சென்னைப் பல்கலைக்கழகம்
University of Madras

Part-I

பொதுத் தமிழ் - பாடத்திட்டம்

General Tamil - Syllabus

4 பருவங்கள் (நான்காம் பருவம்)

(B.A., B.Sc., B.Com., BCA., BBA)

2023-24

பொதுத்தமிழ் -4

தமிழும் அறிவியலும்

இரண்டாம் ஆண்டு – நான்காம் பருவம்

Course Code	Course Name	category	L	T	P	S	Credits	Ins.Hrs	CIA	External	Total
200L4AU	பொதுத்தமிழ் -4 தமிழும் அறிவியலும்	Supportive	Y	-	-	-	3	6	25	75	100

Learning Objectives

- தாய்மொழி வழியாக அறிவியல் பற்றிய சிந்தனைகளை வளர்த்தல்.
- அறிவியல் கலைச் சொல்லாக்கம் பற்றிப் பயிற்றுவித்தல்.
- மாணவர்களுக்கு அறிவியல் பார்வையை ஏற்படுத்துதல்.
- தமிழில் அறிவியல் படைப்பிலக்கியங்களை உருவாக்கத் தூண்டுதல்
- தமிழ் இலக்கியம் சார்ந்த போட்டித் தேர்வுகளுக்கு ஏற்ப கற்பித்தல் நடைமுறைகளை மேற்கொள்ளுதல்

Expected Course Outcomes

On the Sucessful completion of the Course, Students will be able to

இப்பாடத்தைக் கற்பதால் பின்வரும் பயன்களை மாணவர் அடைவர்

CO 1	தாய்மொழி வழியாக அறிவியல் பற்றிச் சிந்திக்கும் திறன் பெற்றிருப்பர்.	K4
CO 2	அறிவியல் கலைச் சொல்லாக்கம் பற்றிய விதிகள், நுணுக்கங்களைத் தெரிந்திருப்பர்.	K5, K6
CO 3	அறிவியல் தமிழ் வளர்ச்சியில் மொழிபெயர்ப்பின் பங்கு குறித்து அறிந்திருப்பர்.	K3
CO 4	மொழியறிவோடு சிந்தனைத்திறனைப் பெறுவர்	K3
CO 5	மொழிப்பயிற்சிக்குத் தேவையான இலக்கணங்களைக் கற்பர்.	K2

K1 - Remember; K2 - Undestand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create

அலகு-1 தமிழரின் அறிவியல் சிந்தனைகள்

- அறிவியலும் மனித வாழ்வும்
- ஐந்திணைப் பகுப்பும் சூழலியலும்
- தொழில்நுட்ப மேலாண்மை
- நீர் நில மேலாண்மை

அலகு-2 பழந்தமிழ் இலக்கியங்களில் அறிவியல் சிந்தனைகள்

1. நிலவியல்
2. உலோகவியல்
3. வானவியல்
4. உயிரியல்
5. உளவியல்

அலகு-3	இடைக்கால இலக்கியங்களில் அறிவியல் சிந்தனைகள்

1. காப்பியங்களில் அறிவியல்
2. சிற்றிலக்கியங்களில் அறிவியல்
3. உரைநூல்களில் அறிவியல்

அலகு-4	இணையத் தமிழ்

1. இணையத் தமிழ் பயன்பாடு - அறிமுகம்
2. இணையத்தமிழ்க் கல்விக்கழகம்
3. இணைய நூலகம்
4. செயற்கை நுண்ணறிவியல்
5. தமிழ்நாட்டு அறிவியல் ஆளுமைகள்

அலகு-5	கடிதம் எழுதுதலும் கட்டுரை எழுதுதலும்

- உறவு முறைக் கடிதப் பயிற்சி
- அலுவலகக் கடிதப் பயிற்சி
- விண்ணப்பப் படிவம் எழுதும் பயிற்சி
- தன் விவரப் படிவம் எழுதும் பயிற்சி
- கருத்து விளக்கக் கட்டுரைகள் எழுதும் பயிற்சி
- பத்திரிகைகளுக்குக் கட்டுரை எழுதும் பயிற்சி

Text books

- அறிவியல் தமிழ் இன்றைய நிலை - இராதா செல்லப்பன், உலகத் தமிழாராய்ச்சி நிறுவனம், சென்னை.
- மணவை முஸ்தபா, தமிழில் அறிவியல் படைப்பிலக்கியம், மணவை பப்ளிகேஷன், சென்னை.
- கலைச்சொல்லாக்கம் - மங்கை, ரங்கராசபுரம், சென்னை .

