SACRED HEART COLLEGE (AUTONOMOUS)

Department of Physics

BACHELOR OF PHYSICS

Course plan

Academic Year 2016-17

Semester 4

SACRED HEART COLLEGE (AUTONOMOUS)

Department of English

COURSE PLAN

PROGRAMME	BSC Physics	SEMESTER	4
COURSE CODE AND TITLE	15U4CCENG6: Evolution of the Philosophy of Science	CREDIT	4
HOURS/WEEK	5	HOURS/SEM	90
FACULTY NAME	RAJESH JAMES		

COURSE OBJECTIVES

COURSE OBJECTIVES
Appreciate the role of science in all walks of life and the treatment of its themes in various literary formats
Critically engage with literary texts written in different languages and later translated into English.
Promote a new way of thinking which will encompass both science and literature
Facilitate communication between both science and literature
Apply the unfathomable power of literature and science in their writings and creative endeavors.

COURSE PLAN

SESSION	TOPIC	Learning Resources	Value Additions	Remarks
What is Science- George Orwell				
1	What is Science	Text	Lecture/interaction	
2	What is Science	Text	Discussion	
3	What is Science	Text	Reflections	
4	What is Science	Text	Discussion	
5	What is Science	Text	Quiz	
The Origin of Science-Will Durant				
6	The Origin of Science	Text	Lecture/interaction	
7	The Origin of Science	Text	Discussion	
8	The Origin of Science	Text	Reflections	
9	The Origin of Science	Text	Discussion	
10	The Origin of Science	Text	Discussion	
11	The Origin of Science	Text	Quiz	
The Scientific Outlook-C V Raman				
12	The Scientific Outlook	Text	Lecture/interaction	
13	The Scientific Outlook	Text	Discussion	
14	The Scientific Outlook	Text	Reflections	
15	The Scientific Outlook	Text	Reflections	
16	The Scientific Outlook	Text	Discussion	
17	The Scientific Outlook	Text	Discussion	
18	The Scientific Outlook	Text	Quiz	
Our Picture of the Universe – Stephen Hawking				
19	Our Picture of the Universe	Text	Lecture/interaction	

20	Our Picture of the Universe	Text	Discussion	
21	Our Picture of the Universe	Text	Reflections	
22	Our Picture of the Universe	Text	Reflections	
23	Our Picture of the Universe	Text	Discussion	
24	Our Picture of the Universe		Discussion	
Our Ancestors – Carl Sagan				
25	Our Ancestors	Text	Lecture/interaction	
26	Our Ancestors	Text	Discussion	
27	Our Ancestors	Text	Reflections	
28	Our Ancestors	Text	Reflections	
29	Our Ancestors	Text	Discussion	
30	Our Ancestors		Quiz	
Literature and Science-Aldous Huxley				
30	Literature and Science	Text	Lecture/interaction	
31	Literature and Science	Text	Discussion	
32	Literature and Science	Text	Reflections	
33	Literature and Science	Text	Reflections	
34	Literature and Science	Text	Discussion	
35	Literature and Science	Text	Discussion	
36	Literature and Science	Text	Quiz	
Literature and Ecology- William Rueckert				
37	Literature and Ecology	Text	Lecture / interaction	
38	Literature and Ecology	Text	Lecture	
39	Literature and Ecology	Text	Interaction	
40	Literature and Ecology	Text	Lecture	

41	Literature and Ecology	Text	Discussion	
42	Literature and Ecology	Text	Interaction	
43	Literature and Ecology	Text	Discussion	
44	Literature and Ecology	Text	Discussion	
45	Literature and Ecology	Text	Quiz	
Science and Society – Albert Einstein				
46	Science and Society	Text	Lecture / interaction	
47	Science and Society	Text	Lecture	
48	Science and Society	Text	Interaction	
49	Science and Society	Text	Lecture	
50	Science and Society	Text	Discussion	
51	Science and Society	Text	Interaction	
52	Science and Society	Text	Discussion	
53	Science and Society	Text	Lecture / interaction	
54	Science and Society	Text	Quiz	
A Little Bit of What You Fancy – Desmond Morris				
55	A Little Bit of What You Fancy	Text	Lecture	
56	A Little Bit of What You Fancy	Text	Analysis	
57	A Little Bit of What You Fancy	Text	Reflections	
58	A Little Bit of What You Fancy	Text	Discussions	
Unit 2: Moxon's Master – Ambrose Bierce				
59	Moxon's Master	Text	Lecture	
60	Moxon's Master	Text	Analysis	
61	Moxon's Master	Text	Reflections	
62	Moxon's Master	Text	Discussions	

63	Moxon's Master	Text	Interaction	
The Stolen Bacillus – H.G.Wells				
64	The Stolen Bacillus	Text	Lecture	
65	The Stolen Bacillus	Text	Analysis	
66	The Stolen Bacillus	Text	Reflections	
67	The Stolen Bacillus	Text	Discussions	
68	The Stolen Bacillus	Text	Quiz	
EPICAC – Kurt Vonnegut				
69	EPICAC	Text	Lecture	
70	EPICAC	Text	Analysis	
71	EPICAC	Text	Reflections	
72	EPICAC	Text	Discussions	
The Comet – JayantNarlikar				
73	The Comet	Text	Lecture	
74	The Comet	Text	PPT/Video	
75	The Comet	Text	Analysis	
76	The Comet	Text	Discussion	
The Last War – Neil Grant				
77	The Last War – Neil Grant	Text	Lecture	
78	The Last War – Neil Grant	Text	PPT/Video	
79	The Last War – Neil Grant	Text	Analysis	
80	The Last War – Neil Grant	Text	Discussion	
Cyberscripture Part 1 : Unplugged- G L Horton				
81	Cyberscripture Part 1 : Unplugged	Text	Lecture	
82	Cyberscripture Part 1 : Unplugged	Text	PPT/Video	

83	Cyberscripture Part 1 : Unplugged	Text	Analysis	
84	Cyberscripture Part 1 : Unplugged	Text	Discussion	
85	Cyberscripture Part 1 : Unplugged	Text	Lecture	
86	Cyberscripture Part 1 : Unplugged	Text	PPT/Video	
87	Cyberscripture Part 1 : Unplugged	Text	Analysis	
88	Cyberscripture Part 1 : Unplugged	Text	Discussion	
Revision				
89	Syllabus	Text	Quiz/ Interaction	-6
90	Syllabus	Text	Quiz / Interaction	-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	By February	Prepare a review of any book/Article that inspired you most	-6

