

**SACRED HEART COLLEGE (AUTONOMOUS)**

**DEPARTMENT OF BOTANY**

**BACHELOR OF SCIENCE**

**Course plan**

**Academic Year 2018-19**

**Semester 2**

## COURSE PLAN

<b>PROGRAMME</b>	<b>BACHELOR OF SCIENCE, BOTANY</b>	<b>SEMESTER</b>	<b>2</b>
<b>COURSE CODE AND TITLE</b>	<b>15U2CRBOT02: MYCOLOGY, LICHENOLOGY AND PLANT PATHOLOGY</b>	<b>CREDIT</b>	<b>3</b>
<b>HOURS/WEEK</b>	<b>4</b>	<b>HOURS/SEM</b>	<b>72</b>
<b>FACULTY NAME</b>	<b>DR. IMA NEERACKAL AND MS. ANNIE XAVIER</b>		

### PROGRAMME OUTCOME

	<b>PROGRAMME OUTCOME</b>
PO 1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO 2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media and technology.
PO 3	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act an informed awareness of issues and participate in civic life through volunteering.
PO 4	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
PO5	<b>Ethics:</b> Recognise different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO 6	<b>Global Perspective:</b> Understand the economic, social and ecological connections that link the world's nations and people.

### PROGRAM SPECIFIC OUTCOMES

PSO 1	Understand functional and theoretical concepts of the biological world and their relative role in the sustainability of natural habitats and biodiversity (PO1, PO2, PO3, PO4, PO5,PO6)
PSO 2	Understand knowledge on the evolutionary relationships among the plant (PO1, PO4, PO6)
PSO 3	Understand the applications of plant biology in various disciplines (PO1,PO3, PO4, PO5)
PSO 4	Perform laboratory procedures as per ethics and following standard protocols (PO1, PO2, PO5)

PSO5	Synthesize the scientific character of observation, reasoning and apply the knowledge in designing of experiments (PO1, PO2, PO3,PO5, PO6)
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	<b>COURSE OUTCOMES</b>	<b>PO/ PSO</b>	<b>CL</b>
CO 1	Students would define the diversity of fungi and Lichens	PO1,PO2, PO6, PSO2, PSO3	U
CO 2	Students will be able to explain the reproductive behavior in fungi and lichen	PO1, PSO2, PSO3	A
CO 3	Students will be able to apply the biotechnological application of fungi	PO1, PO2, PSO1	U
CO 4	Students would analyze the economic significance of the fungal world	PO1, PO2, PSO1, PSO2,PSO4	An
CO 5	Students will be equipped to evaluate the requirement of mushroom cultivation at a small scale industry level	PO1, PO2, PO3, PO4, PO5, PSO2, PSO3	U
CO 6	Students will be able to develop strategies to identify plant diseases and it's control measures	PO1, PO2, PO3, PO4, PO5, PSO2, PSO3	S

CL\* Cognitive Level

<b>SESSION</b>	<b>TOPIC</b>	<b>LEARNING RESOURCES</b>	<b>VALUE ADDITIONS</b>	<b>COURSE OUTCOME</b>
<b>MODULE I</b>				
1.	Introduction to the course	PPT	video	CO 1
2.	Classification based on Ainsworth (1973)	PPT/Lecture		CO 1
3.	Myxomycotina – General Characters	PPT/Lecture		CO 1
4.	Mastigomycotina - General Characters	PPT/Lecture		CO 1
5.	<i>Albugo</i> .	PPT/Lecture		CO 1,2
6.	Zygomycotina General Characters	PPT/Lecture		CO 1
7.	<i>Rhizopus</i>	Lecture		CO 1,2
8.	Ascomycotina	Lecture		CO 1,2
9.	<i>Saccharomyces</i>	Lecture		CO 1,2
10.	<i>Saccharomyces</i>	Lecture		CO 1,2
11.	<i>Pencillium</i>	PPT/Lecture		CO 1,2
12.	<i>Xylaria</i>	PPT/Lecture		CO 1,2
13.	<i>Peziza</i>	PPT/Lecture		CO 1,2
14.	Basidiomycotina - General Characters	PPT/Lecture		CO 1,2
15.	<i>Puccinia</i>	PPT/Lecture	video	CO 1, 2
16.	<i>Puccinia</i>	Lecture		CO 1,2
17.	<i>Agaricus</i>	Lecture		CO 1,2
18.	<i>Fusarium</i> , evolutionary trends in fungus	Lecture		CO 1,2
<b>MODULE II</b>				
19.	Economic importance of Fungi – useful and	PPT/Lecture		CO 4

	harmful aspects			
20.	Fungi of Agricultural importance – mycoherbicides	PPT/Lecture	video	CO 4
21.	myconematicides, mycoparasites	PPT/Lecture		CO 4
22.	Fungal biotechnology- Fundamental principles.	PPT/Lecture		CO 3
23.	Mushrooms- edible and poisonous types	Lecture		CO 5
24.	cultivation technique-Spawn production	Lecture		CO 5
25.	Cultivation of Oyster mushroom			
CIA-1				
<b>PRACTICALS</b>				
26.	<i>Albugo</i>	Hands on session		CO 1,2
27.	<i>Albugo</i>	Hands on session		CO 1,2
28.	<i>Rhizopus</i>	Hands on session		CO 1,2
29.	<i>Rhizopus</i>	Hands on session		CO 1,2
30.	<i>Saccharomyces</i>	Hands on session		CO 1,2
31.	<i>Saccharomyces</i>	Hands on session		CO 1,2
32.	<i>Pencillium</i>	Hands on session		CO 1,2
33.	<i>Pencillium</i>	Hands on session		CO 1,2
34.	<i>Xylaria</i>	Hands on session		CO 1,2
35.	<i>Xylaria</i>	Hands on session		CO 1,2
36.	<i>Peziza</i>	Hands on session		CO 1,2
37.	<i>Peziza</i>	Hands on session		CO 1,2
38.	<i>Puccinia</i>	Hands on session		CO 1,2
39.	<i>Puccinia</i>	Hands on session		CO 1,2
40.	<i>Fusarium</i>	Hands on session		CO 1,2
41.	<i>Fusarium</i>	Hands on session		CO 1,2
42.	<i>Parmelia</i>	Hands on session		CO 1,2
43.	<i>Parmelia</i>	Hands on		CO 1,2

		session		
44.	Isolation and culture of Oyster mushroom mycelium.	Hands on session		CO 5
45.	Isolation and culture of Oyster mushroom mycelium.	Hands on session		CO 5
46.	Preparation of bed for mushroom cultivation.	Hands on session		CO 5
47.	Preparation of bed for mushroom cultivation.	Hands on session		CO 5
48.	Staining of endomycorrhiza or fungus using Trypan Blue	Hands on session		CO 4
49.	Staining of endomycorrhiza or fungus using Trypan Blue	Hands on session		CO 4
50.	Repetition if needed			
51.	Repetition if needed			
52.	Repetition if needed			
<b>LICHENOLOGY Module 1</b>				
53.	General account , economic and ecological importance of lichen	PPT/Lecture		CO 1,2,4
54.	Structure, reproduction and life cycle of <i>Parmelia</i> .	PPT/Lecture		CO 1,2
<b>PLANT PATHOLOGY Module 1</b>				
55.	History of plant pathology, Classification of plant diseases on the basis of causative organism and symptoms, Host parasite interaction	PPT/Lecture		CO 6
56.	Defense mechanism in host, Mechanism of infection, transmission and dissemination of diseases.	PPT/Lecture		CO 6
<b>Module 2</b>				
57.	Control of plant diseases – Prophylaxis-quarantine measures, seed certification Therapeutic – physical therapy, chemotherapy. Biological control.	PPT/Lecture		CO 6
<b>CIA 2</b>				
<b>Module 3</b>				
58.	Bunchy top of Banana, Cassava Mosaic Disease	PPT/Lecture		CO 6
59.	Citrus Canker Root, wilt of Coconut.	PPT/Lecture		CO 6
60.	Abnormal leaf fall of Rubber.	PPT/Lecture		CO 6
61.	Fungicides - Bordeaux mixture, Tobacco Neem decotion, preparation.	PPT/Lecture		CO 6
<b>Module 4</b>				
62.	Medical mycology- Mention about fungal infections of man – Fungal allergens Athlet's	PPT/Lecture		CO 6

	foot, aspergillosis, candidiosis, aflatoxin			
<b>PRACTICALS</b>				
63.	Bunchy top of Banana	Experiential learning		CO 6
64.	Cassava Mosaic Disease	Experiential learning		CO 6
65.	Citrus Canker	Experiential learning		CO 6
66.	Root wilt of Coconut	Experiential learning		CO 6
67.	Abnormal leaf fall of Rubber	Experiential learning		CO 6
68.	herbarium preparation	Hands on session		CO 6
69.	herbarium preparation	Hands on session		CO 6
70.	herbarium preparation	Hands on session		CO 6
71.	Bordeaux mixture	Hands on session		CO 6
72.	Tobacco decotion			CO 6

#### INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)	Couse Outcome
1	4/10/2018	Collection and identification of various species listed in the syllabus	CO 1,2,5
2	25/10/2018	Fungus as a tool in genetic engineering	CO3,4

#### REFERENCES

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2. Ainsworth G.C ., Sparrow K.F & Sussman A.S (eds) 1973. The Fungi an advanced Treatise, Vol. 4 a & 4b, a Taxonomic review with keys , academic press New York.
3. Alexopoulos C.J, Mims, C.W & C.W Blackwell,M 1996 Introductory Mycology .John Willy and sons, INC . New York.
4. Bilgrami K.S and Dube H.C 1976 A Text book of Modern Plant pathology ,: Vikas
5. Campbell R 1987 Plant Microbiology , ELBS Edward Arnold , London .
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7. Greth Jones,D 1989 Plant Pathology –Principles and Practice , Aditya books, New Delhi.
8. Gupta V .K & Paul T.S 2004, Fungi & Plant deseases. Kalyani publishers , New Delhi
9. Hale M.E 1983 The Biology of Lichen,3rd edition Edward Arnold, London.
10. Jim Deacon 2007 Fungal Biology , 4th edition , Blackwell Publishing ,Ane Books Pvt. Ltd.
11. Jim Deacon, 2007. Fungal Biology. Black Well Publishing.
12. Krishnamurthy K.V. 2004. An Advanced Text Book on Biodiversity Principles and practice. Oxford and IBH Publishing Co. Pvt. Ltd.
13. Malhotra & Aggarwal Ashok 2003 Plant Pathology, Tata Mc Graw Hill Publishing Co
14. Mamatha Rao, 2009, Microbes and Non flowering plants- impact and application Ane Boopks Pvt Ltd.
15. Misra A and Agrawa P.R 1978 Lichens ,New Delhi : Oxford and IBH.
16. Nair M.C (eds) 1990 Mushroom Technical Bulletin 17 , Kerala Agricultural University Mannuthy
17. Nita Bahl 2002. Hand book on Mushrooms, Oxford & IBH Publishing C. Pvt. Ltd. New Delhi.
18. Sharma P.D 2004 , The Fungi , 2nd Edition , Rasthogi publication
19. Singh, Pande Jain 2007, Diversity of Microbes and Cryptogam, Rastogi Publications.
20. Tripati D.P 2005. Mushroom Cultivation, Oxford & IBH Publishing Co. Pvt. Ltd. New Delhi.
21. Vasishta B.R !990 Botany for Degree Students , Fungi S. Chand &Co, NewDelhi.

### COURSE PLAN

<b>PROGRAMME</b>	<b>COMPLEMENTARY CHEMISTRY FOR BACHELOR OF SCIENCE IN BOTANY</b>	<b>SEMESTER</b>	<b>2</b>
<b>COURSE CODE AND TITLE</b>	<b>15U2CPCHE2: BASIC ORGANIC CHEMISTRY</b>	<b>CREDIT</b>	<b>2</b>
<b>HOURS/WEEK</b>	<b>2</b>	<b>HOURS/SEM</b>	<b>36</b>
<b>FACULTY NAME</b>	<b>DR. IGNATIUS ABRAHAM AND DR. RAGI A S</b>		

<b>PROGRAMME OUTCOME</b>	
PO 1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO 2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media and technology.
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PO 6	<b>Global Perspective:</b> Understand the economic, social and ecological connections that link the world's nations and people.

<b>PROGRAM SPECIFIC OUTCOMES</b>	
PSO 1	Explain the basic concepts and solve the problems related to inorganic, organic theoretical and physical chemistry.
PSO 2	Apply the principles of chemistry in industry, agriculture, medicine and environment.
PSO 3	Experiment, analyse and draw conclusions from qualitative, quantitative and synthetic laboratory exercises in chemistry.
PSO 4	Design projects in different fields of chemistry and develop research aptitude.

<b>COURSE OUTCOMES</b>		<b>PO / PSO</b>	<b>CL</b>
CO 1	Understand the basics of organic chemistry.	PO 1, PSO 1	U
CO 2	Understand various purification techniques like solvent extraction, distillation and crystallization.	PO 1, PSO 1	U



CO 3	Develop an idea on stereochemistry of organic compounds	PO 1, PSO 1	U
CO 4	Explain the basics of organic reaction mechanism.	PO 1, PSO 1	U
CO 5	Discuss the classification and synthesis of polymers.	PO 6, PSO 2	U
CO 6	Discuss the hazards of synthetic polymers/ plastics.	PO 6, PSO 2	U
CO 7	Understand the concept of biodegradable alternatives for plastics.	PO 6, PSO 2	U

CL\* Cognitive Level

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	COURSE OUTCOME
<b>MODULE I : Purification of Organic Compounds : Dr. Ragi A S (3h)</b>				
1	Purification techniques: Recrystallisation, sublimation.	Chalk & Board	Q & A Session	CO 2
2	General principles of distillation, fractional distillation, distillation under reduced pressure	Chalk & Board		CO 2
3	Solvent extraction	Chalk & Board		CO 2
<b>MODULE II: Stereochemistry of Organic Compounds: Dr. Ignatious Abraham (11h)</b>				
4	Geometrical isomerism- <i>cis</i> and <i>trans</i> configuration, 2-butene, maleic and fumaric acid,	Chalk & Board		CO 3
5	Determination of configuration of <i>cis-trans</i> isomers, E and Z configuration.	Chalk & Board		CO 3
6	Optical isomerism- D and L configuration. Optical activity,	Chalk & Board	quiz	CO 3
7	Chirality, Stereogenic Centre	Chalk & Board		CO 3
8	Enantiomers and diastereomers	Chalk & Board		CO 3
9	Optical isomerism in lactic acid and tartaric acid	Chalk & Board	quiz	CO 3
10	Racemisation	Chalk & Board		CO 3
11	Conformation- Newman projection, Saw-horse projection	Chalk & Board		CO 3
12	Conformations of Ethane	Chalk & Board		CO 3
13	n - butane	Chalk & Board		CO 3
14	Cyclohexane.	Chalk & Board		CO 3
<b>MODULE III: Mechanisms of Organic Reactions: Dr.Ragi A.S (15h)</b>				
15	Hybridization and shape of molecules - $sp^3$ , $sp^2$ and $sp$ , (ethane, ethene, ethyne)	Chalk & Board	quiz	CO 4
16	Types of reagents - electrophiles, nucleophiles.	Chalk & Board		CO 4
17	Types of electron displacement in organic molecules	Chalk & Board		CO 4
18	Explanation of the strength of carboxylic and halogen substituted acids,	Chalk & Board		CO 4
19	Basic strength of primary, secondary and tertiary amines.	Chalk & Board	Q & A Session	CO 4
20	Types of bond fission- homolytic and heterolytic	Chalk & Board		CO 4