Reference Books

1.தமிழர் வேளாண்மை மரபுகள் - இல).செ.கந்தசாமி

- 2. சங்க இலக்கியத்தில் வேளாண் சமுதாயம், பெ.மாதையன், நியூ செஞ்சுரி புக் ஹவுஸ்

3. தமிழில் அறிவியல் இதழ்கள்சாமுவேல்- ரா.பார்வேந்தன் ஃபிஷ்கிரீன் பதிப்பகம், கோவை

4. அறிவியல் தமிழ் - பதிப்பாசிரியர் இராதா செல்லப்பன்,பாரதிதாசன் பல்கலைக்கழகம், திருச்சிராப்பள்ளி.

5. இணையத் தமிழ் வரலாறு, மு.பொன்னவைக்கோ, பாரதிதாசன் பல்கலைக்கழகம்

6. இணையத் தமிழ், சந்திரிகா சுப்பிரமணியம் - சந்திரோதயம் பதிப்பகம்

7. இணையமும் இனிய தமிழும் - துரை. மணியரசன், இசை பதிப்பகம்

8. கணினித் தமிழ், இல. சுந்தரம் - விகடன் பிரசுரம்

9. மாண்புமிகு மண், பாமயன், வம்சி புக்ஸ்

10. தமிழ் இலக்கியத்தில் அறிவியல் சிந்தனைகள் வானதி பதிப்பகம், சென்னை

Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]

Web Sources

- https://www.chennailibrary.com/
- https://www.sirukathaigal.com
- https://www.tamilvirtualuniversity.org
- https://www.noolulagam.com
- https://www.katuraitamilblogspot.com

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PSO 1	PSO 2
CLO1	3	2	3	3	3	2	2	2	3	2	3	2
CLO2	3	3	2	2	2	3	2	3	3	2	2	2
CLO3	3	2	3	3	2	2	2	3	2	3	3	2
CLO4		3	3	2	2	2	3	2	3	2	3	3
CLO5	3	3	2	2	2	3	3	2	2	2	3	3

Strong -3,Medium-2,Low-

1.

UNIVERSITY OF MADRAS

FOUNDATION COURSE: ENGLISH

SYLLABUS WITH EFFECT FROM 2023-2024

SECOND YEAR - SEMESTER IV

PAPER II –GENERAL ENGLISH

Subject Code	Category	L	T	P	S	Credits	Inst. Hours	Marks		
								CIA	External	Total
200L4ZU	Part II	Y	Y	-	-	3	6	25	75	100

Learning Objectives	
LO1	To help learners imbibe goal-setting attitude.
LO2	To enable them to understand the value of integrity.
LO3	To help them deal with emotions.
LO4	To teach the learners to frame sentences using tenses.
LO5	To enhance reporting skills.

Unit No.	Unit Title & Text	No. of Periods for the Unit
I	**GOAL SETTING (UNICEF)** **Life Story** 1.1 From Chinese Cinderella – Adeline Yen Mah 1.2 Why I Write - George Orwell **Short Essay** 1.3 On Personal Mastery – Robin Sharma 1.4 On the Love of Life – William Hazlitt	20
II	**INTEGRITY** **Short Story** 2.1The Taxi Driver – K.S. Duggal 2.2 Kabuliwala - Rabindranath Tagore 2.3 A Retrieved Reformation – O Henry **Extract from a play** 2.4 The Quality of Mercy (Trial Scene from the Merchant of Venice - Shakespeare)	20
III	**COPING WITH EMOTIONS** **Poem** 3.1 Pride – Dahlia Ravikovitch 3.2 Phenomenal Woman – Maya Angelou **Reader's Theatre** 3.3 The Giant's Wife A Tall Tale of Ireland – William Carleton 3.4 The Princess and the God : A Tale of Ancient India	20