References

Philosophy of Science

COURSE PLAN

PROGRAMME	BACHELOR OF SCIENCE - PHYSICS	SEMESTER	4
COURSE CODE AND TITLE	15U4CCHIN4A-CULTURE AND CIVILIZATION OF INDIA	CREDIT	4
HOURS/WEEK	5	HOURS/SEM	90
FACULTY NAME	Dr. MINIPRIYA R, SYAMLAL M.S		

COURSE OBJECTIVES
Identify the socio-cultural aspects of literary works in different periods.
Student will be able to recognise the social significance of a literary work in any language.
Identify the relation between society and literature and analyse the cultural changes.
Develop creative thinking capacity through Essays.
Connect the cultural trends to literary forms.

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	REMARKS
MODULE I				
1	Sanskruti Ki Kahani Introduction About The Author	Lecture/PPT		
2	Sanskruti Ki Kahani	Lecture		,,
3	Sanskruti Aur Apsanskruti Introduction about the Author	Lecture/PPT		
4	Sanskruti Aur Apsanskruti	Lecture/Discussion		,,
5	Sanskruti Ki Kahani	Lecture		,,
6	Sanskruti Ki Kahani	Lecture/PPT		,,
7	Sanskruti Aur Apsanskruti	Lecture/Discussion		,,
8	Sanskruti Aur Apsanskruti	Interaction		,,
9	Sanskruti Ki Kahani	Lecture		,,
10	Sanskruti Ki Kahani	Lecture/Discussion		,,
11	Sanskruti Aur Apsanskruti	Lecture		,,
12	Sanskruti Aur Apsanskruti	Interaction	Seminar	,,
13	Sanskruti Ki Kahani	Lecture		,,
14	Sanskruti Ki Kahani	Lecture		,,
15	Revision	Lecture/Discussion		
16	Sanskruti Aur Apsanskruti	Interaction	Seminar	,,
17	Sanskruti Aur Apsanskruti	Lecture/PPT		,,

18	Revision	Interaction	Seminar	
19	Bharateeya Sanskruti Introduction about the Author	Lecture/PPT		
20	Bharateeya Sanskruti	Lecture		, ,
21	Ham Sanskruti Mei Nahi Vikruti Mei Vikasit Ho Rehe Hain Introduction About The Author	Lecture/PPT		
22	Bharateeya Sanskruti	Lecture		, ,
23	Bharateeya Sanskruti	Lecture/Discussion		, ,
24	Ham Sanskruti Mei Nahi Vikruti Mei Vikasit Ho Rehe Hain	Lecture/PPT		,
25	Bharateeya Sanskruti	Lecture		, ,
26	Bharateeya Sanskruti	Lecture/Discussion	Seminar	, ,
27	Revision	Lecture		
28	Revision	Lecture/Discussion		
29	Revision	Interaction		
30	**CIA I (1 Hr Exam)**			
	MODULE II			
31	Bharateeya Sanskruti	Lecture		, ,
32	Ham Sanskruti Mei Nahi Vikruti Mei Vikasit Ho Rehe Hain	Lecture/Discussion		,
33	Ham Sanskruti Mei Nahi Vikruti Mei Vikasit Ho Rehe Hain	Lecture		,
34	Bharateeya Sanskruti	Lecture/Discussion		, ,
35	Bharateeya Sanskruti	Lecture/Discussion		, ,
36	Revision	Interaction		
37	Ham Sanskruti Mei Nahi Vikruti Mei Vikasit Ho Rehe Hain	Lecture		,
38	Revision	Lecture/Discussion		
39	Loktantra Ek Dharma Hai Introduction About The Author	Lecture/PPT		
40	Loktantra Ek Dharma Hai	Lecture		,
41	Loktantra Ek Dharma Hai	Lecture/Discussion		,
42	Atankwad Aur Hum Introduction About The Author	Lecture/Discussion		
43	Atankwad Aur Hum	Lecture/Discussion		,
44	Loktantra Ek Dharma Hai	Lecture		,
45	Loktantra Ek Dharma Hai	Lecture/Discussion	Seminar	,
46	Atankwad Aur Hum	Discussion		,
47	Atankwad Aur Hum	Lecture/Discussion		,
48	Atankwad Aur Hum	Lecture		,
49	Loktantra Ek Dharma Hai	Lecture		,
50	Loktantra Ek Dharma Hai	Lecture/Discussion		,
51	Revision	Discussion		
52	Atankwad Aur Hum	Lecture		,
53	Atankwad Aur Hum	Lecture/Discussion		,
54	Atankwad Aur Hum	Lecture/PPT		,

55	Mahanom Ka Manwantar Introduction About The Author	Lecture/Discussion		
56	Mahanom Ka Manwantar	Discussion		, ,
57	Atankwad Aur Hum	Lecture/PPT		,
58	Atankwad Aur Hum	Lecture		,
59	Revision	Lecture/Discussion	Seminar	
60	Mahanom Ka Manwantar	Lecture		, ,
61	Mahanom Ka Manwantar	Lecture/Discussion		, ,
62	**CIA II (2 Hrs Exam)**			
MODULE III				
63	Keral Itihas Ke Jharokhe Se Introduction About The Author	Lecture/PPT		
64	Keral Itihas Ke Jharokhe Se	Lecture		,
65	Keral Itihas Ke Jharokhe Se	Lecture/Discussion		,
66	Mahanom Ka Manwantar	Lecture		, ,
67	Mahanom Ka Manwantar	Lecture/Discussion		, ,
68	Keral Itihas Ke Jharokhe Se	Lecture		,
69	Mahanom Ka Manwantar	Lecture		, ,
70	Samajik Kranti Ka Agradoot Sree Narayan Guru Introduction About The Author	Lecture/PPT		, ,
71	Samajik Kranti Ka Agradoot Sree Narayan Guru	Lecture		, ,
72	Sabhyata Ka Rahasya Introduction About The Author	Lecture/PPT		
73	Sabhyata Ka Rahasya	Lecture		,
74	Sabhyata Ka Rahasya	Lecture/Discussion	Seminar	,
75	Samajik Kranti Ka Agradoot Sree Narayan Guru	Lecture		, ,
76	Samajik Kranti Ka Agradoot Sree Narayan Guru	Lecture		, ,
77	Sabhyata Ka Rahasya	Lecture/Discussion		,
78	Sabhyata Ka Rahasya	Lecture/Discussion		,
79	Samajik Kranti Ka Agradoot Sree Narayan Guru	Lecture/PPT		, ,
80	Samajik Kranti Ka Agradoot Sree Narayan Guru	Lecture/Discussion	Seminar	, ,
81	Dalit Andolan Aur Ayyankali Introduction about the Author	Lecture		
82	Dalit Andolan Aur Ayyankali	Lecture/Discussion		,
83	Dalit Andolan Aur Ayyankali	Lecture		,
84	Dalit Andolan Aur Ayyankali	Lecture/Discussion		,
85	Dalit Andolan Aur Ayyankali	Lecture		,
86	Dalit Andolan Aur Ayyankali	Lecture/Discussion	Seminar	,
87	Seminar			
88	Seminar			
89	Revision			