	fission.			
21	Reactive intermediates - carbocations-Their formation and stability.	Chalk & Board		CO 4
22	Substitution reactions: Nucleophilic substitution of alkyl halides- $S_N1$ and $S_N2$ mechanisms. Factors affecting rate of Substitution reaction of alkyl halide. Nature of alkyl halide, Effect of solvent. Stereochemistry of $S_N1$ and $S_N2$ reactions.	Chalk & Board		CO 4
23	Electrophilic substitution in benzene-reaction mechanism. Halogenation, Nitration and Sulphonation	Chalk & Board		CO 4
24	Addition reactions: electrophilic addition. Addition of Bromine and Hydrogen halides to ethane, propene and ethyne-the Markwonikoff's rule, Peroxide effect.	Chalk & Board		CO 4
25	Reactive intermediates- free radicals. Their formation and stability.	Chalk & Board		CO 4
26	Substitution reactions: Nucleophilic substitution of alkyl halides- $S_N1$ and $S_N2$ mechanisms. Factors affecting rate of Substitution reaction of alkyl halide. Nature of alkyl halide, Effect of solvent. Stereochemistry of $S_N1$ and $S_N2$ reactions.	Chalk & Board		CO 4
27	Electrophilic substitution in benzene-reaction mechanism. Halogenation, Nitration and Sulphonation	Chalk & Board		CO 4
28	Addition reactions: electrophilic addition. Addition of Bromine and Hydrogen halides to ethane, propene and ethyne-the Markwonikoff's rule, Peroxide effect.	Chalk & Board		CO 4
29	Elimination reactions: $E1$ and $E2$ mechanisms. Saytzeff and Hofmann elimination	Chalk & Board		CO 4
<b>MODULE IV: Natural and Synthetic Polymers: Dr.Ignatious Abraham (7h)</b>				
30	Classification of polymers: Natural, synthetic; linear, cross-linked and network; plastics, elastomers, fibres; homopolymers and copolymers.	Chalk & Board	Quiz	CO 5
31	Polymerization reactions, Addition Polymerization,	Chalk & Board		CO 5
32	Condensation polymerization,	Chalk & Board		CO 5
33	Polyethene, polypropylene, PVC, phenol-formaldehyde resins, polyamides (nylons) and polyester.	Chalk & Board		CO 5
34	Natural rubber: structure, vulcanization.	Chalk & Board		CO 5
35	Synthetic rubbers- SBR, nitrile rubber,	Chalk & Board		CO 5

	neoprene.			
36	Biodegradable polymers, environmental hazards caused by polymers, Health problem due to burning plastics.	Chalk & Board		CO 6 and CO 7

#### INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)	Course Outcome
1	04/12/2018	Conformations	CO 2
2	28/01/2019	SN1 and SN2 reactions	CO 4

#### GROUP ASSIGNMENTS/ACTIVITES – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)	Course Outcome
1	02/02/2019	Biodegradable Polymers	CO 7

#### REFERENCES

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6. V. R. Gowariker, Polymer Science, Wiley Eastern.
7. K.S Tewari, N K Vishnoi, Text book of Organic Chemistry, Vikas Publishing House Pvt. Ltd.2007.

### COURSE PLAN

<b>PROGRAMME</b>	<b>B.SC. ZOOLOGY COMPLEMENTARY COURSE</b>	<b>SEMESTER</b>	<b>2</b>
<b>COURSE CODE AND TITLE</b>	<b>19U1CPZOO1: ANIMAL DIVERSITY - CHORDATA</b>	<b>CREDIT</b>	<b>2</b>
<b>HOURS/WEEK</b>	<b>4</b>	<b>HOURS/SEM</b>	<b>36</b>
<b>FACULTY NAME</b>	<b>DR. DIVYA SEBASTIAN</b>		

<b>PROGRAMME OUTCOME</b>	
PO 1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO 2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media and technology.
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PO 6	<b>Global Perspective:</b> Understand the economic, social and ecological connections that link the world's nations and people.

<b>PROGRAM SPECIFIC OUTCOMES</b>	
PSO 1	Understand faunal diversity through scientific classification to grasp and appreciate the complex interactions among them and the environment and their role in sustainable environment.
PSO 2	Understand the principles of aquaculture, sericulture, apiculture, vermiculture, poultry and cattle farming for the economic prosperity of the society.
PSO 3	Understand the concepts and principles of biochemistry, animal physiology, cell biology, molecular biology, genetics, biotechnology, general informatics and bioinformatics, endocrinology, developmental biology, evolution, zoogeography, ethology, ecology, disaster management, toxicology, microbiology, immunology, nutrition, community health, sanitation, ecotourism, biostatistics and research methodology and their applications in day-to-day life.
PSO 4	Perform laboratory procedures in the areas of morphology, anatomy, taxonomy, applied zoology, biochemistry, animal physiology, cell biology, molecular biology, genetics, biotechnology, general informatics and bioinformatics, endocrinology, developmental biology, evolution, zoogeography, ethology, ecology, microbiology and immunology.

	<b>COURSE OUTCOMES</b>	<b>PO/ PSO</b>	<b>CL</b>
CO 1	Understand taxonomy of Phylum Chordata, sub phyla Urochordata and Cephalochordate their classes and specific examples.	PO1, PO2, PO6, PSO2, PSO3	U
CO 2	Understand the taxonomy and salient features of Sub phylum Vertebrata, divisions Agnatha and Gnathostomata, super class Pisces and its various classes with typical examples	PO1, PSO2, PSO3	A
CO 3	Understand the accessory respiratory organs in fish.	PO1, PO2, PSO1	U
CO 4	Analyze the morphological aspects, structural and functional characteristics of frog.	PO1, PO2, PSO1, PSO2, PSO4	An
CO 5	Understand salient features of class Reptilia, its various subclasses with examples, identifying poisonous and nonpoisonous snakes.	PO1, PO2, PO3, PO4, PO5, PSO2,	U
CO6	Understand Avian characteristics, its taxonomy and flight adaptations.	PO1 and PO4 PSO1	
CO7	Understand the general characteristics of Class Mammalia and its classification.	PO1 PSO1	
CO8	Understand adaptations in aquatic mammals.	PO1 and PO4 PSO1	

CL\* Cognitive Level

<b>SESSION</b>	<b>TOPIC</b>	<b>LEARNING RESOURCES</b>	<b>VALUE ADDITIONS</b>	<b>COURSE OUTCOME</b>
<b>Module I: Phylum Chordata</b>				
1	General Characters	PPT	Video	CO 1
2	Classification up to Classes	PPT/Lecture	Video	CO 1
3	Sub phylum I: Urochordata	PPT/Lecture	Animation	CO 1
4	Sub phylum I: Urochordata contd...	PPT/Lecture	E-resource	CO 1
5	Sub phylum II: Cephalochordate	PPT/Lecture	Video	CO 1
6	<b>CIA</b>			
7	Sub phylum II: Cephalochordata contd..	PPT/Lecture	Video	CO 1
8	Sub phylum II: Cephalochordata contd Sub phylum III: Vertebrata	Lecture	E-resource	CO 1
9	Sub phylum III: Vertebrata contd..,	Lecture	Charts	CO 1
<b>Module II -Pisces</b>				
10	Super class Pisces General characters	PPT		CO 2
11	Class 1. Chondrichthyes eg. Narcine	PPT/Lecture	Animation	CO2
12	Class 2. Osteichthyes eg. Latimeria	PPT/Lecture	E-resource	CO2
13	Accessory respiratory organs in fishes.	PPT/Lecture	Video	CO3
<b>Module III</b>				
14	Super Class Tetrapoda	PPT/lecture		CO4