IV	**Language Competency Sentences** 4.1 Simple Sentences 4.2 Compound Sentences 4.3 Complex Sentences **Direct and Indirect Speech**	15
V	**Report Writing** 5.1 Narrative Report 5.2 Newspaper Report **Drafting Speeches** 5.3 Welcome Address 5.4 Vote of Thanks	15

Course Outcomes

Course Outcomes	On completion of this course, students will	
CO1	Determine their goals	PO1,PO7
CO2	Identify the value of integrity.	PO1,PO2,PO10
CO3	Deal with emotions.	PO4,PO6,PO9
CO4	Frame grammatically correct sentences	PO4,PO5,PO6
CO5	Write cohesive reports.	PO3,PO8

Text Books (Latest Editions)

1	Oxford Practice Grammar , John Eastwood, Oxford University Press
2	Cambridge Grammar of English , Ronald Carter and Michael McCarthy
3.	George Orwell Essays, Penguin Classics

Web Resources	
1	http:/www.gradesaver.com/George-orwell-essays/study/summary
2	O' Henry. A Retrieved Reformation. https://americanenglish.state.gov/files/ae/resource_files/a-retrieved-reformation.pdf
3	Maya Angelou. Phenomenal Woman. https://www.poetryfoundation.org/poems/48985/phenomenal-woman
4	The Quality of Mercy, https://poemana1ysis.com
5	https://www'.oxfordscho1ar1yeditions.coin/disp1ay/10.1093/actrade/9780199235742.book.1/actrade-9780199235742-div1-106- William Hazilitt

Mapping with Programme Outcomes:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	3	3	3	3	3	3	2	3	2
CO2	2	3	3	3	2	3	3	2	2	2
CO3	3	3	3	2	3	3	3	2	3	2
CO4	3	3	3	3	3	3	3	2	2	2
CO5	3	2	3	3	3	3	3	2	2	3

3 – Strong, 2 – Medium , 1 – Low

Mapping with Programme Specific Outcomes:

CO /PO	PSO1	PSO2	PSO3	PSO4
CO1	3	3	3	3
CO2	3	3	3	3
CO3	3	3	3	3
CO4	3	3	3	3
CO5	3	3	3	3
Weightage	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0

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SYLLABUS WITH EFFECT FROM 2023-2024

SECOND YEAR – SEMESTER – IV

CORE – VII: CORPORATE ACCOUNTING – II

(Common to B.Com- Gen., AF, BM, MM, ISM, Co-op. & CS)

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
247C4A	5				5	5	25	75	100

Learning Objectives	
LO1	To know the types of Amalgamation, Internal and external Reconstruction
LO2	To know Final statements of banking companies
LO3	To understand the accounting treatment of Insurance company accounts
LO4	To understand the procedure for preparation of consolidated Balance sheet
LO5	To have an insight on modes of winding up of a company

Prerequisite: Should have studied Financial Accounting in I Year

Unit	Contents	No. of Hours
I	**Amalgamation, Internal & External Reconstruction** Amalgamation – **Meaning** - Purchase Consideration - Lump sum Method, Net Assets Method, Net Payment Method, Intrinsic Value Method - Types of **Methods of Accounting for** Amalgamation -**The Pooling of Interest Method - The Purchase Method**(Excluding Inter-Company Holdings). **Internal & External Reconstruction** **Internal Reconstruction – Conversion of Stock – Increase and Decrease of Capital – Reserve Liability - Accounting Treatment of External Reconstruction**	**15**
II	**Accounting of Banking Companies** Final Statements of Banking Companies (As Per New Provisions) - Non-Performing Assets - Rebate on Bills Discounted- Profit and Loss a/c - Balance Sheet as Per Banking Regulation Act 1949.	**15**
III	**Insurance Company Accounts:** Meaning of Insurance – Principles – Types – Preparation of Final Accounts of Insurance Companies – Accounts of Life Insurance Business – Accounts of General Insurance Companies -New Format.	**15**
IV	**Consolidated Financial Statements** Introduction-Holding & Subsidiary Company-Legal Requirements Relating to Preparation of Accounts -Preparation of Consolidated Balance Sheet (Excluding Inter-Company Holdings).	**15**
V	**Liquidation of Companies** Meaning-Modes of Winding Up – Preparation of Statement of Affairs and Statement of Deficiency **or Surplus (List H)** Order of Payment – Liquidators Remuneration- Liquidator's Final Statement of Accounts.	**15**
	TOTAL	**75**

