

SACRED HEART COLLEGE (AUTONOMOUS)

Department of Physics

BSc Physics

Course plan

Academic Year 2018-19

Semester 1

PROGRAMME OUTCOMES	
PO 1	Critical Thinking: 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	Effective Communication: 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	Effective Citizenship: 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	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
PO 5	Ethics: Recognise different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO 6	Global Perspective: Understand the economic, social and ecological connections that link the world's nations and people.

PROGRAM SPECIFIC OUTCOMES	
PSO 1	Understand concepts relating to properties of matter, thermodynamics, classical mechanics, relativity and energy and environmental physics, incorporating the contributions of relevant physicists in these fields.
PSO 2	Apply and analyse the concepts of electricity, magnetism, electrodynamics, optics, spectroscopy and optoelectronics; with special emphasis on the contributions by eminent scientists in these fields.
PSO 3	Apply and analyse the concepts of semiconductor physics, digital electronics and computational physics; with special emphasis on the contributions by eminent scientists in these fields.
PSO 4	Apply and analyse the concepts of statistical mechanics, quantum mechanics, nuclear physics, particle physics, astrophysics, error analysis, superconductivity and condensed matter physics; with special emphasis on the contributions by eminent scientists in these fields.

COURSE STRUCTURE

COURSE CODE	TITLE OF THE COURSE	NO. HRS./WEEK	CREDITS	TOTAL HRS./SEM
15U1CCENG1	COMMUNICATION SKILLS IN ENGLISH	5	4	90
15U1CCENG2	Reading Literature in English	4	3	72
15U1CCHIN1A	PROSE AND DRAMA	4	4	72

15U1CCMAL1A	കവീത	4	3	72
15U1CCFRN1A	FRENCH LANGUAGE AND COMMUNICATION SKILLS I	4	3	72
15U1CCSAN1A	Drama Poetry and Alankara	4	3	72
15U1CRPHY01	Methodology in Physics	2	2	36
15U1CPCHE1	GENERAL CHEMISTRY	2	2	36
U115CPMAT01	DIFFERENTIAL CALCULUS AND TRIGONOMETRY	2	2	36

COURSE PLAN (COURSE 1)

PROGRAMME	BA English	SEMESTER	1
COURSE CODE AND TITLE	15U1CCENG1: COMMUNICATION SKILLS IN ENGLISH	CREDIT	3+1
HOURS/WEEK	5	HOURS/SEM	90
FACULTY NAME			

COURSE OUTCOMES

	COURSE OUTCOMES	PS O	PO
CO 1	Understand the mechanics of English language and comprehend the meaning of simple narrations, announcements and instructions.	1,4	1, 2
CO 2	Make inferences about the implications of statements from stress and tone recognize the various registers of speech.	1,3	1, 2
CO 3	Listen to formal presentations and prepare lecture notes in the appropriate format.	1,3,	1, 2, 3
CO 4	Use English for a variety of speaking contexts including conversations, presentations, speeches, discussions and negotiations.	1,3,4	1,2,3,4,5
CO 5	Critically evaluate presentations, narrations, speeches and analyse and evaluate their content and respond to them appropriately.	1,3,2	1,2,5
CO 6	Creatively respond to one's surroundings in the form of drama, poetry, narrations, and songs, and perform them before an audience.	1,3,	1,2,3,4,5, 6

CO - PO/PSO Mapping											
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4	PSO5
CO 1	3	2	0	0	0	0	3	2	1	0	2
CO 2	3	2	0	0	0	0	3	2	0	2	2
CO 3	1	3	1	0	0	0	3	2	2	1	2
CO 4	1	3	1	0	1	0	3	0	2	0	2
CO 5	1	3	1	1	2	1	3	1	0	2	2
CO 6	1	3	1	1	1	1	3	0	2	2	2

Indicators: 0- No Mapping strength, 1. Low, 2. Medium, 3. High

SESSIONS	TOPIC	METHOD	COS	REMARKS/ REFERENCE
1	Introduction to Communication Skills	Lecture	CO1,	
2	Phonetics: Introduction	PPT presentation	CO5,CO6,	
3	Unit 1 – Write as you speak	Audio presentation & Exercises	CO3, CO4,	
4	Unit 2 – Dip in Deep Sea	Audio presentation & Exercises	CO1, CO3,	
5	Unit 3 – Many Mad Men	Audio presentation & Exercises	CO3, CO4,	

6	Unit 4 – A Cot Caught in a Cart	Audio presentation & Exercises	CO1,CO3,	
7	Unit 5 – Look for Good Food	Audio presentation & Exercises	CO3, CO2,	
8	Unit 6 – Bad Luck, Early Worm and Unit	Audio presentation & Exercises	CO5, CO7	
9	Unit 7 - Again and Again	Audio presentation & Exercises	CO2, CO4	
10	Unit 8 – A China Clay Toy	Audio presentation & Exercises	CO1, CO3	
11	Unit 9 – Holy Cow	Audio presentation & Exercises	CO6,CO7	
12	Unit 10 – Here, There, Everywhere	Audio presentation & Exercises	CO6,CO7	
13	IAT – 1			
14	Discussion on the test paper	Discussion	CO4, CO6	
15	Unit 11 – Bzzing Bees & Hissing Snakes Unit 12 – Pleasure Ships on the sea	Audio presentation & Exercises	CO6, CO7	
16	Unit 13 – A Fine Vine Unit 14 – Thanks Brother!	Audio presentation & Exercises	CO1, CO3	
17	Unit 15 – Jane’s Chain Unit 16 – A Smiling King	Audio presentation & Exercises	CO2, CO3	
18	Unit 17 – Betty’s Bitter Butter Unit 18 – Have Your Way	Audio presentation & Exercises	CO1, CO3	
19	Unit 19 – Right Road, Light Road Revision	Audio presentation & Exercises Drill Exercises	CO1, CO3	

