values by blending societal righteousness with academic professionalism for the growth of society.

DEPARTMENT OF BUSINESS STUDIES

VISION AND MISSION

Vision

To explore value-based Accounting and Management Education through innovative and flexible curriculum that enables to decipher and adapt in multidisciplinary academic and research environments and the society at large.

Mission

M1: Knowledge Sharing:

To transform lives through knowledge creation and sharing

M2: **Collaborative Learning:**

To leverage the resources to provide experiential learning, immersion and other collaboration opportunities.

M3: Career Development:

To provide the best professional development and career growth opportunities to the students.

M4: Consistent Improvement:

To continuously improve through stakeholder engagement, industry relations, and assurance of learning across multiple domains.

Programme Outcome (PO)

PO1: Acquire the essential knowledge on the successful prospects of business.

PO2: Understand the practical issues and challenges that the trade world encounters.

PO3: Apply concepts, principles and procedures in transacting business effectively.

PO4: Gain analytical skill in undertaking commercial ventures and evaluate the pros and cons of embarking on trade and trade related activities based on their in-depth knowledge.

PO5: Be employable, exhibit entrepreneurial drive and be a model of principled and ethically sound business professionals.

Program Specific Outcomes (PSO)

PSO1: Apply the various business management and computer applications concepts to solve the real-world problems.

PSO2: Acquire the knowledge on object-based computer applications in various business fields.

PSO3: Enrich the practical knowledge on applications of accounting and programming languages in business ventures.

BACHELOR OF COMMERCE

(COMPUTER APPLICATION)

STRUCTURE FOR UNDERGRADUATE PROGRAMME

Sl. No	Course Category	Breakdown of Credits
Part I		
1	Modern Indian Language (MIL)	06
Part II		
2	English (ENG)	06
Part III		
3	Discipline Specific Core Courses (DSC)	84
4	Discipline Specific Elective Courses (DSE)	12
5	Inter-Disciplinary courses (IDC)	09
6	Skill Enhancement Courses (SEC)	10
7	Employability Enhancement Courses (EEC*)	0
8	Ability Enhancement Compulsory Courses (AECC)	06
9	Open Electives (OE)	04
10	Online Courses (OC)	0
11	Extension Activity (EA)	01
Total		**138**

SCHEME OF CREDIT DISTRIBUTION – SUMMARY

Sl. No	Course Category	Credits per Semester						Total Credits
		I	II	III	IV	V	VI	
Part I								
1	Language (MIL) (Tamil / French)	3	3					06
Part II								
2	English (ENG)	3	3					06
Part III								
3	Discipline Specific Core Courses (DSC)	9	14	11	17	16	17	84
4	Discipline Specific Elective Courses (DSE)			3	3	3	3	12
5	Inter-Disciplinary Courses (IDC)	3	3	3				09
6	Skill Enhancement Courses (SEC)	2		2	2	2	2	10
7	Employability Enhancement Courses (EEC*)	0	0	0	0			0
8	Ability Enhancement Compulsory Courses (AECC)	2	2		2			06
9	Open Electives (OE)			2	2			04
10	Online Courses (OC*)					0		0
11	Extension Activity (EA)		1					01
Total		**22**	**26**	**21**	**26**	**21**	**22**	**138**

** EEC and OC will not be included for the computation of "Total of Credits" as well as "CGPA".*

SEMESTER – I										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part I										
Theory										
1	A20FRT101	French - I	MIL	3	0	0	3	25	75	100
	A20TAT101	Tamil - I								
Part II										
Theory										
2	A20BET101	Business English - I	ENG	3	0	0	3	25	75	100
Part III										
Theory										
3	A20BAT101	Principles of Accounting	DSC	4	1	0	5	25	75	100
4	A20CCT101	Fundamentals of Information Technology	DSC	4	0	0	4	25	75	100
5	A20CCD101	Mathematics for Computer Application	IDC	3	0	0	3	25	75	100
Skill Enhancement Course										
6	A20CCS101	Communication Skills	SEC	0	0	4	2	100	0	100
Employability Enhancement Course										
7	A20CCC101	Certification Course - I*	EEC	0	0	4	0	100	0	100
Ability Enhancement Compulsory Course										
8	A20AET101	Environmental Studies	AECC	2	0	0	2	100	0	100
							22	425	375	800

** Employability Enhancement Course are to be selected from the list in Annexure I*

SEMESTER – II										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part I										
Theory										
1	A20FRT202 / A20TAT202	French - II / Tamil - II	MIL	3	0	0	3	25	75	100
Part II										
Theory										
2	A20BET202	Business English - II	ENG	3	0	0	3	25	75	100
Part III										
Theory										
3	A20CCT202	Financial Accounting for Business	DSC	3	1	0	4	25	75	100
4	A20CCT203	Programming with C	DSC	4	0	0	4	25	75	100
6	A20BFT203	Legal Aspects of Business	DSC	4	0	0	4	25	75	100
7	A20CCD202	Economics for Business Decisions	IDC	3	0	0	3	25	75	100
Practicals										
7	A20CCL201	Programming with C Lab	DSC	0	0	4	2	50	50	100
Employability Enhancement Course										
8	A20CCC202	Certification Course - II*	EEC	0	0	4	0	100	0	100
Ability Enhancement Compulsory Course										
9	A20AET202	Public Administration	AECC	2	0	0	2	100	0	100
Extension Activity										
10	A20EAL201	National Service Scheme	EA	0	0	2	1	100	0	100
							26	500	500	1000

** Employability Enhancement Course are to be selected from the list in Annexure I*

SEMESTER – III										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part III										
Theory										
1	A20CMT305	Corporate Accounting	DSC	4	1	0	5	25	75	100
2	A20CCT304	Programming with C++	DSC	4	0	0	4	25	75	100
3	A20CCD303	Statistics for Computer Application	IDC	3	0	0	3	25	75	100
4	A20CCE301	Basics of Data Science	DSE	3	0	0	3	25	75	100
	A20CCE302	System Software Concepts								
	A20CCE303	Business Strategy								
5	A20XXO3XX	Open Elective – I**	OE	2	0	0	2	25	75	100
Practicals										
6	A20CCL302	Programming with C++ Lab	DSC	0	0	4	2	50	50	100
Skill Enhancement Course										
7	A20CCS302	Accounting using Software	SEC	0	0	4	2	100	0	100
Employability Enhancement Course										
8	A20CCC303	Certification Course - III*	EEC	0	0	4	0	100	0	100
							21	375	425	800

SEMESTER – IV										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part III										
Theory										
1	A20CCT405	Management Accounting	DSC	4	1	0	5	25	75	100
2	A20CCT406	Problem Solving with Java	DSC	4	0	0	4	25	75	100
3	A20CPT408	Database Management Systems	DSC	4	0	0	4	25	75	100
4	A20CCE404	Basics of Stock Market	DSE	3	0	0	3	25	75	100
	A20CCE405	Insurance and Risk Management								
	A20CCE406	Financial Markets and Services								
5	A20XXO4XX	Open Elective – II**	OE	2	0	0	2	25	75	100
Practical										
6	A20CCL403	Programming with Java Lab	DSC	0	0	4	2	50	50	100
7	A20CCL404	DBMS Lab	DSC	0	0	4	2	50	50	100
Skill Enhancement Course										
8	A20CCS403	Entrepreneurial Skills	SEC	0	0	4	2	100	0	100
Ability Enhancement Compulsory Course										
9	A20AET403	Value Education	AECC	2	0	0	2	100	0	100
Employability Enhancement Course										
10	A20CCC404	Certification Course - IV*	EEC	0	0	4	0	100	0	100
							26	525	475	1000

** Employability Enhancement Course are to be selected from the list in Annexure I*

*** Open electives offered by the Departments are listed in Annexure II*

SEMESTER – V										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part III										
Theory										
1	A20CST512	Income Tax Law and Practice	DSC	4	0	0	4	25	75	100
2	A20CMT512	Cost Accounting	DSC	3	1	0	4	25	75	100
3	A20BAT512	Financial Management	DSC	3	1	0	4	25	75	100
4	A20CCE507	Financial Derivatives	DSE	3	0	0	3	25	75	100
	A20CCE508	Banking and Insurance								
	A20CCE509	Security Analysis and Portfolio Management								
Practicals										
5	A20CCL505	Data Visualisation	DSC	0	0	4	2	50	50	100
Project										
6	A20CCP501	Mini Project	DSC	0	0	4	2	40	60	100
Skill Enhancement Course										
7	A20CCS504	Business Research Methods	SEC	0	0	4	2	100	0	100
Online Certification Course										
8	A20CCM601	MOOC - Certificate Course	OC	0	0	4	0	Successful Completion		
							21	290	410	700

SEMESTER – VI										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part III										
Theory										
1	A20CCT607	Financial Reporting and Analysis	DSC	3	1	0	4	25	75	100
2	A20CST618	Goods and Service Tax	DSC	3	1	0	4	25	75	100
3	A20CAT613	Internet of Things	DSC	4	0	0	4	25	75	100
4	A20CCE610	Ethical Hacking	DSE	3	0	0	3	25	75	100
	A20CCE611	Cyber Security and Digital Forensics								
	A20CCE612	Personal Finance								
Skill Enhancement Course										
6	A20CCS605	Life Skills Development and Mentoring	SEC	0	0	4	2	100	0	100
Project										
7	A20CCP602	Major Project	DSC	0	0	10	5	40	60	100
							22	240	360	600

Annexure I

EMPLOYABILITY ENHANCEMENT COURSES - CERTIFICATION COURSES

(Not included in CGPA and Credits computation)

Certification Course - I, II, III & IV

(To be chosen from the below list but not limited)

Sl. No.	Course Title
1	MS Office
2	Tally
3	Python Programming
4	Mobile Application Development
5	Advanced Excel
6	Digital Marketing
7	Block Chain
8	Internet of Things
9	Google Analytics
10	Artificial Intelligence

Annexure II

OPEN ELECTIVE COURSES

Open Elective - I (Offered in Semester III)			
Sl. No	**Course Code**	**Course Title**	**Offering Department**
1	**A20BTO301**	Biotechnology for human welfare	Bioscience
2	**A20BTO302**	Food Processing	Bioscience
3	**A20BTO303**	Food Technology	Bioscience
4	**A20CHO304**	Food Analysis (Practical)	Chemistry
5	**A20CHO305**	Molecules of Life (Practical)	Chemistry
6	**A20CHO306**	Water Analysis (Practical)	Chemistry
7	**A20CMO307**	Fundamentals of Accounting and Finance	Commerce and Management
8	**A20CMO308**	Fundamentals of Management	Commerce and Management
9	**A20CMO309**	Fundamentals of Marketing	Commerce and Management
10	**A20CPO310**	Data Structures	Computational Studies
11	**A20CPO311**	Programming in C	Computational Studies
12	**A20CPO312**	Programming in Python	Computational Studies
13	**A20ENO313**	Conversational Skills	English
14	**A20ENO314**	Fine-tune your English	English
15	**A20ENO315**	Interpersonal Skills	English
16	**A20MAO316**	Mathematical Modelling	Mathematics
17	**A20MAO317**	Quantitative Aptitude - I	Mathematics
18	**A20MAO318**	Statistical Methods	Mathematics
19	**A20VCO319**	Event Management	Media Studies
20	**A20VCO320**	Graphic Design	Media Studies
21	**A20VCO321**	Role of social media	Media Studies
22	**A20NDO322**	Basic Food Groups	Food Science
23	**A20NDO323**	Life Style Management	Food Science
24	**A20NDO324**	Nutritive Value of Foods	Food Science
25	**A20PHO325**	Astrophysics	Physics
26	**A20PHO326**	Basic of Modern Communication System	Physics
27	**A20PHO327**	Bio-Physics	Physics
28	**A20TMO328**	அடிப்படை தமிழ்	Tamil
29	**A20TMO329**	வாழ்வியல் இலக்கணம்	Tamil
30	**A20TMO330**	புதுக்கவிதைப் பட்டறை	Tamil

Open Elective – II (Offered in Semester IV)			
Sl. No.	**Course Code**	**Course Title**	**Offering Department**
1	**A20BTO401**	Herbal Technology	Bioscience
2	**A20BTO402**	Vermiculture	Bioscience
3	**A20BTO403**	Biotechnology for Society	Bioscience
4	**A20CHO404**	C++ Programming and its Application to Chemistry	Chemistry
5	**A20CHO405**	Computational Chemistry Practical	Chemistry
6	**A20CHO406**	Instrumental Methods of Analysis	Chemistry
7	**A20CMO407**	Essential Legal Awareness	Commerce and Management
8	**A20CMO408**	Essentials of Insurance	Commerce and Management
9	**A20CMO409**	Practical Banking	Commerce and Management
10	**A20CPO410**	Database Management Systems	Computational Studies
11	**A20CPO411**	Introduction to Data Science using Python	Computational Studies
12	**A20CPO412**	Web Development	Computational Studies
13	**A20ENO413**	Functional English	English
14	**A20ENO414**	English Next-India	English
15	**A20ENO415**	English for Competitive Exam	English
16	**A20MAO416**	Discrete mathematics	Mathematics
17	**A20MAO417**	Operations Research	Mathematics
18	**A20MAO418**	Quantitative Aptitude - II	Mathematics
19	**A20VCO419**	Basics of News Reporting	Media Studies
20	**A20VCO420**	Scripting for media	Media Studies
21	**A20VCO421**	Video Editing	Media Studies
22	**A20NDO422**	Food Labelling	Food Science
23	**A20NDO423**	Hygiene and Sanitation	Food Science
24	**A20NDO424**	Nutrition for Adolescent	Food Science
25	**A20PHO425**	Digital Electronics	Physics
26	**A20PHO426**	Geo-Physics	Physics
27	**A20PHO427**	Space Science	Physics
28	**A20TMO428**	சிறுகதைப் பயிற்சி	Tamil
29	**A20TMO429**	செய்தி வாசிப்பு பயிற்சி	Tamil
30	**A20TMO430**	நிகழ்த்துக்கலை	Tamil