THEORY 20% & PROBLEMS 80%

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SYLLABUS WITH EFFECT FROM 2023-2024

Course Outcomes	
CO1	Understand the accounting treatment of amalgamation, Internal and external reconstruction
CO2	Construct Profit and Loss account and Balance Sheet of Banking Companies in accordance in the prescribed format.
CO3	Synthesize and prepare final accounts of Insurance companies in the prescribed format
CO4	Give the consolidated accounts of holding companies
CO5	Preparation of liquidator's final statement of account

Textbooks	
1	S.P. Jain and K.L Narang. Advanced Accountancy, Kalyani Publishers, New Delhi.
2	Dr.K.S .Raman and Dr. M.A. Arulanandam , Advanced Accountancy, Vol. II, Himalaya Publishing House, Mumbai.
3	R.L. Gupta and M. Radhaswamy, Advanced Accounts, Sultan Chand, New Delhi.
4	M.C. Shukla and T.S. Grewal, Advanced Accounts Vol.II, S Chand & Sons, New Delhi.
5	T.S. Reddy and A.Murthy, Corporate Accounting II, Margham Publishers, Chennai

Reference Books	
1	B.Raman, Corporate Accounting, Taxmann, New Delhi
2	M.C.Shukla, Advanced Accounting,S.Chand, New Delhi
3	Prof. MukeshBramhbutt, Devi Ahilya publication, Madhya Pradesh
4	Anil kumar, Rajesh kumar, Advanced Corporate Accounting, Himalaya Publishing house, Mumbai.
5	PrasanthAthma, Corporate Accounting, Himalaya Publishing house, Mumbai.

NOTE: Latest Edition of Textbooks May be Used

Web Resources	
1	https://www.accountingnotes.net/amalgamation/amalgamation-absorption-and-reconstruction-accounting/126
2	https://www.slideshare.net/debchat123/accounts-of-banking-companies
3	https://www.accountingnotes.net/liquidation/liquidation-of-companies-accounting/12862

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MAPPING WITH PROGRAMME OUTCOMES
AND PROGRAMME SPECIFIC OUTCOMES

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PSO1**	**PSO2**	**PSO3**
CO1	3	2	3	2	2	2	3	2	3	2	2
CO2	3	2	3	2	3	2	3	2	3	2	2
CO3	3	2	3	2	3	2	3	2	3	2	2
CO4	3	2	3	2	2	2	3	2	3	2	2
CO5	3	2	3	2	2	2	3	2	3	2	2
TOTAL	15	10	15	10	12	10	15	10	15	10	10
AVERAGE	3	2	3	2	2.4	2	3	2	3	2	2

3 – Strong, 2- Medium, 1- Low

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B.COM. DEGREE PROGRAMME IN COMPUTER APPLICATIONS

SYLLABUS WITH EFFECT FROM 2023-2024

SECOND YEAR– SEMESTER– IV

CORE PAPER VIII –PRINCIPLES OF MARKETING

(Common to B.Com- Gen., AF, BM, MM, ISM, Co-op. & CS as Elective)

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
247C4B	5				5	5	25	75	100

Learning Objectives	
LO1	To know the concept and functions of marketing
LO2	To understand the importance of market segmentation
LO3	To examine the stages of new product development
LO4	To gain knowledge on the various advertising medias
LO5	To analyse the global market environment