90	Evaluation of the course			

INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines (B.Sc. Physics)

SL NO	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	Assignment (February)	Review of a lesson based on the textbook and reference, Writing (Individual)
2	Seminar (February)	Presentation on a given topic based on the text book and reference – oral (Individual)

GROUP ASSIGNMENTS/ACTIVITES – Details & Guidelines

SL NO	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	January	Analyse an essay based on the text book. (Group Discussion).
2	January	Write a general essay based on cultural studies. (Group Activity).

References

- Adhunik Sahitya Ki Pravrithiyan,Dr.Namvar Singh,Lokbharati Prakashan, New Delhi .
- Sanskruti Ka Tana Bana, Dr.Abha Gupta Thakur, Vani Prakashan, New Delhi .

Web resource references:

- epustakalay.com
- www.hindikunj.com

COURSE PLAN

PROGRAMME	PHYSICS	SEMESTER	4
COURSE CODE AND TITLE	15U4CCFRN4A – AN ADVANCED COURSE IN FRENCH II	CREDIT	4
HOURS/WEEK	5	HOURS/SEM	90

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

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	REMARKS
MODULE I				
1	Revision of French Basics	Role play, games		
2	French Basics	Chalk n talk		
3	French Basics	Chalk and Talk		
4	French Basics	Chalk and Talk		
5	French Basics	Chalk and Talk		
6	French Basics	Chalk and Talk		
7	French Basics	Chalk and Talk		
8	French Basics	Chalk and Talk		
9	Describe a personality	Lecture		
10	Edith Piaf	lecture		
11	Interview a personality	Communication skills		
12	Interview with Edith Piaf	Oral		
13	famous people in your country	Oral		
14	Narrate the life of a person of your choice	Communication Skills		
15	Describe a locality	Communication Skills		
16.	Describe a locality in your country	Role play		

17.	Grammar – relative pronoun	Lecture, games		
18.	Sentence construction using relative pronoun	Games		
19.	Artistic movements	Debate/Discussion		
20	Reading Comprehension	Understanding Skills		
21.	Reading Comprehension	Understanding Skills		
22.	Reading Comprehension	Understanding Skills		
23.	Vocabulary building	Games		
24	Artistic movements	seminar		
25	Artistic movements	Expression oral		
26.	Female artists French culture	Discussion		
27	Female artists in India	Discussions		
28	Female artists in India	Discussions ICT		
29	French culture –	Discussions, comparison		
30	Class test of Unit 1			
	MODULE II			
31	Describe weather	Game		
32	Weather forecast	Role play		
33	Weather forecast in your country	Lecture		
34	Causes and consequences of an issue	Games, Role plays		
35	Describe ways of protecting environment	discussion		
36	Vocabulary Building	Games		
37	Global warming, green house effect	Lecture		
38	Sentence Construction	Games		
39	Grammar-futur tense	Roleplay, listening exercice		
40	Describe future food habits	Roleplay		
41	Describe future food habits	Lecture , role play		
42	Cities in transition	Debate		
43	Recycling	Games		
44	Intercultural aspect	Lecture/Discussion		
45	Revision			
46	Revision			
47	Revision			
48	Revision			
49	Revision			
50	Revision			
51	Revision			
	CIA-1			
52	Discussion of CIA			
53	Vocabulary Building	Games		
	MODULE III			
54	Organizing a party	PPT/Lecture		
55	Writing an invitation	PPT/Lecture		
56	Positive and negative reply to an invitation	PPT/Lecture		
57	Vocabulary- body parts	PPT		

58	Vocabulary-parts of the body, expressing pain	Music, GAMES		
59	Explain problem which you face	Lecture/Role play		
60	Mail on seeking advice, describing a problem	Role play		
61	Telephonic conversation	Role play		
62	Vocabulary Building	Games		
63	Posting on a problem which you face	Roleplay		
64	Giving advice/grammar-imperative	Chalk and talk, roleplay		
65	webdoctor	Communication skills		
66	Writing a mail and receiving response	Communication Skills		
67	French Culture -Vacation sports	PPT/Discussion		
68	Sports in India	Debate		
69	Advantages of doing sports	Debate/Discussion		
70	Famous authors- Moliere	Discussion		
71	Clown – life of a clown	Discussion		
CIA II				
MODULE IV				
72	French language in the world	Chalk and talk		
73	French language in the world	Role play		
74	Informtion on francophone countries	Role play		
75	Describea place, its past, its present and future	Discussion		
76	Vocabulary Building	Games, Music		
77	French movie	Audio visual		
78	French Movie	Audio Visual		
79	Francophone literature	Chalk n talk/Reading Comprehension		
80	Francophone literature	Discussion		
81	Francophone literature	Discussion		
82	Francophone literature	Discussion		
83	Francophone literature	Discussion		
84	Revision			
85	Revision			
86	Revision			
87	Revision			
88	Revision			
89	Revision	discussion		
90	Revision	discussion		

INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	BY February	Writing a resume of a francophone novel and its author
2		roleplays