20	Revision Exercises	Drill Exercises	CO5,CO7	
21	Unit 20 - Pronunciation: Syllables	Lecture Session	CO2, CO6	
22	Unit 21 - Word stress 1	Audio presentation & Exercises	CO2, CO6	
23	Unit 22 - Word stress 2	Audio presentation & Exercises	CO6, CO7	
24	Unit 22 - Stress and Parts of Speech	Audio presentation & Exercises	CO4, CO5	
25	Unit 23 - Sentence Stress	Audio presentation & Exercises	CO5, CO7	
26	Holiday – SreeNarayana guru samadhi			
27	Holiday - Bakrid			
28	IAT – 2			
29	Performance Analysis _ IAT 2	Discussion	, CO5, CO7	
30	Unit 24 – Weak forms & Strong Forms Unit 25 – Contracted forms	Audio presentation & Exercises	CO2, CO3,	
31	Unit 26 – Intonation	Audio presentation & Exercises	CO1, CO7	
32	Unit 27 – Different accents	Lecture and Drill	CO2, CO3,	
33	Influence of Mother tongue	Lecture and Drill	CO2, CO4	

ASSIGNMENTS

No.	Date	Topic of Assignment & Nature of assignment (Individual/ Group – Written/ Presentation – Graded or Non-graded etc)	Course Outcome
1	Mid of semester	Write a note on your bus trip the college & present it before the class.	CO6
2	Mid of semester	Write a descriptive note on the sights and sounds of the college canteen + presentation before the class	CO5, CO6

3	Mid of semester	Write an interesting conversation you listened to recently and present it before the class with your partner.	CO4, CO5
4	Mid of semester	Identify a passage from any textbook or magazine, underline a pair of consonant sounds and read the same in the class giving special emphasis to the pair of sounds chosen	CO2
5	Mid of semester	Write a description of the Lakeview ground	CO6
6	Mid of semester	Describe the college auditorium	CO6
7	Mid of semester	Describe the sights and sounds in the portico of the college on any given day	CO6, CO5
8	Mid of semester	Describe the aquarium in the portico	CO7
9	Mid of semester	Narrate your experiences of any day on the campus	CO5

REFERENCES

V.Sasikumar, P Kiranmai Dutt and Geetha Rajeevan, Communication Skills in English. Cambridge University Press and Mahatma Gandhi University.

FURTHER READING

Sl.No	Title	Author	Publisher & Year
1	A Course in Listening and Speaking I & II	Sasikumar V.,Kiranmai Dutt and Geetha Rajeevan	New Delhi: CUP, 2007
2	Study Listening: A Course in Listening to Lectures and Note-taking	Tony Lynch	New Delhi: CUP, 2008
3	Study Speaking: A Course in Spoken English for Academic Purposes	Anderson, Kenneth, Joan Maclean and Tony Lynch	New Delhi: CUP, 2008
4	Study Reading: A Course in Reading Skills for Academic Purposes	Glendinning, Eric H. and Beverly Holmstrom	New Delhi: CUP, 2008
5	Communication Studies	Sky Massan	Palgrave Macmillan
6	Effective Communication for Arts and Humanities Students	Joan Van Emden and Lucinda Becker	Palgrave Macmillan

COURSE 2

PROGRAMME	BSc	SEMESTER	1
COURSE CODE AND TITLE	15U1CCENG2: Reading Literature in English	CREDIT	3
HOURS/WEEK	4	HOURS/SEM	72
FACULTY NAME			

COURSE OUTCOMES

	COURSE OUTCOMES	PO/ PSO	CL
CO1:	Explain the nuances of English Language through literature.	PO2,	A
CO2:	Compare the Varied parameters of English language.	PO1, PO2	An
CO3:	Discover comprehensive ability.	PO1	U
CO4:	Connect the efficiency of the students with realities of life.	PO1	A
CO5:	Evaluate the beauty of literary expression.	PO2	E

CL* Cognitive Level

R-Remember

U- Understand

A- Apply

An- Analyze

E- Evaluate

Cr- Create

CO -PO/PSO Mapping

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	0	3	0	0	0	0	0	0	1	0	0
CO 2	3	2	0	0	0	0	0	0	1	0	0
CO 3	3	0	0	0	0	0	0	0	1	0	3
CO 4	2	0	0	0	0	0	0	0	0	3	0
CO 5	0	2	0	0	0	0	0	0	0	0	0

Mapping Strength

- 0. No Mapping strength
- 1- Low
- 2- Medium
- 3- High

Sessions	Topic	Method	Course Outcome
1	Introducing the text book	Group Discussion	CO3
2	Bores E V Lucas	Lecture	CO2, CO3
3	Bores E V Lucas	Lecture	CO2, CO3
4	A Glory has Departed- Jawaharlal Nehru	Presentation by students, Listening to the speech made by Nehru.	CO1, CO3
5	A Glory has Departed- Jawaharlal Nehru	Individual presentations	CO1, CO4
6	Tryst with Destiny- Amartya Sen	Lecture, Discussion	CO1, CO4
7	Tryst with Destiny- Amartya Sen	Correction of notes	CO1
8	How to Escape from Intellectual Rubbish- Bertrand Russel	Lecture	CO3
9	How to Escape from Intellectual Rubbish- Bertrand Russel	Lecture	CO3
10	Sonnet XXX-William	Discussion on sonnets, its structure,	CO5, CO3