Prerequisite: Should have studied Commerce in XIIStd

Unit	Contents	No. of Hours
I	**Introduction to Marketing** Meaning – Definition and Functions of Marketing – Evolution of Marketing Concepts – Innovations in Modern Marketing. Role and Importance of Marketing - Classification of Markets - Niche Marketing.	15
II	**Market Segmentation** Meaning and definition – Benefits – Criteria for segmentation – Types of segmentation – Geographic – Demographic – Psychographic – Behavioural – Targeting, Positioning & Repositioning - Introduction to Consumer Behaviour–Consumer Buying Decision Process and Post Purchase Behaviour — Motives. Freud's Theory of Motivation.	15
III	**Product & Price** Marketing Mix — an overview of 4P's of Marketing Mix – Product – Introduction to Stages of New Product Development – Product Life Cycle — Pricing – Policies – Objectives –Factors Influencing Pricing– Kinds of Pricing.	15
IV	**Promotions and Distributions** Elements of promotion – Advertising – Objectives - Kinds of Advertising Media - Traditional vs Digital Media - Sales Promotion – types of sales promotion – Personal Selling –Qualities needed for a personal seller – Channels of Distribution for Consumer Goods- Channel Members – Channels of Distribution for Industrial Goods.	15

V	**Competitive Analysis and Strategies** Global Market Environment – Social Responsibility and Marketing Ethics – Recent Trends in Marketing –A Basic Understanding of E–Marketing & M–Marketing – E-Tailing – CRM –Market Research – MIS and Marketing Regulation.	**15**
	TOTAL	**75**

CO	**Course Outcomes**
CO1	Develop an understanding on the role and importance of marketing
CO2	Apply the 4p's of marketing in their venture
CO3	Identify the factors determining pricing
CO4	Use the different Channels of distribution of industrial goods
CO5	Understand the concept of E-marketing and E-Tailing

Textbooks	
1	Philip Kotler, Principles of Marketing : A South Asian Perspective, Pearson Education, NewDelhi
2	Dr.C.B.Gupta & Dr.N.Rajan Nair, Marketing Management, Sultan Chand & Sons, New Delhi.
3	Dr.Amit Kumar, Principles of Marketing, Shashi bhawan Publishing House,Chennai
4	Dr.N.Rajan Nair, Marketing, Sultan Chand & Sons.New Delhi
5	Neeru Kapoor Principles Of Marketing, PHILearning,NewDelhi

Reference Books	
1	Prof Kavita Sharma, Dr Swati Agarwal, Principles of Marketing Book,Taxmann,Newdelhi
2	Dr.J.Jayasankar, Marketing Management, Margham Publications, Chennai.
3	Assael, H.Consumer Behaviour and Marketing Action,USA :PWS-Kent

4	Hoyer, W.D. And Macinnis, D.J., Consumer Behaviour, USA: Houghton Mifflin Company
5	Baker M, Marketing Management And Strategy, Macmill an Business, Bloombury Publishing, India
NOTE: Latest Edition of Textbooks May be Used	
WebResources	
1	https://www.aha.io/roadmapping/guide/marketing/introduction
2	https://www.investopedia.com/terms/m/marketsegmentation.asp
3	https://www.shiprocket.in/blog/understanding-promotion-and-distribution-management/

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**PO 6**	**PO 7**	**PO 8**	**PSO 1**	**PSO 2**	**PSO 3**
CO1	3	2	3	2	2	2	2	2	2	3	2
CO2	3	2	3	2	3	2	2	2	2	3	2
CO3	3	2	3	2	3	2	2	2	2	3	2
CO4	3	2	3	2	2	2	2	2	2	3	2
CO5	3	2	3	2	2	2	2	2	2	3	2
TOTAL	15	10	15	10	12	10	10	10	10	15	10
AVERAGE	3	2	3	2	2.4	2	2	2	2	3	2

3 – Strong, 2- Medium, 1- Low

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SECOND YEAR – SEMESTER – IV

ELECTIVE IV – RELATIONAL DATABASE MANAGEMENT SYSTEM + UML LAB

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
247E4A	3				3	3	40	60	100

Learning Objectives	
LO1	Gain a good understanding of the architecture and functioning of Database Management Systems
LO2	Understand the use of Structured Query Language (SQL) and its syntax.
LO3	Apply Normalization techniques to normalize a database.
LO4	Understand the need of transaction processing and learn techniques for controlling the consequences of concurrent data access.