References

Version Originale, site web

COURSE PLAN

PROGRAMME	BACHELOR OF SCIENCE,PHYSICS	SEMESTER	4
COURSE CODE AND TITLE	15U4CCSAN4A: HISORICAL SURVEY OF SANSKRIT LITERATURE AND KERALA CULTURE	CREDIT	4
HOURS/WEEK	5	HOURS/SEM	90
FACULTY NAME	Dr. Mathew Jose		

COURSE OBJECTIVES
Students familiarize the Culture and Civiliazation
Students understand the influence of Epic and in Indian Literature
Students get an awareness about Indian classical poetic tradition
Students familiarize the Mahakavyas and It's Influence
Students identify the values and philosophy in Sanskrit literature
Students get an awareness about Indian Philosophers and renovators in Kerala
Understand the tools to beautify the literature through Drama and Translation
Students identify the richness of Indian Literature

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	REMARKS
	MODULE I			
1	Introducing the importance of epic	Lecture		
2	Valmiki's Ramayana	Discussion		
3	Ramayana story	Lecture		
4	Development of Ramayana	Lecture		
5	Seven kandas	Lecture		
6	Arguments of Prof.Jacobi	Chalk n talk		
7	Addition of two kandas	Lecture		
8	The date of ramayana	Chalk n talk		
9	Balakanda, Ayodhyakanda	Lecture		
10	Aaranyakanda, kishkindakanda	Lecture		
11	Sundarakanda, Yudhakanda	Discussion		
12	Utharakanda	Discussion		
13	Influence of Ramayana in Indian literature	PPT/Lecture		
14	Mahabharatham-Introduction	PPT/ Lecture		
15	Eighteen Parvas	PPT/ Lecture		
16	The date of mahabharatham	PPT/Lecture		
17	First stage - jayam	Chalk n talk		
18	Second stage -Bharatham	Lecture		
19	Third Stage -mahabharatham	Lecture		
20	Authorship of Mahabharatham	Lecture		
21	The numbers of sloka –More than 1 lakh	Game		
22	The content of Bharatham	Game		
23	Moralities in Bharatham	PPT/Lecture		
24	Bhagavad Geetha	PPT/Lecture		
25	The influence of Bharatham in later Indian literature	Lecture		
26	Harivamsham	Lecture		
	CIA-1			
27	Purusharthas	Lecture		
28	The Fifth veda	Chalk n talk		
29	Commentary on Bharatham	Chalk n talk		
30	Revision			
	MODULE II			
31	Introduction -Panchamahakavyas	Lecture		
32	Kumarasambava	Lecture		
33	Content of Kumarasambava			
34	Raghuvamsha	Lecture		
35	Content of Raghuvamsha	Lecture		
36	Kiratharjuneeyam	Lecture		
37	Content of Kiratharjuneeyam	Lecture		
38	Shishupalavadham	PPT/Lecture		
39	Content of Shishupalavadham	PPT/Lecture		
40	Naishadhacharitham	PPT/Lecture		

41	Content of Naishadhacharitham	Lecture		
42	The importance of mahakakavya	Lecture		
43	The authors of mahakavya	Chalk n talk		
44	Revision			
MODULE III				
45	Swapnavasavadatham	Discussion		
46	Content	PPT/Lecture		
47	Prathijnayaugandharayanam	PPT/ Lecture		
48	Content	PPT/Lecture		
49	Malavikaagnimithram	PPT/Lecture		
50	Vikramorvasheeyam	PPT/ Lecture		
51	Abhijnanashakunthalam	PPT/Lecture	Video	
52	Content	PPT/Lecture		
53	Venisamharam	PPT/Lecture		
54	Mrichakatikam	Lecture		
55	Uthararamacharitham	Lecture		
56	Ashcharyachudamani	PPT/Lecture		
57	Subhadradhananjayam	PPT/Lecture		
58	The Influence of Dramas	PPT/Lecture		
59	Revision			
MODULE IV				
60	Shankaracharya	Lecture		
61	Keralavarma Valiya koyi Thampuran	Lecture		
62	Poorna Saraswathy	Chalk n talk		
63	Sree Narayana guru	Lecture		
64	Chattambi Swamikal	Lecture	Group discussion	
65	A.R.Rajarajavarma	Lecture		
66	P.C.Devasya	PPT/Lecture		
67	K.N.Ezhuthachan	PPT/Lecture		
68	Dr.P.K.Narayana Pillai	PPT/Lecture		
69	Melpathoor Narayana Bhattathiri	PPT/Lecture		
70	Sukumara Kavi	Lecture		
71	I.C Chacko	Lecture		
72	Revision			

INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	15/01/2017	Kerala Philosophers
2	21/01/2017	The philosophy of Bhagavad Gita

GROUP ASSIGNMENTS/ACTIVITES – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	04/02/2017	The Influence of Epics in Indian society
2	24/02/2017	Mahakavyas and Indian literature

References

1.A Short History of Sanskrit Literature, T.K. Ramachandra Iyer

2.Samskrita Sahitya Caritram, ed. K. Kunjunni Raja and M.S. Menon, Kerala Sahitya Academi, Trissur

3.Samskrita Bhasayum Sahityavum, T.P. Balakrishnan

4.History of Sanskrit Literature, A B Keith

5.Facets of Indian Culture, P C Muralimadhavan

COURSE PLAN-

PROGRAMME	**B.Sc PHYSICS**	SEMESTER	4
COURSE CODE & TITLE	15U4CCMAL4B ഗദ്യം രചന രചനാപരിചയം	CREDITS	4
HOURS/WEEK	5	HOURS/SEM	90

COURSE OBJECTIVES
ഭാഷ ,എഴുത്ത് , രചനാപരിശീലനം എന്നീ ശേഷികളെ മനസിലാക്കുക
ഉപന്യാസരചനാതത്വങ്ങൾ ,പാദവാക്യഘടന എന്നീ ശേഷികളെ മനസിലാക്കുക
സാഹിത്യനിരൂപണം ,രാഷ്ട്രീയദർശനം ,മാധ്യമ പഠനം എന്നിങ്ങനെ വിവിധങ്ങളായ ഗദ്യവ്യവഹാരങ്ങളുടെ മികച്ച മാതൃകകൾ പരിചയപ്പെടുത്തുക
വായനാഭിരുചി വർദ്ധിപ്പിക്കുക
Eവ്യാവഹാരിക തലത്തിൽ മാതൃഭാഷാപ്രയോഗിക്കുവാനുള്ള കഴിവ് നേടുക