	Shakespeare	themes	
11	Ode to a Nightingale-John Keats	Discussion on romantic poetry	CO5
12	Ode to a Nightingale- John Keats	Discussion, Lecture	CO5
13	Mending Wall- Robert Frost	Lecture, Discussion on relationships, barriers	CO3
14	Mending Wall- Robert Frost	Seminar presentations	CO1, CO4
15	First Internal Examination	Written Examination	
16	The Bicycle- David Malouf	Lecture, discussion	CO3, CO1
17	Distribution of answer sheets	Discussion	CO3
18	Poor Girl- Maya Angelou	Presentation by the students- discussion on gender discrimination	CO1, CO4
19	The Mask- Kamala Suraiya	Presentation by the students	CO4
20	Goodbye party for Miss Pushpa T S- Nissim Ezekiel	Presentation by the students	CO4, CO1
21	Once Upon a Time-Gabriel Okara	Discussion on relationships, African culture	CO1, CO4
22	The Lottery Ticket- Anton Pavlovich Chekhov	Role play	CO1, CO4
23	The Lottery Ticket- Anton Pavlovich Chekhov	Presentation based on select topics	CO3, CO1
24	Retrieved Reformation- O. Henry	Lecture, story reading, Discussion on O Henry endings	CO3, CO4
25	Retrieved Reformation- O. Henry	Discussion	CO3
26	A Shadow- R K Narayan	Reading- discussion –presentation by the students	CO1, CO3
27	A Shadow- R K Narayan	Discussion of questions and answers	CO4
28	Correction of notebooks	Discussion	CO4
29	A Devoted Son- Anita Deasi	Lecture	CO3
30	A Devoted Son- Anita Deasi	Discussion based on questions	CO1,CO4
31	Two Gentlemen of Verona- A J Cronin	Presentation by students	CO4
32	Refund- Fritz Karinthy	Role play- discussion on educational system	CO5
33	Refund- Fritz Karinthy	Role play- discussion on educational system	CO5
34	Lord Byron's Love Letter- Tennessee Williams	Presentation by the students	CO3
35	Lord Byron's Love Letter- Tennessee Williams	Presentation by the students	CO3, CO1
36	The Monkey's Paw- W.W Jacob	Presentation by the students	CO1, CO3
37	The Monkey's Paw- W.W	Presentation by the students	CO1

	Jacob		
38	Second Examination	Internal	Written Examination
39	Revision		CO4
40	Revision		CO3

ASSIGNMENT

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

REFERENCE

- Dr. Leesa Sadasivan Ed. Reading Literature in English. Foundation Books and Mahatma Gandhi University.

COURSE PLAN

PROGRAMME	BACHELOR OF PHYSICS	SEMESTER	1
COURSE CODE AND TITLE	15U1CCHIN1A – PROSE AND DRAMA	CREDIT	4
HOURS/WEEK	4	HOURS/SEM	72
FACULTY NAME	Dr. MINIPRIYA R, SYAMLAL M. S		

Programme Outcome

	Programme Outcome
PO 1	Critical Thinking: 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	Effective Communication: 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	Effective Citizenship: 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	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
PO5	Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO 6	Global Perspective: Understand the economic, social and ecological connections that link the world's nations and people.

BACHELOR OF PHYSICS

PROGRAM SPECIFIC OUTCOMES	
PSO 1	Comprehend the core concepts of Physics
PSO 2	Acquire analytical and logical skills for higher Education.
PSO 3	Excel in Experimental and Theoretical Physics.
PSO 4	Take up jobs in allied fields.
PSO 5	Excel in competitive exams.

	COURSE OUTCOMES	PO/ PSO	CL
CO 1	Understand and explain the different prose forms written in Hindi language.	PO1, PO2, PO6, PSO 2	U
CO 2	Understand various trends in Hindi Drama and its presentation.	PO1, PO2, PO5	A
CO 3	Understand the ancient Indian culture	PO1, PO2, PO5, PO6, PSO 2	An
CO 4	Understand the socio - cultural change in literature	PO1, PO3, PO6, PSO 2	U
CO 5	Understand the development of literature and aesthetics	PO1, PO3, PO4, PO5, PSO 2	An

CL* Cognitive Level

R- Remember

U- Understand

A- Apply

An- Analyze

E- Evaluate

Cr- Create

CO - PO/PSO Mapping

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4
CO 1	2	2				2		1		
CO 2	2	2			2					
CO 3	2	2			2	1		1		
CO 4	2		2			2		2		
CO 5	2		2	2	2	2		1		

Mapping Strength

0- No Mapping strength

1- Low

2- Medium

3- High

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	COURSE OUTCOME
MODULE I				
1	General information about literature	Lecture/Discussion		CO 4, CO 5
2	Development of Drama	Lecture/Discussion		CO 1, CO 2
3	Madhavi – Introduction of Author Bishma	Lecture/PPT		CO 2, CO 5