Prerequisite: Should have studied Commerce in XII Std

Unit	Contents	No. of Hours
I	Introduction to DBMS– Data and Information - Database – Database Management System – Objectives - Advantages – Components - Architecture. ER Model: Building blocks of ER Diagram –	9
II	Relationship Degree – Classification – ER diagram to Tables – ISA relationship – Constraints – Aggregation and Composition – Advantages Structure of Relational Database. Introduction to Relational Database Design - Objectives – Tools – Redundancy and Data Anomaly	9
III	– Functional Dependency - Normalization – 1NF – 2NF – 3NF – BCNF. Transaction Processing – Database Security.	9
IV	Introduction to SQL: Data Definition Commands – Data Manipulation Commands – SELECT Queries – Additional Data Definition Commands – Additional SELECT Query Keywords – Joining Database Tables. Advanced SQL:Relational SET Operators: UNION – UNION ALL – INTERSECT - MINUS.	9

V	SQL Join Operators: Cross Join – Natural Join – Join USING Clause – JOIN ON Clause – Outer Join. Sub Queries and Correlated Queries: WHERE – IN – HAVING – ANY and ALL – FROM. SQL Functions: Date and Time Function – Numeric Function – String Function – Conversion Function	**9**
	TOTAL	**45**
Course Outcomes		
CO1	Describe basic concepts of database system	
CO2	Design a Data model and Schemas in RDBMS	
CO3	Competent in use of SQL	
CO4	Analyse functional dependencies for designing robust Database	
Textbooks		
1	S. Sumathi, S. Esakkirajan, "Fundamentals of Relational Database Management System", Springer International Edition 2007.	
Reference Books		
1	Abraham Silberchatz, Henry F. Korth, S. Sudarshan, "Database System Concepts", McGrawHill 2019, 7th Edition.	
2	Alexis Leon & Mathews Leon, "Fundamentals of DBMS", Vijay Nicole Publications 2014, 2nd Edition.	
NOTE: Latest Edition of Textbooks May be Used		
Web Resources		
1	https://nptel.ac.in/courses/106106093/	
2	https://nptel.ac.in/courses/106106095/	
3	NPTEL & MOOC courses titled Relational Database Management Systems	

UNIVERSITY OF MADRAS

B.COM. DEGREE PROGRAMME IN COMPUTER APPLICATIONS

SYLLABUS WITH EFFECT FROM 2023-2024

UML Lab	**Core - Core -S5EC1/2L**
Credits 4	

Learning Objectives: (for teachers: what they have to do in the class/lab/field)

- To get familiarized to the usage of UML tool kit.
- To understand the requirements of the software and to map them appropriately to subsequent phases of the software development
- To develop the ability to verify and validate their designs

Course Outcomes: (for students: To know what they are going to learn)

CO1: Students must be able to analyse and design the problem at hand.
CO2: Students should be able to use UML tools for the designing the software and test the correctness and soundness of their software through testing tools.

LIST OF PRACTICALS
Using UML tools produce analysis and design models for a. Library Management System b. Automatic Teller Machine c. Student Information Management d. Matrimony Service e. Stock Management System

Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC – CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
Skills acquired from the Course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill

Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC – CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
Skills acquired from the Course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill

UNIVERSITY OF MADRAS
U.G. DEGREE COURSE

ENVIRONMENTAL STUDIES PROGRAMME
ABILITY ENHANCEMENT COMPULSORYCOURSES
(AECC- Environmental Studies)
Syllabus with effect from the academic year 2018-2019
(i.e. for batch of candidates admitted to the course from the academic year 2017-18)

Credits: 2 II Year / III/IV Sem.

Unit 1: Introduction to Environmental Studies

- Multidisciplinary nature of environmental studies;
- Scope and importance; concept of sustainability and sustainable development.