ANNEXURE 2
THIRD SEMESTER SYLLABI

Department	**Business Studies**	Programme: **B.Com. Computer Application**						
Semester	**THIRD**	Course Category Code: **DSC**				*End Semester Exam Type: **TE**		
Course Code	A20CMT305	Periods / Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**CORPORATE ACCOUNTING**	**4**	**1**	**0**	**5**	**25**	**75**	**100**
(Common to All Programmes in B.Com)								

Prerequisite	
Course Objective	To show understanding of the Accounting for Share Capital
	To explain the accounting for preference shares and bonus issue
	To comprehend the accounting for debentures
	To compare different types of underwriting and compute pre-incorporation profits
	To show the ability to prepare financial statements of companies

Course Outcome	**Completion of the course, the students will be able to**		BT Mapping (Highest Level)
	CO1	Solve problems pertaining to Accounting for Share Capital	**K3**
	CO2	Demonstrate an understanding of Accounting for Preference Shares and Bonus Issue	**K3**
	CO3	Solve the problems in Accounting for Debentures	**K3**
	CO4	Demonstrate an understanding on Underwriting contracts and computation of preincorporation profits	**K3**
	CO5	Compute the Profits or Losses of Joint Stock Companies by preparing Financial Statements.	**K3**

UNIT-I	**ACCOUNTING FOR SHARE CAPITAL**	**Periods: 15**
Meaning of Shares and Share Capital – Kinds of Share Capital – Procedure for Issue of shares – Issue of shares at par, at premium and at discount – Calls-in-advance and Interest on calls-in-advance – Calls-in-arrear and Interest on calls-in-arrear – Issue of shares for consideration other than cash – Forfeiture of Shares – Procedure for forfeiture of shares – Reissue of Forfeited shares – Full reissue and partial reissue – Reissue of forfeited shares at premium. Practical problems.		**CO1**
UNIT-II	**ACCOUNTING FOR PREFERENCE SHARES AND BONUS ISSUE**	**Periods: 15**
Preference shares – Meaning and significance – Difference between equity and preference shares – Redemption of Preference Shares – Creation of Capital Redemption Reserve – Utilization of CRR – Issue of Bonus Shares – Types – Conversion of partly paid into fully paid shares using bonus – Rights Issue – Accounting Treatment of Rights shares. Sweat Equity Shares. Practical problems		**CO2**
UNIT-III	**ACCOUNTING FOR DEBENTURES**	**Periods: 15**
Debentures – Features and Kinds – Difference between Debentures and Shares – Issue of debentures at par, at premium and at discount – Issue of Debentures for consideration other than cash – Issue of Debentures as Collateral Security – Debenture Interest – Computation and Accounting Treatment – Redemption of Debentures – Sources of Redemption – Debenture Redemption Reserve – Redemption by Conversion. Practical problems.		**CO3**
UNIT-IV	**UNDERWRITING AND PRE-INCORPORATION PROFITS**	**Periods: 15**
Underwriting – Meaning and Significance – Features – Underwriting of Shares and Debentures – Types of Underwriting – Complete and Partial Underwriting – Firm/Committed Underwriting. Computation and Accounting Treatment of Underwriting Commission – Practical Problems. Profit or Loss Pre- and Post-Incorporation – Meaning – Methods for computation – Bases for Apportionment of items of incomes and		**CO4**

expenses in pre- and post-incorporation periods – Treatment and use of Pre-Incorporation Profits and Losses – Practical Problems.		
UNIT-V	**FINANCIAL STATEMENTS OF COMPANIES**	**Periods: 15**
Financial Statements – Different Types of Financial Statements: Interim and Annual statements – Financial Statements Template and Form as per Schedule III of the Companies Act, 2013 – Excel - format of Financial Statements. Treatment of Special Items during Financial Statements Preparation: Depreciation Provisions and Reserves – Managerial Remuneration – Corporate Social Responsibility Spend – CSR Expenditure and Reporting. Practical Problems.		**CO5**

Lecture Periods: 60	**Tutorial Periods: 15**	**Practical Periods: -**	**Total Periods: 75**

Text Books

1. Reddy & Murthy, "Corporate Accounting", Margham Publications, 9 th Edition, 2018.
2. Hanif & Mukherjee, "Corporate Accounting", Tata McGraw Hill, 2 nd Edition, 2015.
3. R. Rajasekaran & V. Lalitha, "Corporate Accounting", Pearson Education, 1 st Edition, 2015.

Reference Books

1. M.C. Shukla, T.S. Grewal & S.C. Gupta, "Advanced Accounts – Vol.2", S.Chand & Sons, 19th Edition, 2017.
2. R.L. Gupta & M. Radhaswamy, "Corporate Accounting – Vol.1", Sultan Chand & Sons, 15th Edition, 2013.
3. P.C. Tulsian, "Corporate Accounting", Tata McGraw Hill Education,

Web References

1. https://www.icsi.edu/media/webmodules/publications/5.%20Company%20Accounts%20and%20Auditing%20Practices.pdf
2. https://resource.cdn.icai.org/61818bos50279-cp10-u2.pdf
3. https://resource.cdn.icai.org/61819bos50279-cp10-u3.pdf
4. https://resource.cdn.icai.org/38481bos28154-mod1-cp3.pdf
5. https://resource.cdn.icai.org/38483bos28154-mod1-cp2.pdf

* TE – Theory Exam

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)				Program Specific Outcomes (PSOs)			
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	3	3	3	2	3	1	3	3
2	3	3	3	2	3	1	3	2
3	3	3	3	2	2	1	3	2
4	3	3	3	3	3	1	3	2
5	3	3	2	2	2	1	2	2

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment	Attendance		
Marks	10		5	5	5	75	100

Department	**Business Studies**	Programme: **B.Com. Computer Application**						
Semester	**THIRD**	Course Category Code: **DSC**			*End Semester Exam Type: **TE**			
Course Code	**A20CCT304**	Periods / Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**PROGRAMMING With C++**	4	0	0	4	25	75	100
Prerequisite								

Pedagogy:	Classrooms lecture, tutorials, Group discussion, Seminar, Role play & field work etc
Course Objective	Define Encapsulation, Inheritance and Polymorphism.
	Solve the problem with object oriented approach.
	Analyze the problem statement and build object oriented system model.
	Describe the characters and behavior of the objects that comprise a system.
	Explain function overloading, operator overloading and virtual functions.

Course Outcome	On completion of the course, the students will be able to	BT Mapping (Highest Level)
	CO1 Learn programming of C++.	**K2**
	CO2 Understand Object oriented approach for finding Solutions.	**K2**
	CO3 Create C++ based solutions to Inheritance concepts.	**K3**
	CO4 Learn various concepts Files and Exception Handling techniques.	**K3**
	CO5 Develop the applications using object oriented programming with C++.	**K2**

UNIT-I	**INTRODUCTION TO C++ AND BASICS OF OOPS**	**Periods: 12**
Basic components of a C++ - Program and program structure - Compiling and Executing C++ Program - Basic Concepts of Object-Oriented Programming: Benefits of OOP – Object Oriented Languages – Applications of OOP.		**CO1**
UNIT-II	**PRINCIPLES OF OBJECT ORIENTED PROGRAMMING**	**Periods: 12**
Classes objects - data members - member functions –Access Specifiers- this Pointer - Friends - Friend Functions - Friend Classes - Friend Scope - Static Functions - Constructors and Destructors - Static variables and Functions in class - Operator Overloading in C++ - Overloading Unary Operators - Overloading binary operators.		**CO2**
UNIT-III	**INHERITANCE**	**Periods: 12**
Inheritance in C++ - Types of Inheritance - Multiple Inheritance. Virtual Functions - Polymorphism - Abstract classes.Real time examples in OOPS.		**CO3**
UNIT-IV	**POINTERS, EXCEPTION HANDLING AND FILES**	**Periods: 12**
Pointers - Objects and Pointers - Exception Handling: Exception – Basics – Exception Handling Mechanism – Throwing Mechanism – Catching Mechanism – Re-throwing Exception. Standard input and output operations: C++ IOstream hierarchy - File input and output: Reading a File - Managing I/O Streams - Opening a File – Different Methods - Checking for Failure with File Commands - Checking the I/O Status Flags - Dealing with Binary Files - Useful Functions.		**CO4**
UNIT-V	**TEMPLATES**	**Periods: 12**
Class templates: Implementing a class template - Implementing class template member functions - Using a classtemplate - Function templates - Implementing function templates - Using template functions.		**CO5**

Lecture Periods: 60	**Tutorial Periods: -**	**Practical Periods: -**	**Total Periods: 60**

* TE – Theory Exam

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	1	2	-	1	3	2	1	2
2	1	3	1	-	2	2	2	1
3	-	1	2	2	3	2	1	2
4	1	2	-	1	2	2	1	1
5	1	2	1	-	2	2	3	1

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment	Attendance		
Marks	10		5	5	5	75	100

Department	**Mathematics**	Programme: **B.Com. Computer Application**						
Semester	**Third**	Course Category Code: **IDC**			*End Semester Exam Type: **TE**			
Course Code	**A20CCD303**	Periods / Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**STATISTICS FOR COMPUTER APPLICATION**	**3**	**0**	**0**	**3**	**25**	**75**	**100**

Prerequisite	Basic knowledge on computing Statistics Problems
Course Objectives	To be conversant with the computation of measures of descriptive statistics
	To understand the concept of correlation and regression and their application in business.
	To understand the concept of test of hypothesis and design of experiments
	To be familiar with the relevance and need of the index number in measuring economic changes.
	To understand the importance and model of time series.

Course Outcome	**On completion of the course, the students will be able to**		BT Mapping (Highest Level)
	CO1	Solve problems related to central tendency and measures of dispersion.	**K3**
	CO2	Demonstrate the Application of correlation and regression analysis.	**K3**
	CO3	Apply the concept of testing of small samples .	**K3**
	CO4	Apply the index number techniques in business.	**K3**
	CO5	Conduct Time Series Analysis.	**K3**

UNIT-I	**MEASURES OF CENTRAL TENDENCY AND DISPERSION**	**Periods: 9**	
Measures of central Tendency: Arithmetic Mean – Median – Mode - Empirical relation between Mean, Median and Mode. Measure of Dispersion: Range and Coefficient of range - Standard Deviation - Co-efficient of variation.			**CO1**
UNIT-II	**CORRELATION AND REGRESSION ANALYSIS**	**Periods: 9**	
Karl Pearson's co-efficient of correlation - spearman's rank correlation coefficient - Regression analysis - simple regression equations			**CO2**
UNIT-III	**TEST OF HYPOTHESIS AND DESIGN OF EXPERIMENTS**	**Periods: 9**	
Small samples: Test based on chi square test, t test and F test - Analysis of variance: One-way classifications and Two-way classifications:			**CO3**
UNIT-IV	**INDEX NUMBERS**	**Periods: 9**	
Index number – problems in the construction of index numbers – methods of constructing index numbers – simple and weighted index numbers – Laspeyre's, Paasche's, Bowley's and Fisher's Index Number – Tests of an Ideal Index Number – Uses of index numbers.			**CO4**
UNIT-V	**TIME SERIES ANALYSIS**	**Periods: 9**	
Time Series – Importance – Components: Secular Trends, Seasonal Variations, Cyclical Fluctuations, Irregular Variations – Models of Time Series: Free-hand, Semi-Average, Moving Average, and Fitting Mathematical Curve methods			**CO5**

Lecture Periods: 45	**Tutorial Periods:**	**Practical Periods: -**	**Total Periods: 45**

Text Books

1. S.C. Gupta, "Fundamentals of Statistics", Himalaya Publishing House, 7th Edition, 2018.
2. S.P. Gupta, "Business Statistics", Sultan Chand & Sons, 11th Edition, 2019.
3. R.S.N. Pillai & Bagawathi, "Statistics – Theory & Practice", S. Chand Publishing, 8th Edition, 2018.

Reference Books

1. Richard Levin, David S. Rubin, "Statistics for Management", Pearson Education, 8th Edition, 2017.
2. Gupta. S. P., "Statistical Methods", Sultan Chand & Sons, 46th Edition, 2021.

3. Srivatsava. T.N. and Shailaja Rego, "Statistics for Management", Tata Mc Graw Hill, 3rd Edition, 2008.
4. Gupta. S. P., Gupta. P.K and Manmohan, "Business Statistics and Operations Research", Sultan Chand & Sons, 5th Edition, 2011.
5. Hooda, R. P., "Statistics for Business and Economics", Vikas Publishing House, 5th Edition, 2013.