	Sahni			
4	Madhavi Act – 1, Scene -1	Lecture	Video	CO 2
5	Essay - Jeevan Mein Sahitya Ka Sthan Introduction of Author Premchand	Lecture/Discussion		CO 1, CO 4
6	Premchand and his literary works	Lecture/PPT		CO 5
7	Madhavi Act – 1, Scene -1	Lecture	Narration of stories related to 'Mahabharat'	CO 2
8	Revision	Interaction	Video	CO1, CO 4
9	Madhavi Act – 1, Scene -1	Lecture		CO 2
10	Madhavi Act – 1, Scene -2	Lecture/Discussion		CO 2
11	Essay - Jeevan Mein Sahitya Ka Sthan	Lecture		CO 1, CO 4
12	Revision	Interaction	Presentation by students	CO 1, CO4
13	Madhavi Act – 1, Scene -2	Lecture		CO 2
14	Madhavi Act – 1, Scene -2	Lecture		CO 2
15	Madhavi Act – 1, Scene -3	Lecture	Presentation by students	CO 2
16	Essay - Jeevan Mein Sahitya Ka Sthan	Interaction	Acting	CO 1, CO 4
17	Analyzing the characters of 'Madhavi'	Interaction	Conversation	CO 2,CO 3, CO 4
18	Essay - Jeevan Mein Sahitya Ka Sthan	Lecture	Seminar	CO 1, CO 4
19	Madhavi Act – 1, Scene -3	Lecture/Discussion	Video	CO 2
20	Essay - Jeevan Mein Sahitya Ka Sthan	Lecture		CO 1, CO 4
21	Essay - Jeevan Mein Sahitya Ka Sthan	Interaction		CO 1, CO 4
22	Essay - Jeevan Mein Sahitya Ka Sthan	Lecture/Discussion		CO 1, CO 4
23	Essay - Sahitya Ki Mahatta	Lecture/PPT		CO 1, CO 5

	Introduction of Author Mahaveer Prasad Dwivedi			
24	CIA – I (1Hour Exam)			
MODULE II				
25	Essay - Sahitya Ki Mahatta	Lecture	Seminar	CO 1, CO 4
26	Essay - Sahitya Ki Mahatta	Lecture		CO 1, CO 4
27	Essay - Sahitya Ki Mahatta	Lecture		CO 1, CO 4
28	Essay - Sahitya Ki Mahatta	Lecture/Discussion		CO 1, CO 4
29	Revision	Interaction	Seminar	CO 1, CO 4
30	Madhavi Act – 2, Scene -1	Lecture		CO 2
31	Madhavi Act – 2, Scene -1	Lecture	Presentation by students	CO 2, CO 4
32	Madhavi Act – 2, Scene -1	Lecture/Discussion		CO 2
33	Madhavi Act – 2, Scene -2	Lecture		CO 2
34	Madhavi Act – 2, Scene -2	Lecture		CO 2
35	Madhavi Act – 2, Scene -2	Lecture	Presentation by students	CO 2, CO 4
36	Revision	Interaction	Video	CO 2, CO 4
37	Madhavi Act – 2, Scene -3	Lecture		CO 2, CO 4
38	Madhavi Act – 2, Scene -3	Lecture/Discussion		CO 2
39	Essay - Lalit Kalayen Introduction of the Author Dr. Syamsundar Das	Lecture/PPT		CO 1, CO 4
40	Essay - Lalit Kalayen	Lecture	Seminar	CO 1, CO 4
41	Essay - Lalit Kalayen	Lecture		CO 1, CO 3
42	Essay - Lalit Kalayen	Lecture/Discussion		CO 1, CO 3 CO 4
43	Essay - Lalit Kalayen	Lecture/Discussion		CO 1, CO 4
44	Madhavi Act – 2, Scene -3	Lecture	Video	CO 3
45	Madhavi Act – 2, Scene -3	Lecture	Video	CO4

46	Interactive session	Discussion	Debate	CO1, CO4 , CO 5
47	CIA – II (2 Hours Exam)			
MODULE III				
48	Essay - Rashtra Ka Swaroop Introduction of the Author Vasudev Saran Agraval	Lecture/PPT		CO 1 , CO 5
49	Essay - Rashtra Ka Swaroop	Lecture		CO 1, CO 4
50	Essay - Rashtra Ka Swaroop	Lecture		CO 1, CO 4
51	Essay - Rashtra Ka Swaroop	Discussion	Presentation by students	CO 1, CO 4
52	Madhavi Act – 2, Scene -4	Lecture		CO 2
53	Madhavi Act – 2, Scene -4	Lecture		CO 2
54	Madhavi Act – 3, Scene -1	Lecture		CO 2, CO 4
55	Madhavi Act – 3, Scene -1	Lecture/Discussion		CO 2, CO 4
56	Revision	Discussion	Video	CO 2, CO 4
57	Essay - Tum Ghar Kab Aoge Kavi Introduction of the Author Ramdhari Sinh Dinakar	Lecture/PPT		CO 1, CO 5
58	Essay - Tum Ghar Kab Aoge Kavi	Lecture		CO 1
59	Essay - Tum Ghar Kab Aoge Kavi	Lecture	Seminar	CO 1
60	Essay - Tum Ghar Kab Aoge Kavi	Lecture		CO 1
61	Essay - Tum Ghar Kab Aoge Kavi	Lecture/Discussion		CO 1, CO 4
62	Essay - Tum Ghar Kab Aoge Kavi	Discussion	Presentation by students	CO 1, CO 4
63	Madhavi Act – 3, Scene -2	Lecture		CO 2,CO 4 CO 5
64	Madhavi Act – 3, Scene -2	Lecture		CO 2
65	Madhavi Act – 3, Scene -2	Lecture/Discussion	Video	CO 2, CO 5
66	Madhavi Act – 3,	Lecture	Video	CO 2

	Scene -3			
67	Madhavi Act – 3, Scene -3	Lecture/Discussion	Presentation by students	CO 2, CO 4
68	Madhavi Act – 3, Scene -3			CO2, CO 4
69	Madhavi Conclusion	Interaction	Criticising the drama	CO 2, CO 3
70	Seminar			CO 1, CO 5
71	Seminar			CO 1, CO 5
72	Evaluation of the course			CO 1, CO 2, CO 3, CO4, CO 5