Unit 2 : Ecosystem (2 lectures)

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem:
  Food chains, food webs and ecological succession, Case studies of the following ecosystem:
  a) Forest ecosystem
  b) Grassland ecosystem
  c) Desert ecosystem
  d) Aquatic ecosystem (ponds, stream, lakes, rivers, ocean, estuaries)

Unit 3: Natural Resources : Renewable and Non – renewable Resources (6 lectures)

- Land resources and landuse change: Land degradation, soil erosion and desertification.
- Deforestation : Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
- Water : Use and over –exploitation of surface and ground water, floods, droughts, conflicts over water (international and inter-state).
- Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

Unit 4: Biodiversity and Conservation (8 lecturers)

- Levels of biological diversity: genetics, species and ecosystem diversity, Biogeographic zones of India: Biodiversity patterns and global biodiversity hot spots
- India as a mega- biodiversity nation, Endangered and endemic species of India.
- Threats to biodiversity: Habitat loss, poaching of wildlife, man- wildlife conflicts, biological invasions; Conservations of biodiversity: In-situ and Ex-situ Conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

Unit 5: Environmental Pollution (8 lecturers)

- Environmental pollution: types, causes, effects and controls: Air, Water, soil and noise Pollution.
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste
- Pollution case studies.

Unit 6: Environmental Policies & Practices (8 lecturers)

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act, Air (Prevention & Control of Pollution) Act; Water (Prevention and Control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human Wildlife conflicts in Indian context.

Unit 7: Human Communities and the Environment (7 lectures)

- Human population growth, impacts on environment, human health and welfare.
- Resettlement and rehabilitation of projects affected persons; case studies.
- Disaster management: floods, earthquake, cyclone and landslides.
- Environmental movements : Chipko, Silent Valley, Bishnois of Rajasthan.
- Environmental ethics : Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies(e.g. CNG Vehicles in Delhi)

Unit 8 : Field Work (6 lectures)

- Visit to an area to document environmental assets: river / forest/ flora/ fauna etc.
- Visit to a local polluted site – Urban / Rural/ Industrial/ Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystem- pond, river, Delhi Ridge etc.

(Equal to 5 Lectures)

Suggested Readings:

1. Carson , R. 2002.Slient Spring, Houghton Mifflin Harcourt.
2. Gadgil , M.,& Guha, R. 1993.This Fissured Land: An Ecological History of India. Univ.of California Press.
3. Glesson, B. and Low, N.(eds.)1999. Global Ethics and Environment, London, Routledge.
4. Gleick,P.H.1993.Water Crisis. Pacific Institute for Studies in Dev.,Environment & Security. Stockholm Env.Institute, Oxford Univ.Press.
5. Groom, Martha J., Gary K.Meffe, and Carl Ronald Carroll. Principles of Conservation Biology. Sunderland: Sinauer Associates,2006.
6. Grumbine,R.Edward, and Pandit,M.K2013.Threats from India's Himalayas dams .Science,339:36-37
7. McCully,P.1996.Rivers no more :the environmental effects of dams(pp.29-64).Zed books.
8. McNeill,John R.2000.Something New Under the Sun: An Environmental History of the Twentieth Century.
9. Odum,E.P.,Odum, H.T.& Andrees,J.1971.Fundamental of Ecology. Philadelphia Saunders.
10. Pepper,I.L.,Gerba,C.P & Brusseau,M.L.2011.Environmental and Pollution Science. Academic Press.
11. Rao,M.N.& Datta,A.K1987.Waste Water Treatment. Oxford and IBH Publishing Co.Pvt.Ltd.
12. Raven,P.H.,Hassenzahl,D.M & Berg,L.R.2012 Environment.8th edition. John Willey & sons.

13. Rosencranz, A., Divan,S.,& Noble, M.L.2001.Environmental law and policy in India. Tirupathi 1992.
14. Sengupta,R.2003.Ecology and Economics: An approach to sustainable development.OUP
15. Singh,J.S.,Singh,S.P and Gupta,S.R.2014.Ecology,Environmental Science and Conservation. S.Chand Publishing, New Delhi.
16. Sodhi,N.S.,Gibson,L.&Raven ,P.H(eds).2013.Conservation Biology :Voices from the Tropics. John Willey & Sons.
17. Thapar,V.1998.Land of the Tiger: A Natural History of the Indian Subcontinent.
18. Warren,C.E.1971.Biology and water Pollution Control. WB Saunders.
19. Willson,E.O.2006. The Creation: An appeal to save life on earth..New York: Norton.
20. World Commission on Environment and Development.1987.Our Common Future. Oxford University Press.