15	General characters	PPT/Lecture		CO4
16	Class : Amphibian General characters	PPT/Lecture	Video	CO4
17	Type: Rana hexadactyla	PPT/Lecture		CO4
18	Order I. Urodela eg. Amblystoma	PPT/Lecture		CO4
19	Order II. Anura eg. Bufo	PPT/Lecture		CO4
20	Order III. Apoda eg. Ichthyophis	PPT/Lecture		CO4
21	Type: Frog Introduction	PPT/Lecture		CO4
22	Type: Frog Morphology	PPT/Lecture	Demo	CO4
23.	Frog -digestive system	PPT/Lecture	Demo	CO4
24	Frog-Respiratory system	PPT/Lecture	Demo	CO4
25	Anatomy Nervous system	PPT/Lecture	Demo	CO4
26	Anatomy -Circulatory System	PPT/Lecture		CO4
27	Anatomy -Reproductive system	PPT/Lecture		CO4
28	Skeletal System, Endoskeleton	PPT/Lecture	Demo	CO4
<b>Module IV: Class Reptilia</b>				
29	General characters Subclass I: Anapsida eg. Chelone	PPT/Lecture		CO 5
30	Subclass II Diapsida eg. Chameleon, Subclass III Parapsida eg. Ichthyosaurus Poisonous and non-poisonous snakes of India	PPT/Lecture	Video	CO 5
<b>Module V: Class Aves</b>				
31	General characters, Subclass I: Archeornithes eg: Archaeopteryx	PPT/Lecture		CO 6
32	Discussion on CIA-II; Subclass II. Neornithes eg: Struthio, Flight adaptations of birds	PPT/Lecture	Video	CO 6
<b>Module VI: Class Mammalia</b>				
33	General characters, Subclass I Prototheria eg. Echidna, Subclass II Metatheria eg. Macropus	Lecture	Video	CO 7
34	Revision			
35	Aquatic mammals	Lecture	Video	CO 8
36	<b>EVALUATION OF COURSE</b>			

#### INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment -Individual Presentation	Course Outcome
1	4/1/2019	Chordates around you -video presentation	CO 1

### GROUP ASSIGNMENTS/ACTIVITIES – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)	Course Outcome
1	2/2/2019	Project regarding the common Venomous & Non venomous snakes in India	CO5

### REFERENCES

- Animal Diversity (2002). Zoological Society Of Kerala Study Material Series. Published by Zoological Society of Kerala
- Ekamberanatha Ayyar M. (1990) A Manual of Zoology, Volume I. Vertebrate Part I and Part II S. Viswanathan Printers & Publishers Pvt. Ltd.
- Young J.Z. 1981. The life of Vertebrates (Oxford University)
- Induchoodan, 1986, Kweralathile Pakshikal (Kerala Sahitya Academy, Trichur).
- Kapoor, V.C. 1994, Theory and Practice of Animal Taxonomy (Oxford and IBM Publishing Co. New Delhi.
- Lagler, K.F. , Bardach, J.E. , Miller, R.R. Passino, D.R.M. 1977 Ichthyology (John Wiley and Sons).
- Mayer, E. 1980. Principles of Systematic Zoology (Tata McGraw Hill Publishing Co. New Delhi.

### Web resource references:

1. <https://animaldiversity.org/accounts/Chordata/>

**COURSE PLAN – LANGUAGE – ENGLISH -III**

<b>PROGRAMME</b>	<b>BA / BSc</b>	<b>SEMESTER</b>	<b>2</b>
<b>COURSE CODE AND TITLE</b>	<b>15U2CCENG4 : MUSINGS ON VITAL ISSUES</b>	<b>CREDIT</b>	<b>3</b>
<b>HOURS/WEEK</b>	<b>4</b>	<b>HOURS/SEM</b>	<b>72</b>
<b>FACULTY NAME</b>			

<b>PROGRAMME OUTCOME</b>	
PO 1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO 2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media and technology.
PO 3	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act an informed awareness of issues and participate in civic life through volunteering.
PO 4	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
PO5	<b>Ethics:</b> Recognise different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO 6	<b>Global Perspective:</b> Understand the economic, social and ecological connections that link the world's nations and people.

**PROGRAMME SPECIFIC OUTCOME**

PSO1: Demonstrate knowledge about the socio-historical and cultural context of literary works in English and demonstrate in-depth knowledge about select texts.
PSO2: Identify and describe the thematic and literary features of select works in English and align them with the socio-political and cultural milieu.
PSO3: Articulate knowledge through oral, written or performative means, using appropriate style and register.
PSO4: Edit text, set the layout, create illustrations and publish articles, journals and books.
PSO5: Demonstrate an understanding of various critical theories and reading strategies and engage with texts - literary, performance, visual etc, – from the point of view of various critical approaches and draw from them the dynamics of the relationship between nature and culture.
PSO6: Conduct independent research in the area of literary and cultural studies and produce new and critical knowledge.



### COURSE OUTCOME

CO1: Explore the world of literature further and appreciate the universality of human experience and aspirations.
CO2: Comprehend different genres of writings – essays, poetry and short story.
CO3: Evaluate literature and develop their ability to read texts critically.
CO4: Develop a sense of appreciation and proficiency in language.

Sessions	Topic	Method	Course Outcome	Remarks/ Reference
1	Introducing the text book	Group Discussion	CO1	
2	The dark side of growth	Lecture	CO1	
3	The dark side of growth	Lecture	CO1	
4	The dark side of growth	Lecture	CO1	
5	The dark side of growth	Lecture	CO1	
6	Discussing the questions	Group Presentations	CO4	
7	Money madness(D.H Lawrence)	Discussion	CO1	
8	Money madness(D.H Lawrence)	Lecture, Presentation by the students	CO1	
9	For the disposed( S. Joseph)	Lecture, discussion	CO1	
10	For the disposed( S. Joseph)	Lecture, discussion	CO1	
11	First Internals			
12	The social costs of Economic Globalization	Presentation by the students	CO2	
13	The social costs of Economic Globalization	Presentation by the students	CO2	
14	The social costs of Economic Globalization	Presentation by the students	CO2	
15	Distribution of answer sheets	Discussion, correction of common mistakes	CO3	
16	The universal declaration of human rights	Discussion on the evolution of the declaration of rights-discussion on natural rights	CO3	

		and legal rights, concept of rights in various religions.		
17	The universal declaration of human rights	Discussion, answering the questions	CO3	
18	Human Rights and Legal Responsibilities- Nani A. Palkhivala	Lecture- discussion on the concept of freedom, legal awareness, human rights violations in the society, rights of woman...	CO3	
19	Human Rights and Legal Responsibilities- Nani A. Palkhivala	Analysis of answers and presentation by the students	CO3	
20	Twelve Million Black Voices- Richard Wright	Discussion on African-American writing, Slave narratives, emancipation of blacks, Dalit writings..	CO3	
21	Twelve Million Black Voices- Richard Wright	Discussion on African-American writing, Slave narratives, emancipation of blacks, Dalit writings..Analysis of answers and presentations by the students	CO2	
22	Lost Forests- Johannes V. Jensen	Lecture on Slave narratives, African- American writing, concept of freedom, bonded labour, child labour, poverty..	CO3	
23	Lost Forests- Johannes V. Jensen	Presentation of answers by the students	CO4	
24	Why I Want a Wife- Judy Brady	Discussion on marriage, division of job, Sufferings of women, equal status of women, sexual exploitation...	CO4	
25	Mother's Day- J.B. Priestly	Role play	CO4	
26	Mother's Day- J.B. Priestly	Role play	CO4	
27	REVISION			

28	REVISIN			
29	Second Internal examination			
30	Distribution of Answer Sheets	Correction of common mistakes	CO4	

### ASSIGNMENT

	<i>Date of submission/completion</i>	<i>Topic of Assignment&amp; Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)</i>	<i>Weightage</i>
1		Review of a book, article	5marks

### REFERENCE

Dr P J George Ed. Musings on Vital Issues. Orient Blackswan and Mahatma Gandhi University.

**COURSE PLAN – LANGUAGE – ENGLISH – IV**

<b>PROGRAMME</b>	<b>BA ENGLISH</b>	<b>SEMESTER</b>	<b>2</b>
<b>COURSE CODE AND TITLE</b>	<b>15U2CCENG3: CRITICAL THINKING, ACADEMIC WRITING AND PRESENTATION</b>	<b>CREDIT</b>	<b>4</b>
<b>HOURS/WEEK</b>	<b>5</b>	<b>HOURS/SEM</b>	<b>90</b>
<b>FACULTY NAME</b>			

<b>PROGRAMME OUTCOME</b>	
PO 1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO 2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media and technology.
PO 3	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act an informed awareness of issues and participate in civic life through volunteering.
PO 4	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
PO 5	<b>Ethics:</b> Recognise different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO 6	<b>Global Perspective:</b> Understand the economic, social and ecological connections that link the world's nations and people.