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)	Course Outcome
1	Assignment (October)	Review of a lesson based on the text book 2 and reference- Writing (Individual)	CO 2, CO 4
2	Seminar (October)	Presentation on a given topic based on t the text book 1 and reference – oral (Individual)	CO 1, CO 3

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)	Course Outcome
1	September	Literary Analysis of drama and its video (Group Discussion)	CO 2
2	September	Presentation of any scene from drama Madhavi.(Group Activity)	CO 2

References

- **Hindi Natak Ka Itihas : Somanath Gupth Hindi Bhavan, Allahabad**
- **Yug- Chaya , Editor: Shivdan Singh Chouhan, Rajkamal Prakashan,New Delhi.**

Web resource references:

- epustakalay.com
- www.hindikunj.com

COURSE PLAN

PROGRAMME	BSc PHYSICS	SEMESTER	1
COURSE CODE AND TITLE	15U1CCFRN1A - FRENCH LANGUAGE AND COMMUNICATION SKILLS I	CREDIT	4
HOURS/WEEK	4	HOURS/SEM	72

Programme Outcome

	Programme Outcome
PO 1	Critical Thinking: 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	Effective Communication: 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	Effective Citizenship: 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	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
PO5	Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO 6	Global Perspective: Understand the economic, social and ecological connections that link the world's nations and people.

BACHELOR OF SCIENCE - PHYSICS

PROGRAM SPECIFIC OUTCOMES	
PSO 1	Comprehend the core concepts of Physics.
PSO 2	Acquire analytical and logical skills for Higher Education.
PSO 3	Excel in Experimental and Theoretical Physics.
PSO 4	Take up jobs in allied fields.

PSO5	Excel in competitive exams.
------	-----------------------------

	COURSE OUTCOMES	PO/ PSO	CL
CO 1	Understand the basic concepts of French language including grammar, vocabulary and sentence structure	PO1,PO2, PO6, PSO4,PSO5	U
CO 2	Understand the basic communication skills necessary for living in France and French speaking countries.	PO1, PO5,PO6, PO2,PSO4,PSO5	U
CO 3	Describe oneself and ones surroundings using a repertory of words and expressions in a simple and structured grammatical manner.	PO1, PO4, PO6,PSO4,PSO5	A
CO 4	Develop business communication skills	PO2, PO4,PO5, PO6,PSO4,PSO5	A
CO 5	Express an issue of concern including topics like environmental, social or health issues, enumerate its causes and consequences and suggest solutions	PO1,PO2,PO3,PO5,PO6,PSO4,PSO5	A
CO 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	PO6,PO2,PSO4,PSO5	U
CO 7	Understand and appreciate the history of France and Francophone countries and compare it to one's own country	PO2,PO6,PSO4,PSO5	U
CO 8	Understand the special features of France including gastronomy, social institutions, policis, the present French scenario and compare it to one's own country	PO1,PO2,PO5,PO6,PSO4,PSO5	U

CL* Cognitive Level

CL* Cognitive Level

R- Remember

U- Understand

B- Apply

An- Analyze

E- Evaluate

Cr- Create

CO - PO/PSO Mapping

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4	PSO5
CO 1	2	2				2				3	3
CO 2	2	2			2	2				3	3
CO 3	2			2		2				3	3
CO 4		2		2	2	2				3	3
CO 5	2	2	2		2	2				3	3
CO6		2				2				3	3
CO7		2				2				3	3
CO8	2	2			2	2	1			3	3

--	--	--	--	--	--	--	--	--	--	--	--

Mapping Strength

0. No Mapping strength
1. Low
2. Medium
3. High

Session	Topic	Method of Teaching	Value Additions	CO
MODULE I				
1	Introducing French Basics	role play, Discussion	french basic communication	1,2,3
2	French basics -alphabets	chalk n talk, audio	Lecture	1,2,3
3	french basics	audio ppt, discussion	Lecture	1,2,3
4	french basics	chalk n talk	Lecture	1,2,3
5	numbers 1-20	role play,audio ppt	Lecture	1,2,3
6	verbs introduction	chalk n talk	Lecture	1,2,3
7	conjugation introduction	chalk n talk,ppt audio	audio	1,2,5
8	Greetings	role play,audio ppt	Know a new culture	1,2,6
9	Basic useful sentences in French	role play, audio ppt	Q and A	1,2,3
10	spell in French	role play,audio ppt	presentation	1,2,
11	Indefinite articles	chalk n talk,audio ppt	Lecture	1,2
12	prononciation of vowels	role play,audio ppt	Lecture	1,2
13	French culture	Discussion, audio,ICT	Lecture,q nd A	6,7,8
14	Revision			
MODULE II				
15	introducing a third person	game,audio ppt	Q nd A	2,3
16	Asking personal information in french	role play,audio ppt	Lecture	2,3
17	Giving personal information in french	role play,audio ppt	Interaction	2,3
18	verbs etre ,avoir	chalk n talk	Lecture	2,3
19	ER verbs	chalk n talk, audio ppt	Lecture	2,3
20	adjectives of nationalities	role play, conversation	Lecture	2,3
21	grammar articles	role play, listening	Ppt	2,3
22	CIA 1			2,3