Web References

1. https://www.icai.org/post/sm-foundation-p3-may2021onwards
2. https://icmai.in/upload/Students/Syllabus-2012/Study_Material_New/Foundation-Paper4-Revised.pdf
3. https://statlearning.class.stanford.edu
4. www.mit.edu

* TE – Theory Exam

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	3	3	3	3	3	3	3	3
2	3	3	3	3	3	3	3	3
3	3	2	3	3	3	3	3	3
4	2	3	3	2	3	3	2	3
5	3	3	3	2	3	3	2	3

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment	Attendance		
Marks	10		5	5	5	75	100

Department	**Business Studies**	Programme: **B.Com. Computer Application**						
Semester	**THIRD**	Course Category Code: **DSE**			*End Semester Exam Type: **TE**			
Course Code	**A20CCE301**	Periods / Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**BASICS OF DATA SCIENCE**	**3**	**0**	**0**	**3**	**25**	**75**	**100**

Prerequisite	Basic Knowledge on Data Science	
Course Objectives	Understand Data Scientist's Role in the analysis Process	
	Explain various mathematical concepts for Data Science	
	Identify distribution properties of data using statistical concepts.	
	Evaluate models for multiple environments.	
	Interpret multiple techniques for solving Data science applications	
Course Outcome	**On completion of the course, the students will be able to**	BT Mapping (Highest Level)
	CO1 Describe the significance of data science and understand the Data Science process.	**K1**
	CO2 Explain how data is collected, managed and stored for data science	**K2**
	CO3 Build, and prepare data for use with a variety of statistical methods and models	**K2**
	CO4 Analyze Data using various Visualization techniques.	**K3**
	CO5 Choose contemporary models, such as machine learning, AI, techniques to solve practical problems	**K3**

UNIT-I	**Introduction To Data Science**	**Periods: 9**
Definition, Big Data and Data Science Hype, Datafication , Data Science Profile, Meta-Definition, Data Scientist, Statistical Inference, Populations and Samples, Populations and Samples of Big Data, Big Data Can Mean Big Assumptions, Modeling, Philosophy of Exploratory Data Analysis, The Data Science Process , A Data Scientist's Role in this Process Case Study: RealDirect		**CO1**
UNIT-II	**Data Munging**	**Periods: 9**
Mathematical Preliminaries: Probability,Descriptive Statistics, Correlation Analysis.Data Munging: Properties of Data, Languages for Data Science, Collecting Data, Cleaning Data, Crowdsourcing.		**CO2**
UNIT-III	**Scores and Rankings, Statistical Analysis**	**Periods: 9**
Scores and Rankings: Developing Scoring Systems, Z-scores and Normalization, Advanced Ranking Techniques Statistical Analysis: Sampling from Distributions, Statistical Distributions, Statistical Significance, Permutation Tests and P-values		**CO3**
UNIT-IV	**Visualizing Data and Mathematical Models**	**Periods: 9**
Visualizing Data: Exploratory Data Analysis, Developing a Visualization Aesthetic, Chart Types, Great Visualizations Mathematical Models: Philosophies of Modeling, A Taxonomy of Models, Baseline Models, Evaluating Models, Evaluation Environment		**CO4**
UNIT-V	**Supervised Learning:**	**Periods: 9**
Supervised Learning: Linear Regression, Better Regression Models, Regression as Parameter Fitting, Simplifying Models through Regularization Classification and Logistic Regression, Issues in Logistic Classification, Naive Bayes, Decision Trees Classifiers		**CO5**

Lecture Periods: 45	**Tutorial Periods: -**	**Practical Periods: -**	**Total Periods: 45**

Text Books

1. Steven S. Skiena, "The Data Science Design Manual", Springer 2017.
2. Rachel Schutt & O'neil, "Doing Data Science", Straight Talk from The Frontline O'REILLY, ISBN:978-1-449-35865-5, 1st edition, October 2013

3. R Programming for Data Science, Roger D. Peng, LeanPub, 2015.

Reference Books

1. Joel Grus," Data Science from Scratch" First Edition, April 2015 2.
2. Gareth James, Daniela Witten, Trevor Hatie, RoberstTibhirani , "An Introduction to Statistical Learning-with Applications in R", 2013
3. Jure Leskovek, Anand Rajaraman and Jeffrey Ullman. Mining of Massive Datasets. v2.1, Cambridge University Press. 2 edition (30 September 2014)

Web References

1. "Data science for engineers" https://nptel.ac.in/noc/courses/noc20/SEM1/noc20-cs28
2. https://www.guru99.com/data-science-tutorial.html
3. https://www.geeksforgeeks.org/data-science-fundamentals/
4. https://www.mygreatlearning.com/blog/what-is-data-science/
5. https://www.upgrad.com/blog/basic-concepts-data-science/

* TE – Theory Exam

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	3	3	3	3	3	3	3	3
2	3	2	3	3	3	3	3	3
3	2	3	2	3	3	3	1	2
4	3	3	3	3	3	3	3	3
5	3	3	1	1	3	1	3	2

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment	Attendance		
Marks	10		5	5	5	75	100

Department	**Business Studies**	Programme: **B.Com. Computer Application**						
Semester	**THIRD**	Course Category Code: **DSC**			*End Semester Exam Type: **LE**			
Course Code	**A20CCL302**	Periods / Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**PROGRAMMING WITH C++ LAB**	0	0	4	2	50	50	100
Prerequisite								
Pedagogy:	Classrooms lecture, tutorials, Group discussion, Seminar, Role play & field work etc							
Course Objective	To introduce the concepts of Basic Object Oriented concepts and Programming Basics.							
	To gain insight into the Functions and Array usages using C++.							
	To understand in depth about the Classes and Objects.							
	To study the Operator overloading and Inheritance concepts.							
	To acquaint the Files and Exception Handling concepts.							

Course Outcome	On completion of the course, the students will be able to		BT Mapping (Highest Level)
	CO1	Understand the Object Oriented concepts.	**K2**
	CO2	Understand the Functions and Arrays	**K2**
	CO3	Construct the Classes and Objects.	**K3**
	CO4	Explain the Operator overloading and Inheritance concepts.	**K3**
	CO5	Describe Files and Exception Handling Methods.	**K2**

List of Exercises

Write C++ Programs for the followings:

1. Class Declarations, Definition, and Accessing Class Members.
2. Constructor, parameterized constructor and copy constructors.
3. Friend Function and Friend Class.
4. Function Overloading and Constructor Overloading.
5. Operator Overloading.
6. Inheritances.
7. Virtual Classes and Abstract Classes.
8. Exception Handling.
9. IOStream, IStream, Ostream classes and their usages.
10. FileStream Operations.
11. Template Based Program to Sort the Given List of Elements.

Lecture Periods: -	**Tutorial Periods: -**	**Practical Periods: 60**	**Total Periods: 60**

* LE – Lab Exam

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	3	1	-	-	1	2	-	2
2	2	2	1	-	-	2	1	1
3	-	1	1	2	1	2	2	2
4	1	2	-	1	1	3	1	1
5	1	2	1	1	-	2	3	1

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)			End Semester Examination (ESE) Marks	Total Marks
	Model Exam	Record	Attendance		
Marks	30	10	10	50	100

Department	**Business Studies**	Programme: **B.Com. Computer Application**						
Semester	**THIRD**	Course Category Code: **DSE**			*End Semester Exam Type: **TE**			
Course Code	**A20CCE302**	Periods / Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**SYSTEM SOFTWARE CONCEPTS**	**3**	**0**	**0**	**3**	**25**	**75**	**100**

Prerequisite	Concept of System Software	
Course Objectives	To understand the relationship between system software and machine architecture	
	To understand the processing of an HLL program for execution on a computer.	
	To know the design and implementation of assemblers, macro processor, linker and Compiler.	
	To have an understanding of loader, system software tools	
	To have an understanding of loader, system software tools	
Course Outcome	**On completion of the course, the students will be able to**	BT Mapping (Highest Level)
	CO1 Be able to compare various system software related to the given system	**K3**
	CO2 Be able to understand the concepts required to develop the system Software	**K3**
	CO3 Be able to make proper use of software tools	**K3**
	CO4 Understand design and implementation of assemblers, macro processor, linker and Compiler	**K3**
	CO5 Acquire Knowledge on loader, system software tools	**K3**

UNIT-I	**Introduction to System Software and software tools :**	**Periods: 9**	
Language Processors: Introduction - Language Processing Activities - Fundamentals of Language Processing & Language Specification - Language Processor Development Tools. Data Structures for Language Processing: Search Data structures - Allocation Data Structures. Software Tools: Software Tools for Program Development – Editors - Debug Monitors - Programming Environments - User Interfaces.			**CO1**
UNIT-II	**Assemblers**	**Periods: 9**	
Elements of Assembly Language Programming: A Simple Assembly Scheme - Pass Structure of Assemblers - Design of a Two Pass Assembler - A single pass Assembler for IBM PC.			**CO2**
UNIT-III	**Macros and Macro Processors**	**Periods: 9**	
Macro Definition and Call - Macro Expansion - Nested Macro Calls - Advanced Macro Facilities - Design of a Macro Preprocessor.			**CO3**
UNIT-IV	**Interpreters and Introduction of Compilers**	**Periods: 9**	
Interpreters: Use and overview of interpreters - Pure and impure interpreters.Phases of the Compiler Introduction of scanning and parsing - Aspects of compilation			**CO4**
UNIT-V	**Linkers and Loaders**	**Periods: 9**	
Introduction to linkers - Relocation and Linking Concepts - Design of a Linker - Self-Relocating Programs - A Linker for MS-DOS - Linking for Overlays and Loaders			**CO5**

Lecture Periods: 45	**Tutorial Periods:**	**Practical Periods: -**	**Total Periods: 45**

Text Books

1. D. M. Dhamdhere, “Systems Programming and Operating Systems”, Second RevisedEdition, Tata McGraw-Hill, 1999.
2. "Compilers: Principles, Techniques, and Tools" by Alfred V. Aho, Monica S. Lam, Ravi Sethi, and Jeffrey D. Ullman.
3. "Modern Operating Systems" by Andrew S. Tanenbaum and Herbert Bos.

Reference Books

1. Leland L. Beck, “System Software – An Introduction to Systems Programming”, 3rd

Edition, Pearson Education Asia, 2000.
2. Santanu Chattopadhyay, “System Software”, Prentice-Hall India, 2007
3. Alfred V. Aho, Monica S. Lam, Ravi Sethi, Jeffrey D. Ullman, “Compilers: Principles, Techniques, and Tools”,2nd Edition, Pearson Education Asia
4. "Systems Programming: Designing and Developing Distributed Applications" by John J. Donovan.

Web References

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2. https://www.siyavula.com/read/za/information-technology/grade-10/basic-concepts-of-system-software/04-basic-concepts-of-system-software
3. https://www.techtarget.com/whatis/definition/system-software
4. https://www.toppr.com/guides/computer-science/computer-fundamentals/software-concepts/system-software/

* TE – Theory Exam

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	3	3	3	3	3	3	3	3
2	3	3	3	3	3	3	3	3
3	3	2	3	3	3	3	3	3
4	2	3	3	2	3	3	2	3
5	3	3	3	2	3	3	2	3

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment	Attendance		
Marks	10		5	5	5	75	100

Department	**BUSINESS STUDIES**			Programme: **B.Com. Computer Application**			
Semester	**THIRD**			Course Category Code: **SEC**		End Semester Exam Type: - LE	
Course Code	**A20CCS302**	Periods / Week			Credit	Maximum Marks	
		L	T	P	C	CAM	ESE	TM
Course Name	**Accounting Using Software**	**0**	**0**	**4**	**2**	**50**	**50**	**100**
Course Objectives	To make the students familiar with the operations of Computerised Accounting Software							
Course Outcomes	***On completion of the course, the students will be able to***						BT Mapping (Highest Level)	
	CO1	Demonstrate their understanding of working with Accounting Software					**K3**	
	CO2	Prepare different kinds of reports from the Accounting Software					**K3**	
	CO3	Generate the Financial Statements using the Accounting Software					**K3**	

EXERCISES

1. Getting started with an Accounting Software and Creation of Company
2. Configuring and Altering Features of Company
3. Chart of Accounts – Understanding of different Ledger Groups
4. Ledger Creation – Single Ledger – Multi Ledger – Display and Deletion
5. Understanding and Creating Inventory Masters
6. Creation of Stock Items and Godown
7. Preparation of Stock Reports
8. Recording Transactions – Voucher Creation (Different types of vouchers)
9. Accounts Receivables and Accounts Payables
10. MIS Reports
11. Generating Financial Statements – Balance Sheet, Profit and Loss Account, and CashFlow Statement
12. Performing Analysis of Financial Statements using Accounting Ratios

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	1	1	-	-	1	2	1	2
2	1	2	1	-	-	2	1	1
3	-	1	1	2	1	2	2	2
4	1	1	-	1	1	3	1	1
5	1	1	1	-	1	2	2	1

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)			End Semester Examination (ESE) Marks	Total Marks
	Model Exam	Record	Attendance		
Marks	30	10	10	50	100