Session	Topic	Teaching method	Learning Resources	Remarks
Module I				
1	ഭാഷാചരിത്രം -ആമുഖം	Lecturing	സാഹിത്യചരിത്രങ്ങൾ	
2	ഭാഷാചരിത്രം -ആമുഖം	Lecturing	സാഹിത്യചരിത്രങ്ങൾ	
3	ക്രിയാത്മക രചന	Discussion	Text	
4	ക്രിയാത്മക രചന	Reading	Text	
5	സർഗാത്മകരചന	Demonstrating	Text	
6	സർഗാത്മകരചന	Lecturing		
7	സർഗാത്മകരചന	Discussion	Text	
8	ഭാഷാപ്രയോഗങ്ങൾ	Demonstrating	Text	
9	ഭാഷാപ്രയോഗങ്ങൾ	Reading	Text	
10	ഭാഷാപ്രയോഗങ്ങൾ	Discussion	Text	
11	വാക്യരചന	Demonstrating	സാഹിത്യചരിത്രങ്ങൾ	
12	വാക്യരചന	Discussion	Text	
13	വാക്യരചന	Discussion	Text	
14	മാനകഭാഷ	Reading	സാഹിത്യചരിത്രങ്ങൾ	
15	മാനകഭാഷ	Demonstrating	Text	

16	ഭാഷാഭേദങ്ങൾ	Discussion	Text	
17	ഭാഷാഭേദങ്ങൾ	Discussion	Text	
18	വാക്കും യുക്തിയും	Demonstrating	Text	
19	വിമർശനാത്മക ചിന്ത	lecturing	Text	
20	വിമർശനാത്മക ചിന്ത	Discussion		
21	വിമർശനാത്മക ചിന്ത	Discussion	Text	
22	സന്ധികാര്യം	lecturing	Text	
23	സന്ധികാര്യം	Discussion	Text	
24	സന്ധികാര്യം	Discussion		
25	അർത്ഥപരിണാമം	lecturing	Text	
26	അർത്ഥപരിണാമം	Discussion	Text	
27	വിവർത്തനം	lecturing	Text	
28	വിവർത്തനം	Discussion		
29	ചിഹ്നം	Lecturing	Text	
30	ചിഹ്നം	Lecturing		
31	നവപാഠങ്ങൾ	Discussion	Text	
32	ഭാഷയുടെ ഘടന	Lecturing	Text	
33	സ്ഥല പേരുകളുടെ രൂപമാറ്റം	Reading	Text	
34	പത്രഭാഷ	Discussion		
35	യന്ത്ര ഏഴുത്ത്	Discussion	Text	
36	ഉപന്യാസരചന	Lecturing	Text	
		Module II		
37	മഹാകവിയുടെ ശിൽപ്പശാലയിൽ	Reading	Text	
38	മഹാകവിയുടെ ശിൽപ്പശാലയിൽ	Discussion		
39	മഹാകവിയുടെ ശിൽപ്പശാലയിൽ	Discussion	Text	
40	മതനവീകരണം മതനിരപേക്ഷത	Lecturing Discussion	Text	
41	മതനവീകരണം മതനിരപേക്ഷത	Reading	Text	
42	പെൺവഴി രചനയുടെ മെയ്യും ഉയിരും	Discussion		
43	ജനനാന്തരസൗഹൃദങ്ങൾ	Discussion	Text	
44	പെൺവഴി രചനയുടെ മെയ്യും ഉയിരും	Lecturing	Text	
45	ജനനാന്തരസൗഹൃദങ്ങൾ	Lecturing	Text	
46	ജനനാന്തരസൗഹൃദങ്ങൾ	Reading	Text	
47	ജനനാന്തരസൗഹൃദങ്ങൾ	Discussion	Text	
		Module III		
48	സാവിത്രിയുടെ മൈന	Discussion	Text	
49	സാവിത്രിയുടെ മൈന	Reading Discussion	Text	
50	സാവിത്രിയുടെ മൈന	Discussion	Text	
51	നാനോടെക്നോളജി	Lecturing	Text	

52	നാനോടെക്നോളജി	Discussion	Text	
53	നാനോടെക്നോളജി	Lecturing	Text	
54	വി.ടി യുടെ വീട് ലോകം	Reading Discussion	Text	
55	വി.ടി യുടെ വീട് ലോകം	Discussion	Text	
56	വി.ടി യുടെ വീട് ലോകം	Discussion	Text	
57	നവോത്ഥാനത്തിന്റെ പാഠങ്ങൾ	Lecturing	Text	
58	നവോത്ഥാനത്തിന്റെ പാഠങ്ങൾ	Discussion		
59	നവോത്ഥാനത്തിന്റെ പാഠങ്ങൾ	Lecturing Discussion	Text	
60	കേരളഫോക്ലോർ	Reading	Text	
61	കേരളഫോക്ലോർ	Lecturing	Text	
62	കേരളഫോക്ലോർ	Discussion	Text	
63	കേരളഫോക്ലോർ	Discussion	Text	
64	കേരളഫോക്ലോർ	Reading	Text	
65	കേരളഫോക്ലോർ	Reading	Text	
66	കേരളഫോക്ലോർ	Lecturing	Text	
67	കേരളഫോക്ലോർ	Reading	Text	
68	കേരളഫോക്ലോർ	Lecturing	Text	
69	കേരളഫോക്ലോർ	Reading	Text	
70	കലയും സമൂഹവും	Discussion	Text	
71	കലയും സമൂഹവും	Discussion	Text	
72	കലയും സമൂഹവും	Discussion	Text	
73	സംവാദം	Discussion	Text	
74	സംവാദം	Discussion	Text	
75	സംവാദം	Discussion	Text	
		Module IV		
76	വർത്തമാന പത്രം വായനക്കുമുൻപുള്ള വർത്തമാനങ്ങൾ	Discussion	Text	
77	വർത്തമാന പത്രം വായനക്കുമുൻപുള്ള വർത്തമാനങ്ങൾ	Discussion	Text	
78	വർത്തമാന പത്രം വായനക്കുമുൻപുള്ള വർത്തമാനങ്ങൾ	Discussion	Text	
79	കാലാവസ്ഥാ മാറ്റവും തീരദേശ ജൈവവൈവിധ്യവും	Discussion	Text	
80	കാലാവസ്ഥാ മാറ്റവും തീരദേശ ജൈവവൈവിധ്യവും	Discussion	Text	
81	കാലാവസ്ഥാ മാറ്റവും തീരദേശ ജൈവവൈവിധ്യവും	Discussion	Text	
82	കാലാവസ്ഥാ മാറ്റവും	Discussion	Text	