23	Profession	cross words,chalk n talk	Lecture	2,3
24	interests and tastes	role play,audio	Lecture	2,3,4
25	Masculine,feminine of adjectives	exercices ,chalk n talk,audio	Lecture	1,2,4,5
26	French culture- french names and profession	roleplay,audio	knowing culture	5,6,7,8
27	explaining the objective of learning French	Discussion, ICT,audio	Lecture,q and A	5,6,7,8
28	Revision			
		MODULE III		
29	describe a locality	oral, description	Q and A	2,3,
30	Express in quantity	role play,chalk n talk	Lecture	2,3
31	"vivre" verb conjugation	audio,chalk n talk	Lecture	2,3
32	places vocabulary	games,music,audio	Video	2,3,5
33	Il y a,	audio,	daily needed vocabs	2,3
	il n'y a pas	chalk n talk		
34	definite articles	chalk n talk,audio ppt	Lecture	2,3
35	Adjectives	role play,audio ppt	Lecture	2,3
36	Prepositions	role play ,audio ppt	Lecture	2,3,4
37	Negation	chalk n talk/roleplay	Lecture	2,3
38	Qualificative adjectives	chalk n talk ,audio ppt	Q and A	2,3
39	Describing ur ideal locality	role play/presentation	Lecture	2,3
40	intonations	audio ppt	Lecture	1,2,3
41	French culture-express preference for city or village	Discussion	knowing culture	5,6,7,8
42	revision			
43	CIA 2			
44	Correspondig with a friend expressing one's likings	chalk n talk/Role plays	Q and A	2,3
45	speak about a persons character	role play ,GD	know each other	5,6,7
46	adjectif possessif part 1	chalk n talk,audio ppt	Lecture	1,2,3
47	adjectif possessif part 2	chalk n talk, audio ppt	Lecture	2,4,5
48	speak about the surroundings	discussion	Lecture	2,3
49	introduce and describe someone	role play	Lecture	2,3,4
50	activities - vocabulary	lecture,audio	Lecture	1,2,5
51	sports vocabulary	speaking/role play	general	1,2,3

			knowledge	
52	Vocabulary - relations	chalk n talk,audio ppt	Lecture	2,5,6
53	famous french personality	discussion/comprehension	Lecture	5,6,7,8
54	lexique des liens de parente	chalk n talk,audio ppt	Lecture	2,3,4
	Express ones likings	Audio ppt,discussion	Q and A	2,3
55	lexiques des loisirs	Audio ppt,discussion	Video	2,3
56	forme negation	Audio ppt,discussion	Q and A	2,3
57	pronunciation of verbs	Audio ppt,discussion	Q and A	2,3
58	form filling	Audio ppt,discussion	Q and A	2,3
59	french artists	Audio ppt,discussion	GK	2,3
60	french music	Audio ppt,discussion	Video	2,3
61	one's own musical preferences	Audio ppt,discussion	Q and A	
62	french music and comparison to one's own musical preference	discussion	knowing the culture	5,6,7,8
63	module 1 -revision			
64	module 1 -revision			
65	module 2- revision			
66	module 2-revision			
67	module 3-revision			
68	module 3-revision			
69	module 4-revision			
70	module 4-revision			
71	PYQs discussion			
72	PYQs discussion			

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	By October	Basic vocabulary on communication skills in Malayalam and French	CO 2,3,6,8
2		roleplays	CO 123456

References

Version Originale, site web

COURSE PLAN

PROGRAMME	BACHELOR OF SCIENCE,PHYSICS	SEMESTER	1
COURSE CODE AND TITLE	15U1CCSAN1A: DRAMA,POETRYAND ALANKARA	CREDIT	4
HOURS/WEEK	4	HOURS/SEM	72
FACULTY NAME	Dr.VIJAYARAJAN K.U		

Programme Outcome

Programme Outcome	
PO 1	Critical Thinking: 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	Effective Communication: 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	Effective Citizenship: 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	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
PO5	Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO 6	Global Perspective: Understand the economic, social and ecological connections that link the world's nations and people.

BACHELOR OF SCIENCE - PHYSICS

PROGRAM SPECIFIC OUTCOMES	
PSO 1	Comprehend the core concepts of Physics.
PSO 2	Acquire analytical and logical skills for Higher Education.
PSO 3	Excel in Experimental and Theoretical Physics.
PSO 4	Take up jobs in allied fields.

PSO5	Excel in competitive exams.
------	-----------------------------

	COURSE OUTCOMES	PO/ PSO	CL
CO 1	Students can understand the poetic style with special reference to classical literature	PO1,PO2, PO6, PSO2	U
CO 2	Students get an awareness about Indian classical poetic tradition	PO1, PO5,PO6,PO2,PSO2	U
CO 3	Students familiarize the figures of speech and their usage	PO1, PO4, PO6,PSO2	A
CO 4	Students get an awareness about ascthetic values	PO2, PO4,PO5, PO6,PSO2	A
CO 5	Express an issue of concern including topics like environmental, social or health issues, enumerate its causes and consequences and suggest solutions	PO1,PO2,PO3,PO5,PO6,PSO2	A
CO 6	Understand moral values through Drama	PO6,PO2,PSO2	U
CO 7	Understand the tools to beutify the literature through Alankara	PO2,PO6,PSO2	U
CO 8	Students identify the richness of Indian Literature	PO1,PO2,PO5,PO6,PSO2	U

CL* Cognitive Level

CL* Cognitive Level

R- Remember

U- Understand

C- Apply

An- Analyze

E- Evaluate

Cr- Create

CO -PO/PSO Mapping

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4
CO 1	2	2				2		1		
CO 2	2	2			2	2		1		
CO 3	2			2		2		1		
CO 4		2		2	2	2		1	2	
CO 5	2	2	2		2	2		1		
CO6		2				2		1	1	
CO7		2				2		1		
CO8	2	2			2	2		1	2	