Department	**BUSINESS STUDIES**	Programme: **B.Com. Computer Application**						
Semester	**THIRD**	Course Category Code: **DSE**			End Semester Exam Type: **TE**			
CourseCode	**A23CCE303D**	Periods/Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**BUSINESS STRATEGY**	**3**	**0**	**0**	**3**	**25**	**75**	**100**
Prerequisite	Basic Knowledge on Business Strategy							

Course Objectives	To gain knowledge about business policy and strategic in Business	
	To learn Strategic formulation	
	To make the students understand about the corporate strategy	
	To explain strategic alternatives and growth strategy	
	To be familiar with strategic implementation	

Course Outcomes	***On completion of the course, the students will be able to***		BT Mapping (Highest Level)
	CO1	Understand the concepts of Business policy and strategic management	**K3**
	CO2	Explain the concept of strategic formulation	**K3**
	CO3	Develop their skills in corporate Strategy	**K3**
	CO4	Demonstrate their ability in growth strategy	**K3**
	CO5	Understand the concept of strategic formulation	**K3**

UNIT-I	**BUSINESS POLICY AND STRATEGIC MANAGEMENT**	**Periods:10**	
Definition to Business Policy-Nature, Scope and significance of business policy-Elements and Process of business policy-Factors determining business policy - Definition to strategic management-Nature, Scope and Significance of Strategic Management-Elements of Strategic Management-Process of strategic management-Components of strategic management-Functions of strategic management.			**CO1**
UNIT-II	**STRATEGIC FORMULATION**	**Periods:8**	
Meaning of strategic formulation-Vision, Mission and purpose of strategy-Objectives and Goals of strategic formulation-Developing strategic perspectives-Fourteen processes of strategic planning.			**CO2**
UNIT-III	**BUSINESS ENVIRONMENT AND CORPORATE STRATEGY**	**Periods:9**	
Meaning of Business Environment-Components of Business Environment (Internal Environment and External Environment), Environmental Scanning-SWOT Analysis – Corporate strategy Nature and scope – Project life cycle – Portfolio analysis – Simple case studies			**CO3**
UNIT-IV	**STRATEGIC ALTERNATIVES AND GROWTH STRATEGY**	**Periods: 9**	
Meaning of strategic alternatives-Generating strategic alternatives-Classifying strategic alternatives-Horizontal expansion and diversification- Classification of strategies based on the desired rate of growth-Mergers and Acquisitions – Amalgamation – joint venture – Simple case studies			**CO4**
UNIT-V	**STRATEGIC IMPLEMENTATION**	**Periods:09**	
Implementation of strategy – Leadership and organizational climate – Planning and controlling – Evaluation and control - Simple case studies			**CO5**

Lecture Periods:45	**Tutorial Periods:0**	**Practical Periods:-**	**Total Periods:45**

Text Books

1. Azharkazmi, "Business policy and strategic management", Tata McGraw Hill Publishers, 4th Edition 2019.
2. L. M. Prasad, "Business policy and strategic management", Sultan Chand & Sons, 6th Edition.
3. Fred. R. David, "Strategic management", Prentice Hall International, 5th Edition 2018.

Reference Books

1. CA. MeetaMangal, "Strategic Management", Commercial Law Publishers, 9th Edition, 2019
2. Charles W.L. Hill, Gareth r. Jones, "Strategic Management: An Integrated Approach", Cengage Learning India

Pvt. Ltd, 12th Edition, 2020
3. John A. Pearce, Richard B. Robinson, Amrita Mital, "Strategic Management", Aitbs Publishers 7th Edition, 2015.

Web References

1. http://www.rjspm.com/PDF/Strategic-Management-Notes-PDF.pdf
2. https://www.geektonight.com/strategic-management-notes-pdf/
3. https://www.academia.edu/27553954/Strategic_Management_Notes_Power_Point_Chapter_1
4. https://www.slideshare.net/KiruthikaRuthi/strategic-management-full-notes
5. http://studentzonengasce.nmims.edu/content/Strategic%20Management/Strategic_Management_lBdA3TJvQg.pdf

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3
1	3	3	3	3	3	3	3	3
2	3	3	3	3	3	3	3	3
3	3	2	3	3	2	3	3	3
4	2	3	2	2	2	2	3	2
5	3	3	3	3	3	3	3	3

Correlation Level:

High	Moderate	Low
3	2	1

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	10		5	5	5	75	100

ANNEXURE 3

SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE
(An Autonomous Institution)
(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
(Accredited by NBA-AICTE, New Delhi, ISO 9001:2000 Certified Institution &
Accredited by NAAC with "A" Grade)
Madagadipet, Puducherry - 605 107

SCHOOL OF ARTS AND SCIENCE

BACHELOR OF COMMERCE
IN
COMPUTER APPLICATION

ACADEMIC REGULATIONS 2023
(R-2023)

CURRICULUM

COLLEGE VISION AND MISSION

Vision

To be globally recognized for excellence in quality education, innovation and research for the transformation of lives to serve the society.

Mission

M1: Quality Education:

To provide comprehensive academic system that amalgamates the cutting-edge technologies with best practices.

M2: **Research and Innovation:**

To foster value-based research and innovation in collaboration with industries and institutions globally for creating intellectuals with new avenues.

M3: Employability and Entrepreneurship:

To inculcate the employability and entrepreneurial skills through value and skill-based training.

M4: Ethical Values:

To instill deep sense of human values by blending societal righteousness with academic professionalism for the growth of society.

DEPARTMENT OF BUSINESS STUDIES

VISION AND MISSION

Vision

To explore value-based Accounting and Management Education through innovative and flexible curriculum that enables to decipher and adapt in multidisciplinary academic and research environments and the society at large.

Mission

M1: Knowledge Sharing:

To transform lives through knowledge creation and sharing

M2: **Collaborative Learning:**

To leverage the resources to provide experiential learning, immersion and other collaboration opportunities.

M3: Career Development:

To provide the best professional development and career growth opportunities to the students.

M4: Consistent Improvement:

To continuously improve through stakeholder engagement, industry relations, and assurance of learning across multiple domains.

Programme Outcome (PO)

PO1: Acquire the essential knowledge on the successful prospects of business.

PO2: Understand the practical issues and challenges that the trade world encounters.

PO3: Apply concepts, principles and procedures in transacting business effectively.

PO4: Gain analytical skill in undertaking commercial ventures and evaluate the pros and cons of embarking on trade and trade related activities based on their in-depth knowledge.

PO5: Be employable, exhibit entrepreneurial drive and be a model of principled and ethically sound business professionals.

Program Specific Outcomes (PSO)

PSO1: Apply the various business management and computer applications concepts to solve the real-world problems.

PSO2: Acquire the knowledge on object-based computer applications in various business fields.

PSO3: Enrich the practical knowledge on applications of accounting and programming languages in business ventures.

BACHELOR OF COMMERCE (COMPUTER APPLICATION)

STRUCTURE FOR UNDERGRADUATE PROGRAMME

Sl. No	Course Category	Breakdown of Credits
Part I		
1	Modern Indian Language (MIL)	06
Part II		
2	English (ENG)	06
Part III		
3	Discipline Specific Core Courses (DSC)	83
4	Discipline Specific Elective Courses (DSE)	12
5	Inter-Disciplinary courses (IDC)	13
6	Skill Enhancement Courses (SEC)	12
7	Employability Enhancement Courses (EEC*)	0
8	Ability Enhancement Courses (AEC)	04
9	Open Electives (OE)	04
10	Online Certification Course (OCC*)	0
11	Extension Activity (EA*)	0
Total		**140**

SCHEME OF CREDIT DISTRIBUTION – SUMMARY

Sl. No.	Course Category	Credits per Semester						Total Credits
		I	II	III	IV	V	VI	
Part I								
1	Language (MIL)	3	3					06
Part II								
2	English (ENG)	3	3					06
Part III								
3	Discipline Specific Core Courses (DSC)	13	9	14	18	13	16	83
4	Discipline Specific Elective Courses (DSE)			3	3	3	3	12
5	Inter-Disciplinary Courses (IDC)	3	7			3		13
6	Skill Enhancement Courses (SEC)	2	2	2	2	2	2	12
7	Employability Enhancement Courses (EEC*)	0	0	0	0			0
8	Ability Enhancement Courses (AEC)	1	1	1	1			04
9	Open Electives (OE)			2	2			04
10	Online Certification Course (OCC*)					0		0
11	Extension Activity (EA*)		0					0
Total		**25**	**25**	**22**	**26**	**21**	**21**	**140**

* EEC, OCC, EA will not be included for the computation of "Total of Credits" as well as "CGPA".

SEMESTER – I										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part I										
Theory										
1	A23FRT101C	French - I	MIL	3	0	0	3	25	75	100
	A23TAT101C	Tamil - I								
Part II										
Theory										
2	A23BET102C	Business English - I	ENG	3	0	0	3	25	75	100
Part III										
Theory										
3	A23CST101C	Financial Accounting for Business	DSC	3	1	0	4	25	75	100
4	A23BAD101C	Managerial Economics	IDC	3	0	0	3	25	75	100
5	A23CPT101C	Problem Solving using C	DSC	4	0	0	4	25	75	100
6	A23BAT102C	Business Management and Practices	DSC	3	0	0	3	25	75	100
Practical										
7	A23CPL101C	Programming in C Lab	DSC	0	0	4	2	50	50	100
Skill Enhancement Course										
8	A23ENSA01C	Communication Skill	SEC	0	0	4	2	100	0	100
Ability Enhancement Course										
9	A23AETA02C	Environmental Studies	AEC	1	0	0	1	100	0	100
Employability Enhancement Course										
10	A23CCC101D	Certification Course - I*	EEC	0	0	4	0	100	0	100
							25	500	500	1000

** Employability Enhancement Course are to be selected from the list in Annexure I*

SEMESTER – II										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part I										
Theory										
1	A23FRT202C	French - II	MIL	3	0	0	3	25	75	100
	A23TAT202C	Tamil - II								
Part II										
Theory										
2	A23BET202C	Business English - II	ENG	3	0	0	3	25	75	100
Part III										
Theory										
3	A23CMT203C	Advanced Financial Accounting	DSC	3	1	0	4	25	75	100
4	A23BAD202C	Legal Aspects of Business	IDC	3	0	0	3	25	75	100
5	A23MADA01C	Business Mathematics and Statistics	IDC	3	1	0	4	25	75	100
6	A23CPT203C	Fundamentals of Information Technology	DSC	3	0	0	3	25	75	100
Practical										
7	A23BFL201C	Spreadsheets Lab	DSC	0	0	4	2	50	50	100
Skill Enhancement Course										
8	A23ENSA02C	Soft Skills	SEC	0	0	4	2	100	0	100
Ability Enhancement Course										
9	A23AETA01C	Public Administration	AEC	1	0	0	1	100	0	100
Employability Enhancement Course										
10	A23CCC202D	Certification Course - II*	EEC	0	0	4	0	100	0	100
Extension Activity										
11	A23EAS201C	National Service Scheme	EA	0	0	2	0	100	0	100
							25	600	500	1100

** Employability Enhancement Course are to be selected from the list in Annexure I*

SEMESTER – III										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part III										
Theory										
1	A23CMT305C	Corporate Accounting	DSC	3	1	0	4	25	75	100
2	A23CPT305C	Programming in C++	DSC	4	0	0	4	25	75	100
3	A23BAT307C	Financial Management	DSC	3	1	0	4	25	75	100
4	A23CCE301D	Basics of Data Science	DSE	3	0	0	3	25	75	100
	A23CCE302D	System Software Concepts								
	A23CCE303D	Business Strategy								
5	A23XXO30XC	Open Elective - I	OE	2	0	0	2	25	75	100
Practical										
6	A23CPL305C	Programming in C++ Lab	DSC	0	0	4	2	50	50	100
Skill Enhancement Course										
7	A23CCS301D	Accounting using Software	SEC	0	0	4	2	100	0	100
Ability Enhancement Course										
8	A23AETA04C	Value Education	AEC	1	0	0	1	100	0	100
Employability Enhancement Course										
9	A23CSC303D	Certification Course - III*	EEC	0	0	4	0	100	0	100
							22	475	425	900

** Employability Enhancement Course are to be selected from the list in Annexure I*

SEMESTER – IV										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part III										
Theory										
1	A23CMT409C	Management Accounting	DSC	3	1	0	4	25	75	100
2	A23CPT406C	Problem Solving using JAVA	DSC	4	0	0	4	25	75	100
3	A23CPT407C	Database Management Systems	DSC	3	0	0	3	25	75	100
4	A23CME404D	Basics of Stock Market	DSE	3	0	0	3	25	75	100
	A23CME405D	Insurance and Risk Management								
	A23CME406D	Financial Markets and Services								
5	A23XXO40XC	Open Elective - II	OE	2	0	0	2	25	75	100
Practical										
6	A23CPL406C	Programming using JAVA Lab	DSC	0	0	4	2	50	50	100
7	A23CPL407C	Database Management System Lab	DSC	0	0	4	2	50	50	100
Internship										
8	A23CCN401D	Internship / In-Plant Training	DSC	0	0	6	3	40	60	100
Skill Enhancement Course										
9	A23MASA01C	Quantitative Aptitude and Logical Reasoning	SEC	0	0	4	2	100	0	100
Ability Enhancement Course										
10	A23AETA03C	Indian Constitution	AEC	1	0	0	1	100	0	100
Employability Enhancement Course										
11	A23CCC404D	Certification Course - IV*	EEC	0	0	4	0	100	0	100
							26	565	535	1100