	തീരദേശ ജൈവവൈവിധ്യവും			
83	Revision	Discussion	Text	
84	സെമിനാർ	Presentation	Text	
85	സെമിനാർ	Discussion	Text	
86	സെമിനാർ	Presentation	Text	
87	സെമിനാർ	Discussion	Text	
88	സെമിനാർ	Presentation	Text	
89	സെമിനാർ	Discussion	Text	
90	Evaluation of course	Discussion	Text	

ASSIGNMENTS

Sl no	Date of submission/completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	By February	ഉപന്യാസതത്വങ്ങൾ വിവരിക്കുക
2		മലയാളഭാഷയും കേരളീയ സമൂഹവും

SEMINAR

	Date of submission/completion	Topic of semiar & Nature of seminar (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	By February	പാഠഭാഗങ്ങളുടെ അവതരണം
2		പാഠഭാഗങ്ങളുടെ അവതരണം

\Reference :

1. സമ്പൂർണ മലയാള സാഹിത്യചരിത്രം –എഡിറ്റർ :പന്മന രാമചന്ദ്രൻ നായർ
2. മലയാളത്തിന്റെ ഭാവി -കെ. സേതുരാമൻ
3. എഴുത്തിന്റെ വഴികൾ - എം .ജി . യൂണിവേഴ്സിറ്റി പ്രസിദ്ധീകരണം
4. ഗദ്യവിതാനം- എം .ജി . യൂണിവേഴ്സിറ്റി പ്രസിദ്ധീകരണം

COURSE PLAN

PROGRAMME	BACHELOR OF SCIENCE (PHYSICS)	SEMESTER	4
COURSE CODE AND TITLE	15U4CRPHY04: SEMICONDUCTOR PHYSICS	CREDIT	3
HOURS/WEEK	3	HOURS/SEM	54
FACULTY NAME	MATHEW GEORGE, SIBY MATHEW, ALEX SHINU SCARIA		

COURSE OBJECTIVES

Understand the basic physics of semiconductors, p-n junctions, rectifiers, voltage multipliers and simple waveshaping circuits.
Understand the basic physics of transistor operation and analyse various transistor amplifier circuits
Understand the physics of simple oscillator circuits
Understand basics and applications of operational amplifiers as well as modulation techniques like AM and FM

Session	Topic	Method	Remarks
	Module I Semiconducting diodes and applications (14 hours)		
1	PN Junction, Depletion layer , Barrier potential	Lecture / Discussion	
2	Biasing-forward and reverse, Reverse breakdown	Lecture / Discussion	
3	Junction capacitance and diffusion capacitance-	Lecture / Discussion	
4	PN Junction diode – VI characteristics–	Lecture / Discussion	
5	Diode parameters, Diode current Equation	Lecture / Discussion	
6	Diode , testing , Ideal diode.	Lecture / Discussion	
7	Zener diode and its reverse characteristics, Thermistors.	Lecture / Discussion	
8	Rectification - Half wave, Full wave, Efficiency & Ripple factor	Lecture / Discussion	

9	Centre tapped, Bridge rectifier circuits, Efficiency & Ripple factor	Lecture / Discussion	
10	Filter circuits – Inductor Filter, Capacitor Filter , LC Filter , pi Filter-	Lecture / Discussion	
11	Regulated Power supplies - Zener diode regulator	Lecture / Discussion	
12	Voltage multipliers –Doubler Tripler	Lecture / Discussion	
13	Wave shaping circuits - Clipper - Positive & negative	Lecture / Discussion	
14	Biased –Clampers-Positive, negative and biased.	Lecture / Discussion	
	Module II Transistors Configurations and Feed back (12 hours)		
15	Bipolar junction transistors	Lecture / Discussion	
16	Transistor biasing, CB configuration and characteristics	Lecture / Discussion	
17	Transistor biasing, CC configuration and characteristics	Lecture / Discussion	
18	Transistor biasing , CE configuration and characteristics	Lecture / Discussion	
19	Active, saturation and cut-off regions.	Lecture / Discussion	
20	Current gain α, β, γ and their relationships.	Lecture / Discussion	
21	Leakage currents-Thermal runaway.	Lecture / Discussion	
22	DC operating point and AC and DC Load line, Q-Point.	Lecture / Discussion	
23	Basic principles of feedback, positive & negative feedback	Lecture / Discussion	
24	Advantages of negative feedback	Lecture / Discussion	
25	Negative feedback circuits –voltage series & shunt	Lecture / Discussion	
26	Negative feedback circuits – current series & shunt.	Lecture / Discussion	
	Amplifiers and Oscillators (12 hours)		
27	Need for biasing - Stabilization -	Lecture / Discussion	
28	Voltage divider bias.	Lecture / Discussion	

29	Single stage transistor Amplifiers-	Lecture / Discussion	
30	CE amplifier -	Lecture / Discussion	
31	amplification factors.	Lecture / Discussion	
32	Decibel system	Lecture / Discussion	
33	Variations in Amplifier gain with frequency.	Lecture / Discussion	
34	Oscillatory Circuits	Lecture / Discussion	
35	LC oscillators –Hartley Oscillator	Lecture / Discussion	
36	Colpit's Oscillator	Lecture / Discussion	
37	RC oscillators-Phase shift Oscillator.	Lecture / Discussion	
38	Astable and monostable multivibrator (basic idea only)	Lecture / Discussion	
	Module III FET , Operational Amplifier & Modulation (16 hours)		
39	FET - Characteristics	Lecture / Discussion	
40	FET - Parameters.	Lecture / Discussion	
41	Comparison between FET and BJT.	Lecture / Discussion	
42	MOSFET (basic idea only)	Lecture / Discussion	
43	OP-amp-Symbol and terminals.	Lecture / Discussion	
44	Characteristics of ideal Op-amp, CMRR	Lecture / Discussion	
45	Applications-inverting, Non-inverting	Lecture / Discussion	
46	Unity follower	Lecture / Discussion	
47	Summing amplifiers	Lecture / Discussion	
48	Types of modulation – AM	Lecture / Discussion	
49	Types of modulation – FM	Lecture / Discussion	
50	Pulse modulation and Phase modulation (qualitative study only).	Lecture / Discussion	
51	Amplitude modulation-modulation index -	Lecture / Discussion	