Mapping Strength

0. No Mapping strength
1. Low
2. Medium
3. High

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	COURSE OUTCOME
MODULE I				
1	Introducing Sanskrit Basics	Lecture		CO 1
2	About Mahakavya	Lecture		CO 1
3	About Kumarasambava	Lecture		CO 1
4	Fifth sarga of Kumarasambava	Lecture	e-resource	CO 1
5	Brahmacharipravesha	Lecture		CO 1
6	Parvathi's penance	PPT/Lecture		CO 1
7	Inviting Brahmachari	Lecture		CO 1
8	Purushartha	Lecture		CO 1
9	Himalaya	Lecture		CO 1
10	Conversation to Parvathy	Lecture		CO 1
11	Critisisation	PPT/Lecture		CO 1
12	Questioning	PPT/Lecture		CO 1
13	Upamas	PPT/Lecture		CO 1
14	Revision			
MODULE II				
15	Sanskrit Drama - Introduction	PPT/Lecture		CO 6,7
16	Mahakavi Bhasa's Dramas	Lecture		CO 6,7
17	Bhasa's Karnabharam	Lecture		CO 2,6,7
18	Mahabharatha	Lecture		CO 2,6,7
19	Mangalaslaka	Lecture		CO 2,6,7
20	Entry of Karna	PPT/Lecture		CO 3,6,7
21	Request to Karna	PPT/Lecture		CO 3,6,7
22	Duryodhana's order	PPT/Lecture		CO 3,6,7
23	Karna's sadness	PPT/Lecture		CO 3,6,7
24	Revenge	Lecture		CO 3,6,7
25	Karna's birth	Lecture		CO 3,6,7
26	CIA-1			
27	Kunthi's request	Lecture		CO 3,5,6,7
28	Karna's study	Lecture		CO 3,5,6,7
29	ParaShurama's teaching	PPT/Lecture		CO 3,5,6,7
30	Parashrama's curse	PPT/Lecture		CO3,5,6,7
31	Greatness of Kshathriyas	PPT/Lecture		CO 3,5,6,7
32	Bravery of Karna	Lecture		CO 6,7
33	Indra's request to karna	Lecture		CO 6,7
34	Brahmana's blessing	PPT/Lecture		CO 6,7

35	Karna offering Horses	PPT/Lecture		CO 6,7
36	Karna offering elephants	PPT/Lecture		CO 3,6,7
37	Karna offering gold	Lecture		CO 3,6,7
38	Karna offering his kavacha	Lecture		CO 3,6,7
39	Indra accepting kavacha and kundala	PPT/Lecture		CO 3,6,7
40	Indra's blessing	PPT/Lecture		CO 3,6,7
41	The greatness of giving	PPT/Lecture		CO 3,6,7
42	Revision			
43	Revision			
44	Revision			
45	Revision			
	MODULE III			
46	Alankara introduction			
47	Kuvalayananda	PPT/Lecture		CO 4,7
48	Upama alankara	PPT/Lecture		CO 4,7
49	Upamana ,Upameya ,sadharana dharma	PPT/Lecture		CO 4,7
50	Ullekha Alankara	PPT/Lecture		CO 4,7
51	Dipika Alankara	PPT/Lecture		CO 4,7
52	Dipika example	PPT/Lecture	Video	CO 4,7
53	Vyathireka Alankara	PPT/Lecture		CO 4,7
54	Aprastutaprasamsa	PPT/Lecture		CO 4,7
55	Revision			
56	Svabhavokthi Alankara	Lecture	Debate	CO 4,7
57	Rupaka Alankara	PPT/Lecture		CO 4,7
58	Drishtantha Alankara	PPT/Lecture		CO 4,7
59	Dristantha -example	PPT/Lecture		CO 4,7
60	Arthantharanyasa	PPT/Lecture		CO 4,7
61	Prathama Ullekha	PPT/Lecture		CO 4,7
62	Dvitheeya Ullekha	PPT/Lecture		CO 4,7
CIA - II				
	MODULE IV			
63	Characteristic of Karna	Lecture		CO 5,8
64	Characteristics of Shalya	Lecture	Group discussion	CO 5,8
65	Characteristics of Indra	Lecture		CO 5,8
66	Characteristics of Parvathi	PPT/Lecture		CO 5,8
67	Characteristics of Brahmachari	PPT/Lecture		CO 5,8
68	Himalaya	PPT/Lecture		CO 5,8
69	Revision			
70	Revision			
71	Revision			
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)	Course Outcome
1	12/08/2018	The role of Karna in Mahabharatha	CO 6,8
2	16/09/2018	Upama kalidasasya	CO 3

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	23/9/2018	The moral values in Kumarasambava	CO 8
2	30/9/2018	Purushartha –the means of life	CO 8

References

1. Bhasanatakacakram O.R.I& Manuscript Library Trivandrum
2. Bhasanatakamanjari, Dr. V.S. Idakidath, Saparya Books, Kollam
3. Kumarasambhavam by Kuttikrishna Marar
4. Bhasanatakasarvasvam Sudhamsu Chathurvedi
5. Kalidasa Hridayam, V. Unnikrishnan Nair
6. The Problems of Bhasa Plays, Dr. N.P. Unni
7. Abhijnana Sakunthalam, M.R.Kale
8. Kalidasarvasvam, Sudhamsucathurvedi
9. Kvalayanandam , Appayyadikshitha

COURSE PLAN-

PROGRAMME	B.Sc PHYSICS	SEMESTER	1
COURSE CODE & TITLE	15U1CCMAL1A കഥ നോവൽ	CREDITS	4
HOURS/WEEK	4	HOURS/SEM	72
FACULTY NAME	VISHNU RAJ P, Dr. JUSTINA K AUGASTINE		

Programme Outcome	
At the end of the programme, the student should be able to:	
PO1	Critical Thinking: 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
PO2	Effective Communication: 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
PO3	Effective Citizenship: 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
PO4	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
PO5	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development
PO6	Global Perspective: Understand the economic, social and ecological connections that link the world's nations and people

BACHELOR OF PHYSICS

PROGRAM SPECIFIC OUTCOMES	
PSO 1	Comprehend the core concepts of Physics
PSO 2	Acquire analytical and logical skills for higher Education.
PSO 3	Excel in Experimental and Theoretical Physics.
PSO 4	Take up jobs in allied fields.
PSO 5	Excel in competitive exams.