** Employability Enhancement Course are to be selected from the list in Annexure I*

SEMESTER – V										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part III										
Theory										
1	A23CST503C	Income Tax Law and Practice	DSC	3	1	0	4	25	75	100
2	A23CPT508C	Python Programming	DSC	4	0	0	4	25	75	100
3	A23CMT510C	Financial Reporting and Analysis - I	DSC	3	0	0	3	25	75	100
4	A23CME507C	Financial Derivatives	DSE	3	0	0	3	25	75	100
	A23CME508C	Banking and Insurance								
	A23CME509C	Security Analysis and Portfolio Management								
Practical										
5	A23CPL508C	Python Programming and Network Lab	DSC	0	0	4	2	50	50	100
Project										
6	A23BAP503C	Social Responsibility Project	IDC	0	0	6	3	40	60	100
Skill Enhancement Course										
7	A23BAS502C	Business Research Methods	SEC	0	0	4	2	100	0	100
Online Certification Course										
8	A23CCM501D	MOOC - Certificate Course	OCC	0	0	4	0	Successful Completion		
							21	290	410	700

SEMESTER – VI										
Sl. No.	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
Part III										
Theory										
1	A23CMT613C	Financial Reporting and Analysis - II	DSC	3	0	0	3	25	75	100
2	A23CPT609C	Artificial Intelligence and Machine Learning	DSC	4	0	0	4	25	75	100
3	A23CST607C	Goods and Services Tax	DSC	3	1	0	4	25	75	100
4	A23CCE604D	Ethical Hacking	DSE	3	0	0	3	25	75	100
	A23CCE605D	Cyber Security and Digital Forensics								
	A23CME612C	Personal Finance								
Project										
5	A23CCP601D	Project	DSC	0	0	10	5	40	60	100
Skill Enhancement Course										
6	A23BAS603C	Life Skills Development and Mentoring	SEC	0	0	4	2	100	0	100
							21	240	360	600

Annexure - I

EMPLOYABILITY ENHANCEMENT COURSES - CERTIFICATION COURSES

(Not included in CGPA and Credits computation)

Certification Course - I, II, III & IV

(To be chosen from the below list but not limited)

Sl. No.	Course Title
1	MS Office
2	Advanced Excel
3	Tally
4	Digital Marketing
5	Internet of Things
6	Block Chain
7	Artificial Intelligence
8	Investment & trading Strategies
9	Foundation of Stock Market Investing
10	Google Analytics

ANNEXURE 4
FIRST SEMESTER SYLLABI

Department	**French**			Programme : **B.Com CA**				
Semester	**I**			Course Category Code: **MIL**		*End Semester Exam Type: **TE**		
Course Code	**A23FRT101C**			Periods/Week			Credit	Maximum Marks
				L	T	P	C	CAM	ESE	TM
Course Name	**FRENCH I**			**3**	**0**	**0**	**3**	**25**	**75**	**100**
(Common to B.A.., B.SC., BBA,B.Com and BCA Programmes)										
Prerequisite	French language in class 12th									
Course Objectives	To introduce the basics of French language to the students									
	To enable the students to read, understand and write simple sentences									
	To help them to grasp the fundamentals of French grammar									
	To make the students to formulate correct phrases									
	To introduce them French and Francophone countries and their cultures									
Course Outcomes	***On completion of the course, the students will be able to***							BT Mapping (Highest Level)		
	CO1	Have a general understanding of the language						**K1**		
	CO2	Analyze and interpret simple phrases written in French						**K2**		
	CO3	Have the basics of French grammar						**K3**		
	CO4	Communicate and ask basic questions in French language						**K4**		
	CO5	Appreciate the diversity and multiplicity of French and Francophone world						**K5**		
UNIT-I	**S'introduire**						**Periods:09**			
1. Le francais, les Francais, la France 2. Je m'appelle Elise, et vous ? 3. Saluer, se presenter, remercier 4. Vous dansez ? D'accord 5. Interroger quelqu'un et donner des informations								**CO1**		
UNIT-II	**Demander des questions sur quelqu'un**						**Periods:09**			
1. Monica, Yokiko et compagnie 2. Dire ce qu'on l'aime 3. Les voisins de Sophie 4. Demander des informations sur quelqu'un								**CO2**		
UNIT-III	**Expliquer quelque chose**						**Periods:09**			
1. Tu vas au Luxembourg ? 2. Dire où on va, dire d'où on vient 3. Nous venons pour l'inscription 4. A vélo, en train, en avion… 5. Expliquer un itinéraire, proposer quelque chose								**CO3**		
UNIT-IV	**Poser des questions et commander**						**Periods:09**			
1. Pardon monsieur, le BHV s'il vous plait 2. Au marché 3. Acheter quelque chose, demander le prix 4. On déjeune ici ? 5. Aller au restaurant, comprendre un menu								**CO4**		

UNIT-V	**Inviter et proposer quelque chose**	**Periods:09**
1. On va chez ma copine ? 2. Proposer quelque chose 3. Demander et donner des informations sur quelqu'un 4. Chez Susana 5. Etre invité chez quelqu'un		**CO5**

Lecture Periods: 45	**Tutorial Periods:**	**Practical Periods:-**	**Total Periods: 45**

Text Books

1. Sylvie Poisson Quinton and Michèle Maheo, *Festival 1 Méthode de Français*, CLE editions, 2009
2. Nathalie Hirschsprung and Tony Tricot, *Cosmopolite 1*, Hachette editions, 2017
3. Caroline Veltcheff and Stanley Hilton, *Preparation du Delf A1*, Hachette editions, 2011

Reference Books

1. Régine Mérieux and Yves Loiseau, *Latitudes 1*, Didier editions, 2017
2. Annie Berthet and Emmanuelle Daili, *Alter Ego + A1*, Hachette editions, 2012
3. Bruno Giradeau, *Réussir le Delf A1*, Didier editions, 2019
4. Richard Lescure, *Delf A1 150 Activités,* Langers and CLE, 2005
5. Manisha Verma, *La grammaire élémentaire française*, Notion Press, 2010

Web References

1. https://www.tv5monde.com
2. https://www.rfi.fr
3. https://www.lemonde.fr
4. https://www.frenchpodcasts.com
5. https://www.coursera.org

* TE – Theory Exam, LE – Lab Exam

COs/POs/PSOs Mapping

COs	**Program Outcomes (PO)**					**Program Specific Outcomes (PSOs)**		
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**
1	3	3	3	3	3	3	3	3
2	3	3	3	3	2	3	3	3
3	3	3	3	3	3	3	2	3
4	2	3	2	2	3	3	3	3
5	3	3	3	3	3	3	3	3

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

Assessment	**Continuous Assessment Marks (CAM)**					**End Semester Examination (ESE) Marks**	**Total Marks**
	CAT 1	**CAT 2**	**Model Exam**	**Assignment***	**Attendance**		
Marks	10		5	5	5	75	100

***** Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

Department	**TAMIL**	Programme: **B.Com CA**						
Semester	**First**	Course Category Code: **MIL**			*End Semester Exam Type: **TE**			
CourseCode	**A23TAT101C**	Periods/Week			Credit	MaximumMarks		
		L	T	P	C	CAM	ESE	TM
Course Name	**TAMIL – I**	**3**	**0**	**0**	**3**	**25**	**75**	**100**
(Common to **B.A, B.Sc., BBA., B.COM., and BCA., Programmes**)								

Prerequisite	பன்னிரெண்டாம் வகுப்பில் தமிழை ஒரு பாடமாகப் பயின்றிருக்க வேண்டும்.
Course Objectives	• செவ்விலக்கிய தன்மை கொண்ட தமிழ்மொழியின் சிறப்பினை எடுத்துரைப்பதாக இப்பாடத்திட்டம் அமைக்கப்பட்டுள்ளது.
	• இரண்டாயிரம் ஆண்டுகாலத் தமிழின் தொன்மையையும் வரலாற்றையும் அதன் விழுமியங்களையும் பண்பாட்டையும் எடுத்துரைப்பதாக இப்பாடத்திட்டம் அமைக்கப்பட்டுள்ளது.
	• தமிழ் இலக்கியம் உள்ளடக்கத்திலும், வடிவத்திலும் பெற்றமாற்றங்கள், அதன் சிந்தனைகள், அடையாளங்கள் ஆகியவற்றைக் காலந்தோறும் எழுதப்பட்ட இக்கியங்களின் வழியாகக் கூறுவதற்கு இப்பாடத்திட்டம் அமைக்கப்பட்டுள்ளது.
	• வாழ்வியல் சிந்தனைகள், ஒழுக்கவியல் கோட்பாடுகள், சமத்துவம், சூழலியல் எனப் பல கூறுகளை மாணவர்களுக்கு எடுத்துரைக்கும் விதத்தில் இப்பாடத்திட்டம் உருவாக்கப்பட்டுள்ளது.
	• சிந்தனை ஆற்றலைப் பெருக்குவதற்குத் தாய்மொழியின் பங்களிப்பினை உணர்த்த இப்பாடத்திட்டம் அமைக்கப்பட்டுள்ளது.

Course Outcome	**On completion of the course, the students will be able to**		BT Mapping (Highest Level)
	CO1	இலக்கியங்கள் உணர்த்தும் வாழ்வியல் நெறிமுறைகளைப் பேணி நடத்தல்.	**K3**
	CO2	நமது எண்ணத்தை வெளிப்படுத்தும் கருவியாகத் தாய்மொழியைப் பயன்படுத்துதல்.	**K3**
	CO3	தகவல் தெடர்புக்குத் தாய்மொழியின் முக்கியத்துவத்தை உணர்தல்.	**K2**
	CO4	தாய்மொழியின் சிறப்பை அறிதல்.	**K2**
	CO5	இலக்கிய இன்பங்களை நுகரும் திறன்களை வளர்த்தல்.	**K3**

UNIT-I	**இக்கால இலக்கியம்- மரபுக்கவிதைகள்- புதுக்கவிதைகள்- சிறுகதை**	**Periods: 09**	
மரபுக்கவிதைகள் - பாரதியார்-வெள்ளிப் பனிமலையின் மீதுலாவுவோம்... (13 பாடல்கள்)- பாரதிதாசன்-புரட்சிக்கவி (பேரன்புக் கொண்டவரே...முதல் - கவிஞனுக்கும் காதலிக்கும் மீட்சிதந்தார் வரை) தங்கப்பா - பனிப்பாறை நுனிகள் - வாழ்க்கை ஓவியம். **புதுக்கவிதைகள்-**அப்துல் ரகுமான் - வடலூரும் வார்தாவும் - யுகி - உயிர்ப்பு (இயற்கையின் எலும்பு முறிப்பு) – **சிறுகதை** -ஆர்.சூடாமணி - சாம்பலுக்குள்.			**CO1**
UNIT-II	**நாடகம் -உரைநடை- நாவல்**	**Periods: 09**	
நாடகம் - பிரபஞ்சன் - முட்டை - **உரைநடை** - இரா.வேங்கடாசலபதி - அந்தக் காலத்தில் காப்பி இல்லை –**நாவல் -** இரா.முருகவேள் - மிளிர்கல்			**CO2**
UNIT-III	**பக்தி இலக்கியம் -சைவம்- வைணவம் - கிறித்துவம் - இஸ்லாம்**	**Periods: 09**	
பக்தி இலக்கியம் -சைவம்-திருஞானசம்பந்தா - முதல் திருமுறை - தோடுடையசெவியன்...பாடல் மட்டும் - திருநாவுக்கரசர் - நான்காம் திருமுறை - கூற்றாயினவாறு...பாடல் மட்டும்- சுந்தரர் - ஏழாம் திருமுறை - பித்தாபிறைசூடி...பாடல் மட்டும் - மாணிக்கவாசகர் - திருவாசகம் - புல்லாய் புழுவாய்...பாடல் மட்டும் - திருமூலர் - திருமந்திரம் - ஆர்க்கும் இடுமின்...பாடல் மட்டும் - காரைக்காலம்மையார்-திருவிரட்டை மணிமாலை - அன்பால் அடைவதெவ்வாறு...பாடல் மட்டும். **வைணவம் -** பொய்கையாழ்வார் - வையம் தகளியாய்...பாடல் மட்டும் -பூதத்தாழ்வார் - அன்பே தகளியாய்...பாடல் மட்டும் - பேயாழ்வார் - திருக்கண்டேன் பொன்மேனி...பாடல் மட்டும் - நம்மாழ்வார் - திருவாய்மொழி - உளன் எனின்...பாடல் மட்டும் - பெரியாழ்வார் - பெரியாழ்வார் திருமொழி - வாக்குத் தூய்மை...பாடல் மட்டும் -ஆண்டாள் - நாச்சியார் திருமொழி– என்பு உருகி இனவேல்...பாடல் மட்டும் - **கிறித்துவம் -** இரட்சண்ய மனோகரம் - ஆவிக்குறுவெந்துயர்...முதல் உனையல்லது பற்றுதோ வரை - **இஸ்லாம் -** குணங்குடி மஸ்தான் சாகிபு– ரகுமான் கண்ணி -அடைத்த மனக்கோட்டை...முதல் என்கண் வரை			**CO3**
UNIT-IV	**சிற்றிலக்கியம் - முத்தொள்ளாயிரம் - உலா- கலம்பகம்- பள்ளு- இடைக்காலப் புலவர்கள்**	**Periods: 09**	
சிற்றிலக்கியம் - முத்தொள்ளாயிரம் - 1.வேரறுகைபம்பிச் சுரையாய்...2.மாலை விலைபகர்வார்... 3.என்னை உரையல் ...எனத் தொடங்கும் பாடல்கள் மட்டும் - **உலா** - குலோத்துங்கசோழன் உலா - தாளை அரவிந்தச் சாதி...முதல் நிலவென்றாள் வரை - **கலம்பகம்** -திருவரங்கக்கலம்பகம் - உருமாறிப் பலபிறப்பும்...முதல் ஆடீர் வாசல் வரை - **பள்ளு -** முக்கூடற்பள்ளு -			**CO4**

நாட்டுவளம் - கறைபட்டுள்ளது...எனத்தொடங்கும் பாடல் மட்டும் -**தூது**-அழகர் கிள்ளைவிடு தூது - இன்சொல்லை.....முதல் உபதேசமாக உரைப்பாய் வரை **இடைக்காலப் புலவர்கள் -** இராமலிங்க அடிகள் - மஹாதேவமாலை–படித்தேன்...முதல் பொய் உலகியல் வரை – வீரமாமுனிவர் திருக்காவலூர்க் கலம்பகம் - தழை–போதவிழ்ப்...எனத்தொடங்கும் பாடல் மட்டும் - மு.முஹம்மதுதஹா - ∴கௌதுமுஹிய்யித்தீன் பிள்ளைத் தமிழ் - வயிறுபுடைக்க உண்கின்றீர்...பாடல் மட்டும்.