52	Analysis of AM wave – Sidebands – bandwidth-	Lecture / Discussion	
53	AM Demodulation.	Lecture / Discussion	
54	Revision	Lecture / Discussion	

References

1. Basic Electronics-B.L.Theraja
2. A Text Book of Applied Electronics-R.S.Sedha

COURSE PLAN

PROGRAMME	BSC PHYSICS	SEMESTER	4
COURSE CODE AND TITLE	15U4CPCHE4.1 - ADVANCED PHYSICAL CHEMISTRY – II	CREDIT	3
HOURS/WEEK	3	HOURS/SEM	54
FACULTY NAME	*Dr. K B Jose, Dr. Thommachan Xavier, Dr. Abi T G*		

COURSE OBJECTIVES
Know the basics of spectroscopy.
Understand the fundamental principles of chemical kinetics and photochemistry
Explain the applications of electromotive force, electrochemistry and redox reactions

SESSION	**TOPIC**	**LEARNING RESOURCES**	**VALUE ADDITIONS**	**REMARKS**
MODULE I				
1.	Interaction of electromagnetic radiation with matter, electromagnetic spectrum	Chalk and Board		
2.	Quantization of energy, electronic, vibrational and rotational energy levels	Chalk and Board		
3.	Boltzmann distribution of energy (formula only), population of levels	Chalk and Board		
4.	UV- Visible Spectroscopy: Beer Lambert's law	Chalk and Board		
5.	molar extinction coefficient and its importance	Chalk and Board		
6.	UV spectrum, max, chromophore, auxochrome	Chalk and Board		
7.	Red shift, blue shift, types of transition	Chalk and Board		
8.	Infra-red spectroscopy: vibrational degrees of freedom	Chalk and Board		
9.	Types of vibrations – symmetric and asymmetric stretching and bending	Chalk and Board		
10.	Concept of group frequencies-frequencies of common functional groups in organic compounds.	Chalk and Board		
11.	Rotational Spectroscopy: diatomic molecules	Chalk and Board		

12.	Determination of bond length	Chalk and Board		
MODULE II				
13.	Rate of reaction, rate law	Chalk and Board		
14.	Order of reaction, molecularity of reaction	Chalk and Board		
15.	Integrated rate expression for first order reaction	Chalk and Board		
16.	Half life, determination of order of reactions	Chalk and Board		
17.	Influence of temperature on reaction rate – Arrhenius equation	Chalk and Board		
18.	Concept of activation energy	Chalk and Board		
19.	Importance of activated complex	Chalk and Board		
20.	Catalysis, examples	Chalk and Board		
MODULE III				
21.	Laws of Photochemistry	Chalk and Board		
22.	Photochemical process – primary and secondary, quantum yield	Chalk and Board		
23.	Basic Concepts of Photosensitized reactions	Chalk and Board		
24.	Flash photolysis and chemiluminescence	Chalk and Board		
25.	Frank-Condon principle – fluorescence and phosphorescence	Chalk and Board		
MODULE IV				
26.	Conductance of electrolytic solution, electrolytic conductivity (K)	Chalk and Board		
27.	Molar conductivity of solutions of electrolytes	Chalk and Board		
28.	Variation of conductivity and molar conductivity with concentration	Chalk and Board		
29.	Kohlrausch's law – application	Chalk and Board		
30.	Faraday's laws of electrolysis	Chalk and Board		
31.	Electrochemical equivalent and chemical equivalent	Chalk and Board		

32.	Transport number-determination by Hittorf's method	Chalk and Board		
33.	Applications of conductance measurements	Chalk and Board		
34.	Kw, Ksp, Conductometric titrations	Chalk and Board	Seminar	
35.	Strong and weak electrolytes.	Chalk and Board		
36.	Ostwald's dilution law	Chalk and Board		
37.	Hydrolysis of salts	Chalk and Board		
MODULE V				
38.	Galvanic cells, characteristics of reversible cells	Chalk and Board		
39.	Reversible electrodes – different types	Chalk and Board		
40.	Electrode potential – effect of electrolyte concentration on electrode potential and emf (Nernst equation)	Chalk and Board		
41.	Electrochemical series, representation of cell	Chalk and Board		
42.	EMF of cell	Chalk and Board		
43.	EMF and equilibrium constant of cell reaction	Chalk and Board		
44.	Concentration cells	Chalk and Board		
45.	General discussion of electrode – concentration cell and electrolyte concentration cells	Chalk and Board		
46.	Liquid junction potential, fuel cells – the hydrogen – oxygen fuel cell.	Chalk and Board		
47.	Application of emf measurement – determination of pH using hydrogen electrode, quinhydrone electrode, glass electrode	Chalk and Board	Seminar	
48.	Potentiometric titrations	Chalk and Board		
MODULE VI				
49.	Oxidation Reduction reactions: explanation with examples	Chalk and Board		
50.	oxidation states	Chalk and Board	Seminar	
51.	Rules to assign oxidation states in polyatomic molecules	Chalk and Board		

52.	Determination of oxidation states	Chalk and Board		
53.	Oxidation reduction titrations	Chalk and Board		
54.	Experimental method, example	Chalk and Board		

INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc.)
	11/1/2017	Difference between conductometric and potentiometric titrations

GROUP ASSIGNMENTS/ACTIVITES – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
	10/12/2016	Numerical problems related to electrochemistry and photochemistry

References

1. C. N. Banwell, E.M. McCash, Fundamentals of Molecular Spectroscopy, 4th edn. Tata McGraw – Hill Pub. C. Ltd. New Delhi.
2. Bruce H. Mahan, University Chemistry 3rd edn.
3. P. Atkins. J. Paula, Atkins Physical Chemistry. 8th edn.Oxford University Press, 2006.
4. B. R. Puri, L.R. Sharma, M. S. Pathania, Elements of Physical Chemistry, 40th edn. Vishal Pub. Co. Jalandhar (2003).