**PROGRAMME SPECIFIC OUTCOME**

<b>PSO1:</b> Demonstrate knowledge about the socio-historical and cultural context of literary works in English and demonstrate in-depth knowledge about select texts.
<b>PSO2:</b> Identify and describe the thematic and literary features of select works in English and align them with the socio-political and cultural milieu.
<b>PSO3:</b> Articulate knowledge through oral, written or performative means, using appropriate style and register.
<b>PSO4:</b> Edit text, set the layout, create illustrations and publish articles, journals and books.
<b>PSO5:</b> Demonstrate an understanding of various critical theories and reading strategies and engage with texts - literary, performance, visual etc, – from the point of view of various critical approaches and draw from them the dynamics of the relationship between nature and culture.
<b>PSO6:</b> Conduct independent research in the area of literary and cultural studies and produce new and critical knowledge.

## COURSE OUTCOMES

CO1: Comprehends fundamental concepts of critical reasoning and develops the capacity to read and respond critically, drawing conclusions, generalizing, differentiating fact from opinion and creating their own arguments.

CO2: Develops appropriate and impressive writing styles for various contexts.

CO3: Write and correct structural imperfections and edit what they have written.

CO4: Develops capacity for making academic presentations effectively and impressively.

SESSIONS	TOPIC	METHOD	COURSE OUTCOME	REMARKS/REFERENCE
1	Introduction to Critical Thinking	Lecture	CO 1	
2	Reasoning and Arguments	Discussion	CO1	
3	Deductive and Inductive Arguments	Lecture	CO1	
4	Fallacies	Lecture	CO1	
5	Inferential Comprehension	Reading Exercises	CO1	
6	Critical Thinking and Academic Writing	Lecture	CO1	
7	Critical Thinking and Academic Writing	Exercises	CO1	
8	Writing Models	Introductory Lecture	CO2	
9	Writing Letters	General Principles	CO2	
10	Writing a Letter to the Editor	Exercise - 1	CO2	
11	Letter to the Editor	Discussion on the Samples done	CO2	
12	Resume	General Guidelines	CO2	
13	Resume Writing	Writing Exercise	CO2	
14	Resume Writing	Discussion on the samples	CO2	
15	Covering Letter	General Introduction and Writing Exercise	CO2	
16	Covering Letter	Discussion on the samples	CO2	

17	Emails	General Instructions and Writing Exercise	CO2	
18	Emails	Discussion on the Samples	CO2	
19	Interview Skills	Discussion on the general principles	CO2	
20	Group Discussion	Practical sessions and Evaluation	CO2	
21	Accuracy in Academic writing	Lecture	CO3	
22	Articles and Determiners	Lecture and discussion	CO3	
23	Nouns and Pronouns	Lecture	CO3	
24	Subject-verb agreement	Lecture and discussion	CO3	
25	Phrasal verbs	Lecture	CO3	
26	Modals	Lecture	CO3	
27	Tenses	Lecture and demonstration	CO3	
28	Conditional clauses	General Instructions and Writing Exercise	CO3	
29	Relative Pronouns	Lecture and demonstration	CO3	
30	Passive Voices	Lecture and illustration	CO3	
31	Conjunctions	Lecture	CO3	
32	Embedded questions	Demonstration	CO3	
33	Punctuations and Abbreviations	General Instructions and Writing Exercise	CO3	
34	Soft skills for academic presentations	Presentation and lecture	CO4	
35	Effective communication skills	Lecture	CO4	
36	How to structure presentation	Lecture and Demonstration	CO4	
37	Flip Charts, OHP, Power point presentation	Demonstration	CO4	
38	Clarity and brevity in presentation	Lecture	CO4	
39	Interaction and persuasion	Lecture	CO4	
40	Interview skills	Face to face interaction, demonstration	CO4	

41	Group Discussion	Demonstration and Lecture	CO4	
42	Group Discussion	Demonstration and Lecture	CO4	
43	Revision	Discussion and revising the topics	CO4	

#### **ASSIGNMENT**

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)	Couse Outcome
1		Draft a Resume for applying for the career you wish to choose	CO 2

#### **REFERENCE**

- Marilyn Anderson, Pramod K Nayar and Madhucchandra Sen. Critical Thinking, Academic Writing and Presentation Skills. Pearson Education and Mahatma Gandhi University

**COURSE PLAN – ADDITIONAL LANGUAGE - HINDI**

<b>PROGRAMME</b>	<b>ADDITIONAL LANGUAGE – HINDI</b>	<b>SEMESTER</b>	<b>2</b>
<b>COURSE CODE AND TITLE</b>	<b>U2CCHIN2A- TRANSLATION, COMMUNUCATION SKILLS AND APPLIED GRAMMAR</b>	<b>CREDIT</b>	<b>4</b>
<b>HOURS/WEEK</b>	<b>4</b>	<b>HOURS/SEM</b>	<b>72</b>
<b>FACULTY NAME</b>	<b>DR.MINIPRIYA R (ASST.PROFESSOR) SYAMLAL M S (ASST.PROFESSOR)</b>		

**COURSE OBJECTIVES**

- 1.To learn Hindi for effective communication in different fields like administration,media and business.
- 2.Understanding translation as a linguistic,cultural,economic and professional activity.
- 3.Familiarizing the practical grammar and analyzing the problems and challenges of effective communication in Hindi.

**COURSE OUTCOMES:**

	<b>COURSE OUTCOMES</b>	<b>PO/ PSO</b>	<b>CL</b>
CO 1	Understand Hindi language and communication.		U
CO 2	Understand the importance of correspondence in the fields of administration, media and business.		U, A An
CO 3	Understand translation as a linguistic, communicative and cultural activity.		U , A
CO 4	Understand the relevant Socio – Cultural issues and develop writing skills through conversation.		U, A
CO 5	Understand grammar and analyse the problems and challenges of communication in Hindi.		U, A

CL\* Cognitive Level



SESSIONS	DATE	TOPIC	LEARNING RESOURCES	COURSE OUTCOMES
MODULE I				
1		Introductory Session-	Oral/descriptive	CO 1
2		Exercise oriented Grammar	Description/exercise	CO 5
3		Parts of speech	Description/exercise	CO 5
4		Noun	Description/exercise	CO 5
5		Pronoun	Description/exercise	CO 5
6		Adjectives	Description/exercise	CO 5
7		Verb	Description/exercise	CO 5
8			Reading/writing	CO 3
9			Reading /writing	CO 3
10			Reference/Library	CO 2
11			Discussion	CO 5
12		Samvad,Shabd Sangrah	Communication	CO 1
13		Sakshatkar	Communication	CO 1
14			Communication	CO 1
15			Exercise	CO 2
16			Exercise	CO 4
17			Exercise	CO 4
18			Reference/Library	CO 2
19			Presentation	CO 4,CO 2
20			Discussion	CO 3
21		CIA – I	1 Hr; Descriptive answers only	

MODULE II				
22		Conjunctions	Description/exercise	CO 5
23		Case endings	Description/exercise	CO 5
24		Auxiliary verbs	Description/exercise	CO 5
25		Tenses	Description/exercise	CO 5
26			Description/exercise	CO 5
27			Reading/writing	CO 4
28			Reading/writing	CO 4
29			Reference/Library	CO 5
30			Discussion	CO 5
31		Samvad,Shabd Sangrah	Communication	CO 1
32		Sakshatkar	Communication	CO 3
33			Communication	CO 1
34			Communication	CO 1
35			Communication	CO 3
36			Exercise	CO 4
37			Exercise	CO 4
38			Exercise	CO 4
39			Exercise	CO 4
40			Exercise	CO 1
41		Translation Introduction	Oral/descriptive	CO 3
42		Theory	Oral/descriptive	CO 3
MODULE III				
43		Practice English to Hindi	Exercise	CO 3, CO 4