UNIT-V	**மொழிப்பயிற்சி-இலக்கிய வரலாறு**	**Periods: 09**

மொழிப்பயிற்சி - 1.வலிமிகும் இடங்கள் ,வலிமிகா இடங்கள்.- 2.அகரவரிசைப்படுத்துதல்.-3.நேர்காணல் - **இலக்கிய வரலாறு -** இக்கால இலக்கியம், பக்தி இலக்கியம், சிற்றிலக்கியம் குறித்த பாடப்பகுதியை ஒட்டியது. **CO5**

Lecture Periods: 45	**Tutorial Periods:-**	**Practical Periods:-**	**TotalPeriods:45**

Text Books

1. **பாரதியார் – பாரதியார் கவிதைகள், Kindle Edition**, Published June 2, 2020.
2. **சிவகுமார். எஸ்., - கொங்குதேர் வாழ்க்கை,** பாடல் தொகுப்பு நூல் - தொகுதி -1 யுனைடெட் ரைட்டர்ஸ், சென்னை -86. முதற்பதிப்பு 2003.
3. **சூடாமணி.ஆர். - தனிமைத் தளிர், தேர்ந்தெடுத்த சிறுகதைகள்,** காலச்சுவடு பதிப்பகம், முதல் பதிப்பு: செப்டம்பர் 2013.
4. **பிரபஞ்சன் - ஜீவநதி (நாடகங்கள்) – கவிதா பப்ளிகேஷன், 8, மாசிலாமணி தெரு, பாண்டிபஜார், தி.நகர், சென்னை -600 017**
5. **முருகவேள். இரா., - மிளிர்கல்,** ஐம்பொழில் பதிப்பகம், திருப்பூர், இரண்டாம் பதிப்பு, 2014.

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1. **வல்லிக்கண்ணன், புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும், ஸ்ரீசெண்பகா பதிப்பகம்**, ஜனவரி,1, 2020.
2. **சிற்பிபாலசுப்பிரமணியம் மற்றும் நீலபத்மநாபன் (ப.ஆசி.) – புதிய தமிழ் இலக்கிய வரலாறு, தொகுதி-1,2,3,** சாகித்திய அகாதெமி, புதுடெல்லி, 2013.
3. **பாக்கியமேரி, வகைமை நோக்கில் தமிழ் இலக்கிய வரலாறு (செம்மை மற்றும் விரிவுப் பதிப்பு),** பாரிநிலையம். சென்னை,
4. **ஆனந்தன், முனைவர்.சு., - தமிழ் இலக்கிய வரலாறு,** கண்மணி பதிப்பகம், திருச்சி-2. இருபத்தி மூன்றாம் பதிப்பு– 2015.
5. **பரந்தாமனார், அ.கி., - நல்ல தமிழ் எழுத வேண்டுமா,** பாரி நிலையம், சென்னை, 1998.

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2. http://www.tamilweb.com
3. http://www.tamilkodal.com
4. www.store.tamillexican.com
5. www.kala.tamilforu.blogspot.com
6. www.noolagam.com

* TE – Theory Exam, LE – Lab Exam

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO 3
1	3	3	3	3	3	3	3	3
2	3	3	3	3	3	3	3	3
3	3	2	3	3	2	3	3	3
4	2	3	2	1	2	2	3	2
5	3	3	3	3	3	3	3	3

Correlation Level: 1: Low, 2: Moderate, 3: High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	10		5	5	5	75	100

***** Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

Department	**ENGLISH**		Programme: **B.Com CA**					
Semester	**FIRST**		Course Category Code: **ENG**			End Semester Exam Type: **TE**		
Course Code	**A23BET102C**		Periods / Week			Credit	Maximum Marks	
			L	T	P	C	CAM	ESE	TM
Course Name	**BUSINESS ENGLISH - I**		**3**	**0**	**0**	**3**	**25**	**75**	**100**
(Common to All Programmes in B.Com and BBA)									
Prerequisite	Basic part-two language, Basic knowledge of Business Vocabulary and Grammar								
Course Objectives	To understand the concept, process, and importance of communication.								
	To gain knowledge about the business communication.								
	To develop skills of effective business communication - both written and oral.								
	To help students to acquaint communication skills in the business world								
	To enhance the presentation and negotiations skills of the students								
Course Outcomes	***On completion of the course, the students will be able to***		BT Mapping (Highest Level)						
	CO1	Gather the basics and importance of communication	**K3**						
	CO2	Can inculcate the basics knowledge in business communication	**K3**						
	CO3	Draft effective business writing with brevity and lucidity	**K3**						
	CO4	Acquire acquaint communication skills in the business world	**K3**						
	CO5	Present an effective oral presentation	**K3**						
UNIT-I	**INTRODUCTION TO BUSINESS COMMUNICATION**		**Periods: 09**						
Definition of Business Communication - Communication Process, Communication Function, and its Objectives - Essentials of Good Communication - Barriers in Communications and its steps to overcome barriers			**CO1**						
UNIT-II	**VERBAL COMMUNICATION**		**Periods: 09**						
Definition of Oral Communication - Principles of effective Oral Communication - Effective Techniques in Oral Communication - Scope of Oral Communication – Do's and Don'ts in Oral Communication			**CO2**						
UNIT-III	**NON-VERBAL COMMUNICATION**		**Periods: 09**						
Definition of Non-verbal Communication – Difference between Verbal and Non-Verbal Communication - Types of Body Language - Effective Techniques in Body Language - Colour and its meaning			**CO3**						
UNIT-IV	**BUSINESS LETTER AND EMAIL**		**Periods: 09**						
Layout of Business Letter - Types of Business Letter - Drafting a Business Letter - Layout and procedures of email - Drafting an Email			**CO4**						
UNIT-V	**BUSINESS WRITING**		**Periods: 09**						
Report Writing – Structure of Report Writing - Article Writing – Structure of Article Writing - Agenda & Minutes of Meeting - SWOT Analysis - Advertisement – Creating			**CO5**						
Lecture Periods: 45	**Tutorial Periods: 0**		**Practical Periods: -**			**Total Periods: 45**			

Text Books

1. C.S.Rayudu, *Media and Communication Management*, Himalaya Publishing House, 1st Ed, 2013.
2. Hory Sankar Mukerjee, *Business Communication: Connecting at Work*, Oxford University Press, 1st Edition, 2016.
3. K. K. Sinha, *Business Communication*, Galgotia Publishing, 4th Edition, 2011.

Reference Books

1. Krishna Mohan, R.C. Mohan & Virendra Singh Nirban, *Business Correspondence and Report Writing*, Tata McGraw-Hill Publishing, 6th Edition, 2020.
2. Nirmal Singh, *Business Communication: Principles, Methods and Techniques*, Deep & Deep Publications Pvt. Ltd, 1st Edition, 2008.
3. Rajendra Pal & J. S. Korlahalli, *Essentials of Business Communication*, Sultan Chand & Sons, 3rd Edition, 2011.
4. S.C.Gupta. *A Handbook for Letter Writing*. Arihant Publication. 2016.
5. R.S.Aggarwal. *A Modern Approach to Non-Verbal*. S Chand Publication. 2017.

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3. https://www.thebalancecareers.com/communication-skills-list-2063779
4. https://dictionary.cambridge.org/dictionary/english/non-verbal
5. https://www.investopedia.com/terms/s/swot.asp

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3
1	3	3	3	3	3	1	3	3
2	3	3	3	3	3	1	3	3
3	3	3	3	3	3	1	3	2
4	3	3	3	3	3	1	3	2
5	3	3	3	2	3	1	3	2

Correlation Level

High	Moderate	Low
3	2	1

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	10		5	5	5	75	100

***** Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

Department	**Business Studies**	Programme: B.Com CA						
Semester	**First**	Course Category Code: **DSC**			*End Semester Exam Type: **TE**			
Course Code	**A23CST101C**	Periods / Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**FINANCIAL ACCOUNTING FOR BUSINESS**	3	1	0	4	25	75	100
Common to B.Com (CA) and B.Com. (CS)								

Pedagogy:	Classrooms lecture, tutorials, Group discussion, Seminar, Role play & field work etc
Course Objective	To learn the computation of final accounts
	To gain knowledge about the accounting for non-profit entities
	To develop the knowledge of accounting from incomplete records
	To help students to acquaint with application of branch and departmental accounting.
	To make the hire purchase and installment payment accounting

Course Outcome	On completion of the course, the students will be able to	BT Mapping (Highest Level)
	CO1 Computation of final accounts	**K3**
	CO2 Prepare financial statements of Non-Profit Organizations.	**K3**
	CO3 Prepare Accounting from Incomplete Records	**K3**
	CO4 Comprehend the preparation of branch and departmental accounting.	**K3**
	CO5 Make necessary books of record under hire purchase and instalment methods.	**K3**

UNIT-I	**FINAL ACCOUNTS**	**Periods: 12**	
Introduction to Final Accounts- Final accounts of sole trading concern- Trading and Profit and loss account- Balance sheet- Adjustment entries- Practical problems.			**CO1**
UNIT-II	**ACCOUNTING FOR NON-PROFIT ENTITIES**	**Periods: 12**	
Introduction – Features of not–for–profit organisations – Receipts and Payments Account -Items peculiar (Capital expenditure, Revenue expenditure, Deferred revenue expenditure, Capital receipt, Revenue receipt) to not–for–profit organisations - Income and Expenditure Account - Balance Sheet			**CO2**
UNIT-III	**ACCOUNTING FROM INCOMPLETE RECORDS**	**Periods: 12**	
Introduction – Meaning of incomplete records – Features of incomplete records - Limitations of incomplete records - Differences between double entry - system and incomplete records - Accounts from incomplete records - Ascertaining profit or loss from incomplete records through statement of affairs - Preparation of final accounts from incomplete records.			**CO3**
UNIT-IV	**BRANCH AND DEPARTMENTAL ACCOUNTING**	**Periods: 12**	
Branch Accounts-Dependent Branches (Debtors system, Stock & Debtors system) and Independent Branches (Foreign Branches excluded) – Departmental Accounts: Departmental Trading Account; Profit & Loss Account – Calculation of net profit of various departments and allocation of expenses – Preparation of General Profit & Loss Account and Balance Sheet.			**CO4**
UNIT-V	**HIRE PURCHASE AND INSTALMENTS SYSTEMS**	**Periods: 12**	
Introduction - Nature of Hire Purchase Agreement, Special Features, Terms Used and Ascertainment of Total Cash Price, Ascertainment of Interest, Accounting Arrangements of Hire Purchase Transaction, Repossession, Instalment payment system, Differences between Hire Purchase Agreement and Instalment Payment Agreement.			**CO5**

Lecture Periods: 45	**Tutorial Periods: 15**	**Practical Periods: -**	**Total Periods: 60**

Skill Developments Activities

1. Visit any sole proprietor firm and identify the steps involved in the conversion of single entry into double entry system.
2. Visit any hospital or Lawyers office and list out the transactions of the same.
3. Collect and analyse the financial statements of Dairy and poultry farming.
4. Collect Hire purchase Agreements and draft dummy Hire purchase agreements with imaginary figures.
5. Visit the nearby general insurance company and prepare a report on claim settlement procedure.

Text Books

1. Hanif & Mukherjee, "Financial Accounting", Tata McGraw Hill, 2nd Edition, 2019.
2. S.P. Jain & K.L. Narang, "Financial Accounting", Kalyani Publishers, 12th Edition, 2014.
3. P.C. Tulsian & Bharat Tulsian, "Financial Accounting", S.Chand, 2nd Edition, 2016.