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UNIVERSITY OF MADRAS
U.G. DEGREE COURSE

PART – IV - VALUE EDUCATION

Common for all U.G. & Five Year Integrated Courses
(Effective from the Academic Year 2012 – 2013)

SYLLABUS

CREDITS: 2 **III YEAR / V SEM**

Objective: Value are socially accepted norms to e valuate objects, persons and situations that form part and parcel of sociality. A value system is a set of consistent values and measures. Knowledge of the values are inculcated through education. It contributes in forming true human being, who are able to face life and make it meaningful. There are different kinds of values like, ethical or moral values, doctrinal or ideological values, social values and aesthetic values. Values can be defined as broad preferences concerning appropriate courses of action or outcomes. As such, values reflect a person's sense of right and wrong or what "ought" to be. There are representative values like, "Equal rights for all", "Excellence deserves admiration". "People should be treated with respect and dignity". Values tend to influence attitudes and behavior and help to solve common human problems. Values are related to the norms of a culture.

UNIT I: Value education-its purpose and significance in the present world – Value system – The role of culture and civilization – Holistic living – balancing the outer and inner – Body, Mind and Intellectual level – Duties and responsibilities.

UNIT II: Salient values for life – Truth, commitment, honesty and integrity, forgiveness and love, empathy and ability to sacrifice, care, unity, and inclusiveness, Self esteem and self confidence, punctuality – Time, task and resource management – Problem solving and decision making skills – Interpersonal and Intra personal relationship – Team work – Positive and creative thinking.

UNIT III: Human Rights – Universal Declaration of Human Rights – Human Rights violations – National Integration – Peace and non-violence – Dr.A P J Kalam's ten points for enlightened citizenship – Social Values and Welfare of the citizen – The role of media in value building.

UNIT IV: Environment and Ecological balance – interdependence of all beings – living and non-living. The binding of man and nature – Environment conservation and enrichment.

UNIT V: Social Evils – Corruption, Cyber crime, Terrorism – Alcoholism, Drug addiction – Dowry – Domestic violence – untouchability – female infanticide – atrocities against women – How to tackle them.

Books for Reference :

1. M.G. Chitakra: Education and Human Values, A.P.H. Publishing Corporation, New Delhi, 2003.
2. Chakravarthy, S.K: Values and ethics for Organizations: Theory and Practice, Oxford University Press, New Delhi, 1999.
3. Satchidananda, M.K: Ethics, Education, Indian Unity and Culture, Ajantha Publications, Delhi, 1991.
4. Das, M.S. & Gupta, V.K.: Social Values among Young adults: A changing Scenario, M.D. Publications, New Delhi, 1995.
5. Bandiste, D.D.: Humanist Values: A Source Book, B.R. Publishing Corporation, Delhi, 1999.
6. Ruhela, S.P.: Human Values and education, Sterling Publications, New Delhi, 1986.
7. Kaul, G.N.: Values and Education in Independent Indian, Associated Publishers, Mumbai, 1975.
8. NCERT, Education in Values, New Delhi, 1992.
9. Swami Budhananda (1983) How to Build Character A Primer : Rmakrishna Mission, New Delhi.
10. A Culture Heritage of India (4 Vols.), Bharatiya Vidya Bhuvan, Bombay, (Selected Chapters only)
11. For Life, For the future : Reserves and Remains – UNESCO Publication.
12. Values, A Vedanta Kesari Presentation, Sri Ramakrishna Math, Chennai, 1996.
13. Swami Vivekananda, Youth and Modern India, Ramakrishna Mission, Chennai.
14. Swami Vivekananda, Call to the Youth for Nation Building, Advaita Ashrama, Calcutta.
15. Awakening Indians to India, Chinmayananda Mission, 2003.

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