44			Exercise	CO 3, CO 4
45			Exercise	CO 3
46			Exercise	CO 4
47			Exercise	CO 3,CO 4
48		Practice Hindi to English	Exercise	CO 3
49			Exercise	CO 3
50			Exercise	CO 4
51			Exercise	CO 3,CO 4
52			Exercise	CO 3,CO 4
53		SEMINAR	Paper presentation	CO 1
54		SEMINAR	Paper presentation	CO 2
55		SEMINAR	Paper presentation	CO 3
56		SEMINAR	Paper presentation	CO 4
57		SEMINAR	Paper presentation	CO 5
58		SEMINAR	Paper presentation	CO 3
59		REVISION		
60		REVISION		
61		REVISION		
62		CIA II	2 HOURS	
63			Group Discussion	CO 1
64			Group Discussion	CO 3
65			Group Discussion	CO 2
66			Debates	CO 1
67		Discussion on the CIA		

68		REVISION		
69		REVISION		
70		REVISION		
71		REVISION		
72		Evaluation of the Course		

### ASSIGNMENTS

	<b>Date of submission/completion</b>	<b>Topic of Assignment &amp; Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)</b>	<b>Marks</b>	<b>Corse Outcomes</b>
1	Assignment (December)	Sakshatkar based on the text book and reference – Writing-Individual	5	CO 1
2	Seminar(January-February)	Paper Presentation based on the text book and reference – Oral-Individual	5	CO 5

### REFERENCES

- Samvad Tatha Sanrachna –Co-publication of M.G.University.
- Bhasha Vigyan Evam Hindi Bhasha,Dr.Pandit Banne,Jawahar Pustakalaya,Uttarpradesh.
- Bhasha Vigyan Evam Hindi Bhasha,Dr.Lakshmikanth Pandey,Jawahar Pustakalaya,Uttarpradesh.

**COURSE PLAN – ADDITIONAL LANGUAGE – MALAYALAM**

<b>PROGRAMME</b>	<b>B.SC.</b>	<b>SEMESTER</b>	<b>2</b>
<b>COURSE CODE AND TITLE</b>	<b>കവിത</b>	<b>CREDIT</b>	<b>2</b>
<b>HOURS/WEEK</b>	<b>4</b>	<b>HOURS/SEM</b>	<b>72</b>
<b>FACULTY NAME</b>	<b>ഫാ.സേവ്യർ സി.എസ് , വിഷ്ണു രാജ് പി</b>		

**COURSE OBJECTIVES**

1. കവിതാ സാഹിത്യത്തെക്കുറിച്ച് മനസിലാക്കുക.
2. കവിതഗ്രഹിക്കുവാനും നിരൂപണം ചെയ്യാനും , ഉള്ളകഴിവ് നേടുക
3. മലയാളത്തിലെ സമകാലിക കവിതയെക്കുറിച്ച് കൂടുതൽ മനസിലാക്കുക.

**COURSE OUTCOMES**

1. സാമാന്യമായ സാഹിത്യപരിചയവും വായനാഭിരുചിയും കാഴ്ചപ്പാടുകളും സൃഷ്ടിക്കുക
2. വ്യാവഹാരികതലത്തിൽ മാതൃഭാഷ ഉപയോഗിക്കുന്നതിനുള്ള കഴിവ് വളർത്തിയെടുക്കുക .
3. വിവിധ ഘട്ടങ്ങളിലായി രചിക്കപ്പെട്ടിട്ടുള്ള നല്ല കവിത പരിചയപ്പെടുക.
4. ഭാഷാപ്രയോഗവും , ആശയവിനിമയവും മാതൃഭാഷയിൽ സുഗമമായി ചെയ്യാൻ കഴിയുക .

Ses sio ns		Topic	Method	Remarks/R eference
1		Introductory Session	Lecturing	1,2,3
2		കാവ്യസാഹിത്യത്തെ പ രിചയപ്പെടുത്തുന്നു	Lecturing	2,3
3		മലയാളകവിതയെക്കുറി ച്ചുള്ള കുട്ടികളുടെ അറി വുകൾ പരിശോധിക്കു ന്നു	Group Discussion	1,2,3
4		ചിന്താഗതി എന്ന കവിത വായിക്കാൻ ആവശ്യപ്പെ ടുന്നു.	Independent Reading/Lecturing	1,2,4
5		കവിതാവിശകലനം	Lecturing	2,3
6		കവിതാവിശകലനം	Lecturing	1,2,3
7		ചിന്താഗതി എന്ന കവിത- ഗ്രൂപ്പ് തിരിച്ച് ചർച്ച നടത്തുന്നു. { സ്ത്രീപക്ഷസമീപനത്തി ൽ}	writing/Lecturing/G roup Discussion	2,3
8		സൂര്യകാന്തി എന്ന കവി ത വായിച്ച് ഗ്രൂപ്പ് തിരിച്ച് ആശയം അവത രിപ്പിക്കുന്നു.	Group Discussion/point presentation/evalu ation	1,2,3
9		കവിതാവിശകലനം	Reading/Lecturing	1,2,4
10		കവിതാവിശകലനം	Reading/Lecturing	
11		മനസ്സിനി എന്ന കവിത യുടെ ആമുഖം പറയുന്നു	Lecturing	1,2,3
12		ആസ്വാദനകുറിപ്പ് തയാ റാക്കുന്നു	writing/discussion/ Lecturing	2,3

13		കവിതാവിശകലനം	Reading/Lecturing	1,2,4
14		കവിതാവിശകലനം	Reading/Lecturing	2,3
15		മോഹൻദാസ്യാന്ധിയും നാമുറാംഗോഡ്സെയും- കവിതാരവതരിപ്പിക്കു ന്നു	Lecturing	2,3
16		കവിതാവായന, കവിതാവിശകലനം	Reading	1,2,3
17		വിജയലക്ഷ്മിയുടെ കവിതകൾ പരിചയപ്പെടുത്തുന്നു	Reading/Lecturing	2,3
18		കൗസല്യ എന്നാ കവിത വിശകലനം ചെയ്യുന്നു	Reading/Lecturing	2,3
19		യുഗളപ്രസാദൻഎന്ന കവിതയുടെആമുഖം രവതരിപ്പിക്കുന്നു	Lecturing	1,2,3
20		കവിതാവായന	Reading	1,2,3
21		കവിതാവിശകലനം	Reading/Lecturing	1,2,4
22		കവിതാവിശകലനം	Reading/Lecturing	1,2,4
23		പഠിച്ചകവിതകളുടെ പൊതുവിശകലനം	Class Discussion	1,2,3
24		CIA -I	1hr; descriptive answers only	2,3
25		SEMINAR PRESENTATION POEMS	Presentation/discus sion	2,3
26		SEMINAR PRESENTATION POEMS	Presentation/discus sion	1,2,3
27		Discussion on the CIA I	Class Discussion	
28		സാംസ്കാരികതലങ്ങളിൽ	Discussion	1,2,3

		കവിതകളെക്കുറിച്ചു വിശദീകരിക്കാനും വിഷയം ചർച്ച ചെയ്യുന്നു		
29		സാമൂഹിക,രാഷ്ട്രീയ, സാംസ്കാരികതലങ്ങളിൽ കവിതകളെക്കുറിച്ചു വിശദീകരിക്കാനും വിഷയം ചർച്ച ചെയ്യുന്നു	Debate/discussion	2,3
30		കുരീപ്പുഴ ശ്രീകുമാറിന്റെ കവിതകളെപ്പറ്റി പറയുന്നു	Class Discussion	2,3
31		തേൾ കുടം എന്ന കവിത പഠിപ്പിക്കുന്നു	Lecturing	1,2,3
32		ഗോപികാദണ്ഡകം - കവിതപാരായണം ചർച്ച	Lecturing/Class Discussion	1,2,4
33		കവിതാവിശകലനം	Reading/Lecturing	1,2,4
34		സമൂഹം,സ്ത്രീ,പ്രകൃതി എന്ന വിഷയം പഠിക്കാനുള്ള കവിതകളെ മുൻനിർത്തി കുട്ടികൾ ചർച്ച നടത്തുന്നു	Reading/Lecturing	1,2,3
35		ഉത്തരാധുനിക കവിതകളുടെ സവിശേഷതകൾ പറയുന്നു	Lecturing	2,3
36		പുതിയ മലയാള കവിതകൾ ക്ലാസ്സിൽ അവതരിപ്പിക്കുകയും, അതിനെക്കുറിച്ചു സംവാദങ്ങൾ	Class Discussion	1,2,3