Reference Books

1. M.C. Shukla, T.S. Grewal & S.C. Gupta, "Advanced Accounts – Vol.1", S.Chand & Sons, 19th Edition, 2017.
2. R.L. Gupta & Radhaswamy, "Advanced Accountancy – Vol.1", Sultan Chand & Sons, 1st Edition, 2013.
3. Arulanandam & Raman, "Advanced Accountancy Vol.1", Himalaya Publishing House, 7th Edition, 2018.
4. Maheswari & Maheswari, "Financial Accounting", Vikas Publishing House, 6th Edition, 2018

Web References

1. https://www.geektonight.com/financial-accounting-notes/
2. https://icmai.in/upload/Students/Syllabus2016/Inter/Paper-5-January-2021.pdf
3. https://lecturenotes.in/download/material/18026-financial-accounting
4. https://ocw.mit.edu/courses/sloan-school-of-management/15-515-financial-accounting-fall-2003/
5. https://www.icai.org/post.html?post_id=12430

* TE – Theory Exam, LE – Lab Exam

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	3	3	2	2	1	2	3	3
2	2	1	2	3	3	3	2	2
3	3	3	3	2	2	2	2	2
4	2	-	3	2	2	3	2	2
5	3	3	2	1	-	3	2	1

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	10		5	5	5	75	100

***** Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

Department	**BUSINESS STUDIES**			Programme: **B.Com CA**				
Semester	**FIRST**			Course Category Code: **IDC**		End Semester Exam Type: **TE**		
CourseCode	**A23BAD101C**	Periods/Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**MANAGERIAL ECONOMICS**	**3**	**0**	**0**	**3**	**25**	**75**	**100**
(Common to B.Com(CS), B.Com CA and All Programmes in BBA)								

Prerequisite	Basic Knowledge on Managerial Economics	
Course Objectives	To understand the concept of basic principles in managerial economics	
	To understand the demand and supply analysis.	
	To create knowledge on production analysis.	
	To understand the different the competitive market situation.	
	To create knowledge about National Income	
Course Outcomes	***On completion of the course, the students will be able to***	BT Mapping (Highest Level)
	CO1 Enhance the knowledge on managerial economics	**K2**
	CO2 Know the demand and supply of goods for the individual and market..	**K3**
	CO3 Familiarize with the production and cost of the business firms.	**K3**
	CO4 Analyze the different market forms.	**K3**
	CO5 Understand the concepts and measurement of National Income.	**K4**

UNIT-I	**INTRODUCTION TO MANAGERIAL ECONOMICS**	**Periods:09**	
Introduction - Definition – Nature and scope of Managerial Economics – Uses of Managerial economics in Business – Importance –Objectives of Business firm - Role of Managerial economists in Business.- Social Responsibility of Business firms.			**CO1**
UNIT-II	**DEMAND AND SUPPLY ANALYSIS**	**Periods:09**	
Demand – Demand function – Factors determining demand – Law of Demand – Exceptional Demand – Types of Demand – Demand Distinctions – Elasticity of Demand – Types – Measurement – Importance – Demand forecasting – Supply – Law of Supply – Elasticity of Supply.			**CO2**
UNIT-III	**PRODUCTION ANALYSIS**	**Periods:09**	
Production – Production function – Factors of Production – Types of Production function –Laws of Production – Laws of Variable Proportions – Isoquants – Producer Equilibrium- Law of Returns to Scale.			**CO3**
UNIT-IV	**FORMS OF MARKET**	**Periods:09**	
Meaning of Market – Classification of Market – Perfect Competition – Features of Perfect competition – Imperfect Competition – Monopoly – Monopolistic – Duopoly – Oligopoly – Features of Imperfect competitive markets – Price Discrimination – Price and Output determination in different competitive market..			**CO4**
UNIT-V	**NATIONAL INCOME**	**Periods:09**	
National Income – Meaning – Definition – Approaches to compute National Income – Factors determining National Income - Concepts of National Income – Methods of measuring National Income – Uses of calculating National Income – How far National Income calculation is reliable for economic development.			**CO5**

Lecture Periods: 45	**Tutorial Periods:0**	**Practical Periods:-**	**Total Periods: 45**

Text Books

1. R.L. Varshney&K.L. Maheswari, "Managerial Economics", Sultan Chand & Sons, 19th Edition, 2018.
2. G.S. Gupta, "Managerial Economics", McGraw Hill Education, 2nd Edition, 2017.
3. A. Koutsoyiannis, "Modern Microeconomics", Palgrave Macmillan, 2nd Edition, 2008.

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1. Pradeep Kumar, "Managerial Economics", KedarNath Ram Nath& Co Publishers, 2nd Edition, 2016.
2. Luke M. Froe & Brian T. McCann, "Managerial Economics – A Problem Solving Approach", Thomson South Western, 4th Edition, 2015.
3. Yogesh Maheshwari, "Managerial Economics", PHI Learning, 1st Edition, 2012.
4. Joel Dean, "Managerial Economics", Prentice Hall of India Private Limited, 7th Edition, 2010.
   D.N. Dwivedi, "Managerial Economics", Vikas Publishing House, 8th Edition, 2015.

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1. https://businessjargons.com/determinants-of-elasticity-of-demand.html
2. http://www.economicsdiscussion.net/laws-of-production/laws-of-production-laws-ofreturns-to-scale-and-variable-proportions/5134
3. https://www.intelligenteconomist.com/profit-maximization-rule/
4. ps://scholar.cu.edu.eg/?q=mahmoudarafa/files/l.3_market_structures_and_price.pdf
5. https://icmai.in/upload/Students/Syllabus2016/Foundation/Paper-1New-29012021.pdf

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3
1	2	2	3	2	3	3	3	3
2	3	3	3	3	3	3	3	3
3	3	2	3	3	2	3	3	3
4	2	3	2	2	2	2	3	2
5	3	3	3	3	3	3	3	3

Correlation Level:

High	Moderate	Low
3	2	1

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	10		5	5	5	75	100

***** Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

Department	**Business Studies**	Programme: **B.B.A.**						
Semester	**FIRST**	Course Category Code: **DSC**			End Semester Exam Type: **TE**			
Course Code	A23BAT102C	Periods / Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**Business Management and Practices**	**3**	**0**	**0**	**3**	**25**	**75**	**100**
Common to B.Com. (General), B.Com (CA), B.Com. (CS), B.B.A. (General), B.Com (A&F), B.B.A. (FDB) and B.B.A. (HA)								
Prerequisite	-							
Course Objective	To provide an in-depth understanding of Management Concepts.							
	To explain purpose and types of planning as well as significance of Decision-Making.							
	To be familiar with Nature and Functions of Organisation, Departmentation, Delegation and Staffing.							
	To understand the concepts of Directing, Coordinating and Controlling.							
	To explore various trends in Management.							

Course Outcome	**On completion of the course, the students will be able to**	BT Mapping (Highest Level)
	CO1 Demonstrates conceptual understanding and application of principles and functions of management.	**K1**
	CO2 Appreciate the purpose and types of planning and principles of decision making.	**K2**
	CO3 Develop conceptual understanding on Organising and understand the concepts of Staffing.	**K2**
	CO4 Understands the Nature, Importance and Principles of Directing and Controlling.	**K3**
	CO5 Gains knowledge on Contemporary topics in Management.	**K3**

UNIT-I	**NATURE OF AND APPROACHES TO MANAGEMENT**	**Periods: 9**
Definition, Nature, Process and Significance of Management – Role and Functions of Managers – Managerial Skills - Management as a Science or Art - Management as a Profession - Administration and Management - Levels of Management - Functions of Management – Principles of Management - Functional Areas of Management - Classical Management Approaches - Behavioural Management Approaches - Modern Management Approaches.		**CO1**
UNIT-II	**PLANNING AND DECISION-MAKING**	**Periods: 9**
Planning - Nature and Importance of Planning - Types of Plans - Levels of Planning - Steps in Planning - Management By Objective (MBO) - Management By Exception (MBE) - Policy and Strategy - Forecasting and Decision Making - Characteristics of Decision Making - Types of Decisions – Decision Making Process - Rational Perspectives and Behavioural Aspects of decision making.		**CO2**
UNIT-III	**ORGANISING AND STAFFING**	**Periods: 9**
Organizing - Nature and Purpose - Principles of Organization - Types of Organization - Organisational Structure and Design - Line, Staff and Functional Authority - Departmentation - Span of Control - Authority, Responsibility and Accountability - Principles of Delegation - Steps - Centralization Vs Decentralization - Factors determining the degree of Decentralization of Authority. Staffing - Nature and Purpose of Staffing - Importance of Staffing - Components of Staffing - Steps in Manpower planning - Meaning of Recruitment and Selection, Training and Development , Performance Appraisal and Potential Appraisal.		**CO3**
UNIT-IV	**DIRECTING, COORDINATING AND CONTROLLING**	**Periods: 9**
Directing - Nature of Directing Function - Principles - Importance of Effective Direction - Morale Building - Job Satisfaction - Effective Communication skills for Directing - Barriers of communication. Coordination - Meaning, Nature and Characteristics - Controlling: Meaning, Objectives of Controlling - Principles of Controlling - Importance of Controlling.		**CO4**
UNIT-V	**TRENDS IN MANAGEMENT**	**Periods: 9**
Outsourcing - Knowledge Management - Learning Organization - Business Process Reengineering (BPR) - Conflict Management - Stress Management - Participative Management - Green Management - Change Management - Total Quality Management (TQM) - Flexible Work Environment - Work Force Diversity.		**CO5**

Lecture Periods: 45	**Tutorial Periods:**	**Practical Periods: -**	**Total Periods: 45**

Text Books

1. Stoner, Freeman, Gilbert Jr. (2014). Management (6th edition), New Delhi: Prentice Hall India.
2. Gupta, R.S., Sharma, B.D., & Bhalla. N.S. (2011). Principles & Practices of Management (11th edition). New Delhi: Kalyani Publishers.
3. L.M. Prasad, "Principles and Practice of Management", Sultan Chand & Sons, 9th Edition, 2015.

Reference Books

1. Koontz O'Donnell, "Essentials of Management", Tata McGraw Hill, 7th Edition, 2007.
2. J.A.F. Stoner, R.E. Freeman & Daniel R. Gilbert, "Management", Pearson Education, 6th Edition, 2004.
3. Y.K. Bhushan, "Business Organisation and Management", Sultan Chand & Sons, 11th Edition, 2013.
4. P.C. Tripathi & P.N. Reddy, "Principles of Management", Tata McGraw Hill, 5th Edition, 2012.
5. Stephen P. Robbins & Mary Coulter, "Management", Prentice Hall of India, 10th Edition, 2009.

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1. https://tyonote.com/trends_in_management/
2. https://onlinecourses.swayam2.ac.in/nou21_mg06/preview
3. https://nptel.ac.in/courses/110102016
4. https://onlinecourses.nptel.ac.in/noc22_mg42/preview
5. https://archive.nptel.ac.in/courses/110/105/110105083/

* TE – Theory Exam

COs/POs/PSOs Mapping

Cos	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	2	1	2	3	1	2	3	2
2	3	3	2	3	2	1	2	2
3	2	3	3	2	1	3	1	3
4	3	2	2	2	2	2	2	3
5	3	3	3	2	2	3	2	3

Correlation Level: 1 - Low, 2 - Medium, 3 - High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment	Attendance		
Marks	10		5	5	5	75	100

Department	**Computational Studies**	Programme: B.Com CA						
Semester	**FIRST**	Course Category Code: **DSC**			*End Semester Exam Type: **TE**			
Course Code	**A23CPT101C**	Periods / Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**PROBLEM SOLVING USING C**	4	0	0	4	25	75	100
Common to B.Sc (Computer Science) and B.Com (CA)								

Prerequisite	Basic Programming Skills
Pedagogy:	Classrooms lecture, tutorials, Group discussion, Seminar, Role play & field work etc.
Course Objective	To understand the Fundamentals of Computers and introduction to C language..
	To study the basic terminologies of C language and arrays
	To understand the Functions, Structures and Unions.
	To understand the concepts of Pointers.
	To study about File Management Operations in C.