COURSE PLAN:

PROGRAMME	BSC PHYSICS	SEMESTER	4
COURSE CODE AND TITLE	15U4CPMAT04: FOURIER SERIES, PARTIAL DIFFERENTIAL EQUATIONS, NUMERICAL ANALYSIS AND ABSTRACT ALGEBRA	CREDIT	4
HOURS/WEEK	5	HOURS/SEM	90
FACULTY NAME	SANIL JOSE		

COURSE OBJECTIVES
Find the Fourier series expansion of a given periodic function in a specified interval.
Solve different types of differential equations
Discuss the solution using numerical method
Understand the concepts of groups, cyclic groups, permutation groups

SESSION	**TOPIC**	**LEARNING RESOURCES**	**VALUE ADDITIONS**	**REMARKS**
MODULE I				
1	Introduction to functions	PPT	video	
2	History	PPT	video	
3	Definition and examples of Fourier series of period 2π	Lecture		
4	Examples of Fourier series of period 2π	Lecture		
5	Examples of Fourier series of period 2π	Lecture		
6	examples of Fourier series of period 2π	Lecture		
7	examples of Fourier series of period 2π	Lecture		
8	Definition and examples of Fourier series of period $2l$	Lecture		
9	Examples of Fourier series of period $2l$	Lecture		
10	Examples of Fourier series of period $2l$	Lecture		
11	Examples of Fourier series of period $2l$	Lecture		
12	Half range Fourier Series	Lecture		
13	Examples	Lecture		
14	Examples	Lecture		

MODULE II				
15	Laplace Transforms- Introduction	PPT/Lecture		
16	Historical Aspects	Lecture		
17	Definition and examples of Lapalce Transform	Lecture		
18	Properties of Laplace transform	Lecture		
19	Properties of Laplace transform	Lecture		
20	Properties of Laplace transform	Lecture		
21	Examples and Applications	Lecture		
22	Examples and Applications	Lecture		
23	Examples and Applications	Lecture		
24	Inverse Laplace transforms	Lecture		
25	Inverse Laplace transforms	Lecture		
26	CIA-1			
27	Inverse Laplace transforms- Examples	Lecture		
28	Inverse Laplace transforms - Examples	Lecture		
29	Convolution theorem	Lecture		
30	Convolution theorem	Lecture		
31	Examples	Lecture		
32	Examples	Lecture		
33	Examples	Lecture		
34	Examples	Lecture		
35	Application to differential equations	Lecture		
36	Application to differential equations	Lecture		
37	Application to differential equations	Lecture		
38	Application to differential equations	Lecture		
39	Problems	Lecture		
40	Problems	Lecture	SEMINAR	
41	Problems	Lecture	SEMINAR	
42	Problems	Lecture	SEMINAR	
43	Revision	Lecture	GD	
44	Problems	Lecture	GD	
45	Class test	Lecture		
Module III				
46	Introduction to Fourier Transform	Lecture		
47	Definition of Fourier transform	Lecture		
48	Example and properties of Fourier transform	Lecture		
49	Example and properties of Fourier transform	Lecture		
50	Example and properties of Fourier transform	Lecture		
51	Example and properties of Fourier transform	Lecture		
52	Example and properties of Fourier	Lecture		

	transform			
53	Fourier Sine and cosine Integrals - Introduction	Lecture		
54	Fourier Sine and cosine Integrals- Examples	Lecture		
55	Fourier Sine and cosine Integrals - Examples	Lecture		
56	Complex form of Fourier Transforms	Lecture		
57	Complex form of Fourier Transforms	Lecture		
58	Complex form of Fourier Transforms	Lecture		
59	Inversion formula	Lecture		
60	Inversion formula	Lecture		
61	Revision/ GD	Lecture	GD	
MODULE IV				
62	Binary systems	Lecture		
63	Binary systems examples	Lecture		
64	Groups, Elementary properties of groups	Lecture		
65	Groups, Elementary properties of groups	Lecture		
66	Groups, Elementary properties of groups	Lecture		
67	Groups, Elementary properties of groups	Lecture		
68	Finite groups	Lecture		
69	Finite groups	Lecture		
70	Finite groups	Lecture		
CIA II				
71	Sub groups & cyclic groups	Lecture		
72	Sub groups & cyclic groups	Lecture		
73	Sub groups & cyclic groups	Lecture		
74	Lagrange’s theorem	Lecture		
75	Lagrange’s theorem	Lecture		
76	Permutation groups	Lecture		
77	Permutation groups	Lecture		
78	Revision	Lecture	GD	
79	Seminar /GD	Group activity	GD	
80	Seminar /GD	Group activity	GD	
81	Seminar /GD	Group activity	GD	
82	Seminar /GD	Group activity	GD	

83	Seminar /GD	Group activity	GD	
84	Seminar /GD	Group activity	GD	
85	Seminar /GD	Group activity	GD	
86	Seminar /GD	Group activity	GD	
87	Seminar /GD	Group activity	GD	
88	Seminar /GD	Group activity	GD	
89	Seminar /GD	Group activity	GD	
90	Summary of the syllubus	Lecture		

INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	By February	Problems in Fourier Series
2		Problems in differential Equations

Seminar – Details & Guidelines

	Date of completion	Topic of **Seminar** & Nature of **Seminar** (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	By February	Numerical Method
2		**Groups**

Text Book

1. Erwin Kreyszig : Advanced Engineering Mathematics, Eighth Edition, Wiley, India.
2. Ian Sneddon – Elements of Partial Differential Equation (Tata McGraw Hill)
3. S.S .Sastry : Introductory methods of Numerical Analysis ,4th edition (Prentice Hall)

4.John B Fraleigh- A first course in Abstract Algebra(7th Edition)Pearson Education

References

1) Advanced Engineering Mathematics by Michael D Greenberg, Pearson Education, 2002
2) Advanced Engineering Mathematics by Erwin Kreyszig, Eighth edition, Wiley, India.
3) Higher Engineering Mathematics, by B.S. Grewal, Khanna Publishers.
4) A First Course in Abstract Algebra, by John B Fraleigh, Seventh edition, Pearson Education.