		നടത്തുകയും ചെയ്യുന്നു		
37		മാമ്പഴപ്പാത എന്ന കവിത പരിചയപ്പെടുത്തുന്നു.	Lecturing/Class Discussion	1,2,4
38		മോഹനകൃഷ്ണൻ കാലടി എന്ന കവിയെ പരിചയപ്പെടുത്തുന്നു	Lecturing	2,3
39		നഗരവും ഗ്രാമവും തമ്മിലുള്ള വ്യത്യാസങ്ങളെക്കുറിച്ച് ചർച്ച ചെയ്യുന്നു	Class Discussion	2,3
40		സച്ചിദാനന്ദൻ എന്ന കവിയുടെ മലയാള സാഹിത്യത്തിലെ പ്രാധാന്യത്തെക്കുറിച്ച് പറയുന്നു.	Lecturing Discussion/	1,2,3
41		മനുഷ്യനും പ്രകൃതിയും എന്ന വിഷയം നാടകമായി അവതരിപ്പിക്കാൻ പറയുന്നു	Drama Performance	2,3
42		ആത്മഹത്യ ചെയ്ത കർഷകൻ വെള്ളത്തെക്കുറിച്ചു സംസാരിക്കുന്നു- എന്ന കവിതയുടെ വിശകലനം	Lecturing	1,2,3
43		കടമ്മനിട്ട രാമകൃഷ്ണൻ എന്ന കവിയുടെ മലയാള സാഹിത്യത്തിലെ പ്രാധാന്യത്തെക്കുറിച്ച് പറയുന്നു.	Lecturing Discussion	1,2,3
44		കുറത്തി കവിതയുടെ	Lecturing	1,2,3

		വിശകലനം		
45		കുറത്തി കവിതയുടെ വിശകലനം	Lecturing	1,2,4
46		എസ് .ജോസഫിന്റെ കീരി പലശൃംഗങ്ങളായി തിരിഞ്ഞു വായിച്ച് ആശയം അവതരിപ്പിക്കുന്നു	Discussion/	1,2,3
47		കവിതാവിശകലനം	Lecturing	1,2,4
48		കെ.ജി.ശങ്കരപ്പിള്ളയുടെ നാരാണത്ത് പാറ എന്ന കവിത ചൊല്ലുന്നു	Reading	1,2,4
49		കവിതാവിശകലനം	Lecturing	1,2,3
50		ഒറ്റപ്പെടലിന്റെ അനുഭവങ്ങൾ ചർച്ച ചെയ്യുന്നു  റോസ്മേരിയുടെ യശോധരയെന്നവൾ പഠിപ്പിക്കുന്നു	Lecturing	1,2,4
51		കവിതാവിശകലനം	Lecturing	2,3
52		വീരാൻകുട്ടിയുടെ പറക്കം എന്ന കവിത പഠിപ്പിക്കുന്നു	Lecturing Discussion/	1,2,3
53		പറക്കം എന്ന കവിത വിശകലനം ചെയ്യുന്നു	Lecturing	2,3
54		പവിത്രൻ തീക്കുന്നിയുടെ ഇനി എന്ന കവിത പഠിപ്പിക്കുന്നു	Lecturing	2,3
55		ഇനി എന്ന കവിത കവിതാവിശകലനം	Lecturing	2,3

56		നാടൻപാട്ടിനെക്കുറിച്ചു ചർച്ച	Discussion	2,3
57		മറിയമ്മ ചേട്ടത്തിയുടെ പാട്ട് പഠിപ്പിക്കുന്നു	Lecturing Discussion	2,3
58		നാടൻപാട്ടിനെക്കുറിച്ചു ചർച്ച	Discussion	2,3
59		ജലസേചനംകവിതസാ മാന്യമായിപരിചയപ്പെടുത്തുന്നു	Lecturing	2,3
60		ജലസേചനം-കവിതാവിശകലനം	Reading/Lecturing	2,3
61		ജലസേചനം-കവിതാവിശകലനം	Reading/Lecturing	2,3
62		ജലസേചനം-കവിതാവിശകലനം	Reading/Lecturing	2,3
63		.കവിതാവിശകലനം		2,3
64		കവിതസമൂഹവുമായി എങ്ങനെഇടപെടുന്നു എന്നവിഷയംചർച്ചചെയ്യുന്നു	Debate/discussion	1,2,4
65		കാല്പനിക,ആധുനിക,ഉത്തരാധുനികമലയാളകവിത - പൊതുചർച്ച,സംവാദം	Discussion/Debate	1,2,4
66		CIA II{common}	2hr	
67		CIA II{common}	2hr	
68		CIA II{common}	2hr	

69		CIA II{common}	2hr	
70		CIA II{common}	2hr	
71		CIA II{common}	2hr	
72		SEMINAR PRESENTATION ON POEMS	Presentation/discussion	1,2,4
73		SEMINAR PRESENTATION ON POEMS	Presentation/discussion	1,2,4
74		Discussion on the CIA II	Class Discussion	1,2,4
75		REVISION		1,2,4

### ASSIGNMENTS

	Date of submission/completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)	Weightage	Cos
1		പഠിക്കാനുള്ള കവിതകളുടെ സിലബസിൽ ഉൾപ്പെടാത്ത കവിതകൾ കണ്ടെത്തി വിശകലനം ചെയ്യുക	5	1,2,3,4
2		സമകാലീക കവിതകളുടെ രചനാസവിഷേതകൾ എഴുതുക	5	1,2,3,4

## REFERENCES

- 01.കാവ്യാകാശം-എം .ജി . യൂണിവേഴ്സിറ്റിപ്രസിദ്ധീകരണം
- 02.കവിതാസാഹിത്യചരിത്രം -ഡോ .എം .ലീലാവതി
- 03.മലയാളകവിതാപഠനങ്ങൾ-സച്ചിദാനന്ദൻ

**COURSE PLAN – ADDITIONAL LANGUAGE – SANSKRIT**

<b>PROGRAMME</b>	<b>B.SC.</b>	<b>SEMESTER</b>	<b>2</b>
<b>COURSE CODE AND TITLE</b>	<b>COMMUNICATION SKILLS IN SANSKRIT LANGUAGE</b>	<b>CREDIT</b>	<b>2</b>
<b>HOURS/WEEK</b>	<b>4</b>	<b>HOURS/SEM</b>	<b>75</b>
<b>FACULTY NAME</b>			

**COURSE OBJECTIVES**

1. To introduce the students various number, cases and gender forms in Sanskrit
2. To create an awareness about Verbal forms
3. To develop the communication skills and writing skills in Sanskrit language

**COURSE OUTCOMES**

CO1: The course is intended to develop the basic knowledge in Sanskrit
CO2: Students get awareness about Indian classical poetic tradition.
CO3: Students familiarize the figures of speech and their usage
CO4: Students develop the communication skills in Sanskrit
CO5: Understand moral values through Drama
CO6: Students develop writing skills in Sanskrit

<b>Sessions</b>	<b>Topic</b>	<b>Method</b>	<b>Course Outcome</b>	<b>Remarks/Reference</b>
1	Introductory Session	Lecturing	CO1	
2	Explaining Vibhakthi	Lecturing	CO1	
3	Explaining Nouns	Lecturing	CO1	
4	Prathama	Lecturing	CO1	
5	Dvitheeya	Lecturing	CO1	
6	Thrutheeya	Lecturing	CO1	
7	Chaturthi	Lecturing	CO1	
8	Panchami	Lecturing	CO1	