Course Outcome	On completion of the course, the students will be able to	BT Mapping (Highest Level)
	CO1 Describing the basic introduction about C programming.	**K2**
	CO2 Incorporating the use of sequential, selection and repetition control structures into a program.	**K2**
	CO3 Develop the concepts of looping and arrays.	**K3**
	CO4 Design and develop programs using Functions and Pointers.	**K3**
	CO5 Understand the File management Operations and Pre-processor Directives.	**K2**

UNIT-I	**INTRODUCTION TO C**	**Periods: 12**
Fundamentals of Computer: Computer Definition – Block Diagram of Computer – Types of Computer – Characteristics of Computer – Applications of Computer. C programming: Overview of C – Constants – Compiling a C Program - Variables and Data Types - Technical Difference between Keywords and Identifiers -Types of C Qualifiers and format specifies - Operators and Expressions - Operators Precedence -Type conversion - Input-Output Statements.		**CO1**
UNIT-II	**DECISION MAKING**	**Periods: 12**
Decision making and branching - Relational operators – Logical operators - if – if else - if else if – nested if, Switch-case.		**CO2**
UNIT-III	**LOOPING AND ARRAYS**	**Periods: 12**
Looping: while - do while – for – break – continue - nested loop. Arrays: One Dimensional Arrays-Two-Dimensional Arrays-Multi-Dimensional Array-Dynamic arrays-Character Arrays and String-Sorting - Searching.		**CO3**
UNIT-IV	**FUNCTIONS, POINTERS**	**Periods: 12**
Functions: Introduction - Definition – Declaration – Categories of Functions - Nesting of Functions, Recursive functions - Passing Arrays to Functions - Strings – String library function. Pointers: Introduction - Declaring Pointer Variables - Initialization of Pointer Variables - Accessing the address of a variable - Accessing a variable thorough Pointer - Chain of Pointers - Pointer Expressions - Pointers and arrays – Pointers and functions – Call by Reference - Pointers and character strings - Array of Pointers - Pointers and Structures.		**CO4**
UNIT-V	**STRUCTURES AND UNIONS, FILE MANAGEMENT**	**Periods: 12**
User defined data types: Introduction – Structure: definition - declaration - Arrays of Structures – Nested structures – Passing structures to functions – Union - Enumeration and Typedef. Introduction to File Handling in C, Input and Output operations on a file – Error Handling - Random access to files – Command Line Arguments. Introduction to Pre-Processor – Macro substitution directives – File inclusion directives – Conditional Compilation Directives – Miscellaneous directives.		**CO5**

Lecture Periods: 60	**Tutorial Periods: -**	**Practical Periods: -**	**Total Periods: 60**

* TE – Theory Exam, LE – Lab Exam

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	-	2	1	2	1	2	2	2
2	1	2	1	-	-	2	1	1
3	1	3	-	1	1	3	2	3
4	2	1	-	-	1	2	1	2
5	1	1	2	-	1	2	2	1

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	10		5	5	5	75	100

***** Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

Department	**COMPUTATIONAL STUDIES**	Programme: B.Com CA						
Semester	**FIRST**	Course Category Code: **DSC**			*End Semester Exam Type: **LE**			
Course Code	**A23CPL101C**	Periods / Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	**PROGRAMMING IN C LAB**	0	0	4	2	50	50	100
Common to B.Sc (Computer Science) and B.Com (CA)								
Prerequisite								
Pedagogy:	Classrooms lecture, tutorials, Group discussion, Seminar, Role play & field work etc							

Course Objective	To practice the fundamental programming methodologies in the C programming language.
	To apply logical skills for problem solving using control structures and arrays.
	To design, implement, test and debug programs that use different data types, variables, strings, arrays,pointers and structures.
	To design modular programming and provide recursive solution to problems.
	To understand the miscellaneous aspects of C and comprehension of file operations.

Course Outcome	On completion of the course, the students will be able to	BT Mapping (Highest Level)
	CO1 Apply and practice logical formulations to solve simple problems leading to specific applications.	**K2**
	CO2 Develop C programs for simple applications making use of basic constructs, arrays and strings.	**K2**
	CO3 Develop C programs involving functions, recursion, pointers, and structures.	**K3**
	CO4 Design applications using sequential and random access file processing.	**K3**
	CO5 Build solutions for online coding challenges.	**K2**

List of Exercises

1. Simple programming exercises to familiarize the basic C language constructs.
2. Develop programs using identifiers and operators.
3. Develop programs using decision-making and looping constructs.
4. Develop programs using functions as mathematical functions.
5. Develop programs with user defined functions – includes parameter passing.
6. Develop program for one dimensional and two dimensional arrays.
7. Develop program to illustrate pointers.
8. Develop program with arrays and pointers.
9. Develop program for dynamic memory allocation.
10. Develop programs for file operations.

Lecture Periods: -	**Tutorial Periods: -**	**Practical Periods: 60**	**Total Periods: 60**

* TE – Theory Exam, LE – Lab Exam

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**
1	1	1	-	-	1	2	1	2
2	1	2	1	-	-	2	1	1
3	-	1	1	2	1	2	2	2
4	1	1	-	1	1	3	1	1
5	1	1	1	-	1	2	2	1

Correlation Level: 1 - Low, 2 - Medium, 3 – High

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)			End Semester Examination (ESE) Marks	Total Marks
	Model Exam	**Record**	**Attendance**		
Marks	30	10	10	50	100

***** Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

Department	**ENGLISH**			Programme: **B.Com CA**				
Semester	**FIRST**			Course Category Code: **SEC**		End Semester Exam Type:-		
Course Code	**A23ENSA01C**			Periods / Week			Credit	Maximum Marks
				L	T	P	C	CAM	ESE	TM
Course Name	**COMMUNICATION SKILLS**			**2**	**0**	**0**	**2**	**100**	**0**	**100**

Prerequisite	Knowledge gained from Communication and New paper reading	
Course Objectives	To improve the skill of rapid reading and communicate efficiently	
	To decode and impart speaking skills with confidence	
	To train students in analyzing articles and Newspaper	
	To enhance the sense of social responsibility and accountability of the students	
	To expound the significance in Managerial skills	
Course Outcomes	***On completion of the course, the students will be able to***	BT Mapping (Highest Level)
	CO1 Understand the pattern to communicate effectively	**K3**
	CO2 Impart Speaking skills with self-confidence	**K3**
	CO3 Enhance their strategies in analyzing articles and Newspaper	**K3**
	CO4 The sense of social responsibility and accountability of the students	**K3**
	CO5 Expertise in Managerial skills	**K3**

UNIT-I	**COMMUNICATION SKILLS - SPEAKING**	**Periods: 06**	
1. Aspects of speaking 2. Process of effective Speech 3. Techniques for effectual Presentation			**CO1**
UNIT-II	**SELF-MANAGEMENT SKILLS**	**Periods: 06**	
1. Time Management 2. Stress Management 3. Emotional Management			**CO2**
UNIT-III	**COMMUNICATION SKILLS - READING**	**Periods: 06**	
1. Article analysis 2. Comprehension 3. Skimming and Scanning			**CO3**
UNIT-IV	**SOCIAL SKILLS**	**Periods: 06**	
1. Leadership 2. Teamwork 3. Decision making			**CO4**
UNIT-V	**PUBLIC SPEAKING AND PRESENTATION**	**Periods: 06**	
1. Rules and Techniques for Public Speaking 2. Practice session (both, Public Speaking and Presentation)			**CO5**

Lecture Periods: -	**Tutorial Periods: -**	**Practical Periods: 30**	**Total Periods: 30**

Text Books

1. Barun K. Mitra, *Personality Development and Soft skills*, Oxford University Press, 2nd Edition, 2016.
2. Syamala, V, *Effective English Communication for you*, Chennai: Emerald Publisher, 1st Edition, 2002.
3. Sanjay Kumar &PusphLata. *Communication Skills*, Oxford University Press, 2nd Edition, 2015.

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1. Murphy, John J, *Pulling Together: 10 Rules for High-Performance Teamwork*, Simple Truth Publication, 1st Edition, 2010.
2. Balasubramanian, T, *A Textbook of English Phonetics for Indian Students*, Trinity Press, 1st Ed, 1981.
3. Sardana,C.K, *The Challenge of Public Relations*, New Delhi: Harnand Publication,1st Edition, 1995.
4. Sabina Pillai, Agna Fernandez, *Soft Skills and Employability Skills*, Cambridge University Press, 2017.
5. Jeff Butterfield, *Soft Skills for Everyone*, Cengage India Private Limited, 2nd Edition, 2020.

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1. https://blog.dce.harvard.edu/professional-development/10-tips-improving-your-public-speaking-skills
2. https://corporatefinanceinstitute.com/resources/careers/soft-skills/management-skills/
3. https://zety.com/blog/how-to-introduce-yourself
4. https://www.butte.edu/departments/cas/tipsheets/readingstrategies/skimming_scanning.html
5. https://www.mayoclinic.org/tests-procedures/stress-management/about/pac-20384898

COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3
1	3	3	3	2	3	1	3	3
2	3	3	3	2	3	1	3	2
3	3	3	3	2	2	1	3	2
4	3	3	3	3	3	1	3	2
5	3	3	2	2	2	1	2	2

Correlation Level

High	Moderate	Low
3	2	1

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	80		-	10	10	-	100

***** Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

Department	**BUSINESS STUDIES**		Programme:**B.Com CA**					
Semester	**FIRST**		Course Category Code: **AEC**			End Semester Exam Type:**TE**		
CourseCode	**A23AETA02C**		Periods/Week			Credit	Maximum Marks	
			L	T	P	C	CAM	ESE	TM
Course Name	**ENVIRONMENTAL STUDIES**		**1**	**0**	**0**	**1**	**100**	**0**	**100**
(Common to All Programmes in B.Com &B.B.A.									
Prerequisite	Basic Knowledge and awareness on Environmental Studies								
Course Objectives	To gain knowledge on the importance of natural resources and energy.								
	To know the structure and function of an ecosystem.								
	To imbibe an aesthetic value with respect to biodiversity, understand the threats and its conservation and appreciate the concept of interdependence.								
	To know the causes of types of pollution and disaster management.								
	To observe and discover the surrounding environment through field work.								
Course Outcomes	***On completion of the course, the students will be able to***		BT Mapping (Highest Level)						
	CO1	Understand about the various resources	**K1**						
	CO2	Learn about the biodiversity	**K1**						
	CO3	Learn the different types of pollution and to prevent the pollution	**K2**						
	CO4	Know about the pollution Act	**K2**						
	CO5	Observe various environmental issues in surroundings	**K3**						
UNIT-I	**ENVIRONMENTAL SCIENCES: NATURAL RESOURCES**		**Periods:06**						
Environmental Sciences - Relevance - Significance - Public awareness - Forest resources - Water resources - Mineral resources - Food resources - conflicts over resource sharing - Exploitation - Land use pattern - Environmental impact - fertilizer - Pesticide Problems - case studies			**CO1**						
UNIT-II	**ECOSYSTEM, BIODIVERSITY AND ITS CONSERVATION**		**Periods:06**						
Ecosystem - concept - structure and function - producers, consumers and decomposers - Food chain - Food web - Ecological pyramids - Energy flow - Forest, Grassland, desert and aquatic ecosystem. Biodiversity - Definition - genetic, species and ecosystem diversity - Values and uses of biodiversity - biodiversity at global, national (India) and local levels - Hotspots, threats to biodiversity - conservation of biodiversity –Insitu&Exsitu.			**CO2**						
UNIT-III	**ENVIRONMENTAL POLLUTION AND MANAGEMENT**		**Periods:06**						
Environmental Pollution - Causes - Effects and control measures of Air, Water, Marine, soil, solid waste, Thermal, Nuclear pollution and Disaster Management - Floods, Earth quake, Cyclone and Landslides. Role of individuals in prevention of pollution - pollution case studies.			**CO3**						
UNIT-IV	**SOCIAL ISSUES - HUMAN POPULATION**		**Periods:06**						
Urban issues - Energy - water conservation - Environmental Ethics - Global warming - Resettlement and Rehabilitation issues - Environmental legislations - Environmental production Act. 1986 - Air, Water, Wildlife and forest conservation Act - Population growth and Explosion - Human rights and Value Education - Environmental Health - HIV/AIDS - Role of IT in Environment and Human Health - Women and child welfare - Public awareness - Case studies.			**CO4**						
UNIT-V	**FIELD WORK**		**Periods:06**						
Visit to a local area / local polluted site / local simple ecosystem - Report submission.			**CO5**						
Lecture Periods:30	**Tutorial Periods:0**	**Practical Periods:-**	**Total Periods:30**						

Text Books

1. BharuchaErach, "Textbook of Environmental Studies for Undergraduate Courses", Orient Black Swan, 2nd Edition, 2013.
2. BasuMahua, Savarimuthu Xavier, "Fundamentals of Environmental Studies", Cambridge, 2nd Edition, 2017.
3. Agarwal, K.C. "Environmental Biology", Nidi Publications, 1st Edition, 2004.

Reference Books

1. Kumarasam, Alagappa Moses &Vasanthy, "Environmental Studies", Bharathidasan University Publications, 1st Edition, 2004.
2. Rajamannar, "Environmental Studies", EVR College Publications, 1st Edition, 2004.
3. Kalavathy, S, "Environmental Studies", Bishop Heber College Publications, 1st Edition, 2004.

Web References

1. https://aits-tpt.edu.in/wp-content/uploads/2018/08/Environmental-Studies-Lecture-notes.doc-I_Betech_-ECE-CSE-EEE-CEME_III-Sem_BR.pdf
2. http://eagri.org/eagri50/ENVS302/pdf/lec05.pdf
3. https://www.youtube.com/watch?v=78prsPYm98g
4. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2792934/
5. https://www.frontiersin.org/articles/505570

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3
1	1	2	2	1	2	3	3	3
2	3	2	3	3	3	3	3	3
3	3	2	2	3	2	3	3	3
4	2	3	2	2	2	2	3	2
5	3	3	3	3	3	3	3	3

Correlation Level:

High	Moderate	Low
3	2	1

Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Report*	Attendance		
Marks	70		-	20	10		100

***** Application oriented / Problem solving / Design / Analytical in content beyond the syllabus