9	Shashti	writing/Lecturing	CO6	
10	sapthami	Writing/ Lecturing	CO6	
11	Sambodhana Prathama	Class Discussion	CO2	
12	Forms of Rama Shabdha	Class Discussion	CO2	
13	Forms of Hari Shabdha	1hr; descriptive answers only	CO2	
14	Forms of Guru Shabdha	Lecturing	CO2	
15	Forms of Vana Shabdha	Class Discussion/ Lecturing, writing	CO2	
16	Forms of latha Shabdha	Discussion, Lecturing, writing	CO2	
17	Verbs	Lecturing	CO2	
18	Prathamapurusha	Lecturing	CO2	
19	Madhyamapurusha	Lecturing	CO2	
20	Uthamapurusha	Lecturing / writing	CO2	
21	Present Tense	Lecturing	CO3	
22	Present Tense	Lecturing/ writing	CO3	
23	Future Tense	Independent Reading/ Discussion/ Lecturing	CO3	
24	Future Tense	Reading/	CO3	
25	Past Tense	Class Discussion	CO3	
26	Past tense	Lecturing	CO3	
27	Structure of Sentence	Lecturing	CO3	

28	Structure of sentence	writing//Group Discussion	CO3	
29	Sentence Construction	Lecturing/ Discussion	CO3	
30	Sentence Construction		CO3	
31	Sentence construction	Lecturing/Discussion	CO4	
32	Content of Swapnavasavadatha	Lecturing	CO4	
33	Content of Swapnavasavadatha	Lecturing	CO4	
33	Content of Swapnavasavadatha	Lecturing	CO5	
34	Content of Swapnavasavadatha	Lecturing	CO5	
35	Content of Swapnavasavadatha	Lecturing/ Group Discussion	CO5	
36	Content of Swapnavasavadatha	Lecturing	CO5	
37	Content of Swapnavasavadatha	Independent Reading/ Discussion/Lecturing	CO5	
38	Content of Swapnavasavadatha	Lecturing/ Reading/ Discussion	CO5	
39	Content of Swapnavasavadatha	Lecturing/ Reading	CO5	
40	Content of Swapnavasavadatha	Lecturing /Reading	CO5	



41	CIA I	Writing	CO4	
42	Vasavadatha	Lecturing/ Reading	CO5	
43	King Udayana	Discussion	CO5	
44	King's Dream	Lecturing	CO5	
45	Marriage	Lecturing / Discussion	CO5	
46	Information about Vasavadatha	Independent Reading/ Discussion	CO5	
47	Literary aspects Swapnava	Lecturing/ Reading	CO5	
48	Literary aspects of Swapnavasavadatha	Lecturing/ Reading	CO5	
49	Social aspects of swapnavasavadatha	writing	CO5	
50	Moral values from swapnavasavadatha	Discussion	CO5	
51	Introduction of Pambavarnana	Lecturing	CO5	
52	Valmiki ramayana	Lecturing	CO5	
53	Content of pamba varnana	Lecturing	CO6	
54	Content of pamba varnana	Lecturing	CO6	
55	Content of pamba varnana	Lecturing	CO6	
56	Content of pamba varnana	Lecturing	CO6	
57	Content of pamba	Lecturing	CO6	

	varnana			
58	Content of pamba varnana	Group Discussion	CO6	
59	Content of pamba varnana	Independent Reading/ Discussion	CO6	
60	Explaining mountain's beauty	Lecturing	CO6	
61	Environmental aspects of pampa varnana	Lecturing/ Discussion	CO6	
62	Environmental aspects of pampa varnana	Lecturing	CO6	
63	Social aspect of Pampavarnana	Lecturing	CO6	
64	Literary aspects of Pampavarnana	Lecturing/ Discussion	CO6	
65	Literary aspects of pampa varnana	Lecturing	CO6	
66	REVISION	Lecturing	CO6	
67	REVISION	Questioning	CO6	
68	SEMINAR PRESENTATIONS 1	Lecturing/ writing	CO6	
69	SEMINAR PRESENTATIONS 2		CO6	
70	CIA II	2hr	CO6	
71	Discussion on the CIA II	Class Discussion	CO6	
72	REVISION	Lecturing	CO6	
73	REVISION	questioning	CO6	

74	Evaluation of the Course		CO6	
75	Question Paper Discussion	Class Discussion	CO6	

### ASSIGNMENTS

	Date of submission/completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)	Weighttage
1		The Usage of vibhakthi in Sanskrit language	
2		Environmental aspects in Ramayana	

### REFERENCES

- 1.Siddharupam, Vidyarambham Press, Alappuzha
- 2.Sabdamanjari, Chowkhamba Sanskrit Series office, Varanasi
- 3.Dhaturupamanjari, Chowkhamba Sanskrit Series office, Varanasi
- 4.Swapnavasavadatha of Bhasa
- 5.Samskrtasahiti, MG University

## COURSE PLAN

<b>PROGRAMME</b>	<b>B.SC.</b>	<b>SEMESTER</b>	<b>2</b>
<b>COURSE CODE AND TITLE</b>	<b>19U1CCFRN1A - FRENCH LANGUAGE AND COMMUNICATION SKILLS II</b>	<b>CREDIT</b>	<b>4</b>
<b>HOURS/WEEK</b>	<b>4</b>	<b>HOURS/SEM</b>	<b>72</b>
<b>FACULTY NAME</b>	<b>Dr.SHOBA LIZA JOHN</b>		

<b>COURSE OUTCOMES (COs)</b>	
1	Understand the basic concepts of French language including grammar, vocabulary and sentence structure.
2	Understand the basic communication skills necessary for living in France and French speaking countries.
3	Describe oneself and ones surroundings using a repertory of words and expressions in a simple and structured grammatical manner.
4	Develop business communication skills
5	Express an issue of concern including topics like environmental, social or health issues, enumerate its causes and consequences and suggest solutions
6	Understand the mannerisms, culture and tradition of France and Francophone countries and compare it to one's own country and develop co-cultural feeling
7	Understand and appreciate the history of France and Francophone countries and compare it to one's own country
8	Understand the special features of France including gastronomy, social institutions, policis, the present French scenario and compare it to one's own country

<b>Sessi on</b>	<b>Topic</b>	<b>Method of Teaching</b>	<b>Value Addition s</b>	<b>CO</b>	<b>PO/ PSO</b>	<b>Cogni tive Leve( CL)</b>	<b>Knowle dge Categor y (KC)</b>
<b>MODULE I</b>							
01- Jan	Introductory Session	role play, games. A pplying to	french basic comctn	1,2,3		U	C
2	#NAME?	chalk n talk	Introduci ng oneself	1,2,3		U	F
3	Pronominal verbs	games,music		1,2,3		U	F
4	Me too- me neither	role play		1,2,3		U	C
5	Developing communicative skills	chalk n talk		1,2,3		U	C
6	Narrating one's day	Discussion, ICT		6,7,8		An	C

MODULE II							
7	Adjective interrogative	game		2,3		A	C
8	civilisation	chalk n talk, game		2,3		U	C
9	civilisation	role play, listening		2,3		U	C
10	Vocabulary building exercices	chalk n talk		2,3		U	C
11	BUYING A PRODUCT	roleplay		5,6,7,8		U	C
12	PRODUCTS FROM GENERATION TO GENERATION	Discussion, ICT		5,6,7,8		An	C
MODULE III							
17	Food vocabulary	oral, description		2,3,		U	C
18	Articles partitifs	games,music		2,3		U	C
19	Future proche	role play		2,3		U	C
20	Giving an order and taking order at a restaurant	chalk n talk/roleplay		2,3		Ap	C
21	civilisation	role play/presentation		2,3		u	M,C
22	civilisation	Discussion		5,6,7,8		U	C
MODULE IV							
23	past tense	chalk n talk/Role plays		2,3		U	C
24	Describing a past event	chalk n talk		1,2,3		Ap	C
25	Part time jobs vocabulary,ads	speaking/role play		1,2,3		U	C
26	Civilization	discussion/compre hension		5,6,7,8		An	C
27	civilisation	discussion		5,6,7,8		An	C

REFERENCES	
1	Francais.com
2	LE POINT DU FLE
3	TV5 MONDE.ORG