CO No	COURSE OUTCOMES	CL	PSO	PO
1	കഥ, നോവൽ എന്നിവയെക്കുറിച്ച് മെച്ചപ്പെട്ട ധാരണ ഉണ്ടാക്കുക	Un	2	5,6
2	ഭാഷാപഠനം സാഹിത്യാനുഭവത്തിലൂടെ ആവിഷ്കരിക്കുക	Re	2	4,5
3	വായനാഭിരുചി വർദ്ധിപ്പിക്കുക	Ap	2	3,2
4	സാഹിത്യ പരിചയം ഉണ്ടാക്കുക	Un	2	1,2
5	വ്യാവഹാരിക തലത്തിൽ മാതൃഭാഷാപ്രയോഗിക്കുവാനുള്ള കഴിവ് നേടുക	Ap	2	3,4
6	ഭാഷാപഠനത്തിലൂടെ ആശയവിനിമയശേഷി വർദ്ധിപ്പിക്കുക	Cr	2	4,5,6

CO - PO/PSO Mapping												
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO 1	0	0	0	0	2	2	0	1	0	0	0	0
CO 2	0	0	0	2	2	2	0	2	0	0	0	0
CO 3	0	2	2	0	0	0	0	2	0	0	0	0
CO 4	1	1	0	0	0	0	0	2	0	0	0	0
CO 5	0	0	2	2	0	0	0	2	0	0	0	0
CO 6	0	0	0	2	2	1	0	2	0	0	0	0

Mapping Strength: 0-No Mapping strength, 1- Low, 2-Medium, 3-High

COURSE PLAN

Sessio n	Topic	Learning Resources	Teaching Method	Course Outcome
Module I				
1	മലയാളസാഹിത്യം സാമാന്യാവലോകനം	സാഹിത്യചരിത്രങ്ങൾ	Lecturing	1,2,3,4
2	ചെറുകഥയുടെ ചരിത്രം -1	സാഹിത്യചരിത്രങ്ങൾ	Lecturing	1,2,3,4
3	ചെറുകഥയുടെ ചരിത്രം-2	സാഹിത്യചരിത്രങ്ങൾ	Discussion	1,2,3,4,6
4	തകഴിയുടെ രചനാലോകം	നോവൽ-ചെറുകഥാപഠനങ്ങൾ	Lecturing	2,3,4
5	വെളുത്തകുഞ്ഞ്	Text	Reading	1,2,3,4,5,6
6	വെളുത്തകുഞ്ഞ്	Text	Group Discussion	1,2,3,4,5,6
7	സന്തോഷ് ഏച്ചിക്കാനത്തിന്റെ കഥകൾ	ചെറുകഥാപഠനങ്ങൾ	Lecturing	2,3,4
8	അഭിനയമൂഹൂർത്തങ്ങൾ കഥ	Text	Reading	1,2,3,4,5,6
9	അഭിനയമൂഹൂർത്തങ്ങൾ കഥ	Text	Group Discussion	1,2,3,4,5,6
10	ഒ വി വിജയനെ പരിചയപ്പെടുത്തുന്നു	നോവൽ-ചെറുകഥാപഠനങ്ങൾ	Lecturing	2,3,4
11	കടൽത്തീരത്ത്	Text	Reading	1,2,3,4,5,6
12	കടൽത്തീരത്ത്	Text	Group Discussion	1,2,3,4,5,6
13	എൻ എസ് മാധവന്റെ കൃതികളുടെ രാഷ്ട്രീയം	നോവൽ-ചെറുകഥാപഠനങ്ങൾ	Lecturing	2,3,4
14	നാലാലോകം കഥ	Text	Reading	1,2,3,4,5,6
15	നാലാലോകം കഥ	Text	Group Discussion	1,2,3,4,5,6
16	നാലാലോകം കഥ	Text	Group Discussion	1,2,3,4,5,6
17	ചെറുകഥ - അവലോകനം	Text	Group Discussion	1,2,3,4
Module II				
18	എം ടി വാസുദേവൻ നായരുടെ കൃതികൾ	നോവൽ-ചെറുകഥാപഠനങ്ങൾ	Lecturing	2,3,4
19	ഷെർലക്ക്	Text	Reading	1,2,3,4,5,6
20	ഷെർലക്ക്	Text	Group Discussion	1,2,3,4,5,6
21	ഉണ്ണി ആറിനെ പരിചയപ്പെടുത്തുന്നു	നോവൽ-ചെറുകഥാപഠനങ്ങൾ	Lecturing	2,3,4
22	ഒറ്റപ്പെട്ടവൻ-	Text	Reading	1,2,3,4,5,6
23	ഒറ്റപ്പെട്ടവൻ-	Text	Group Discussion	1,2,3,4,5,6

24	ജോൺ എബ്രഹാം: സാഹിത്യവും സിനിമയും	നോവൽ- ചെറുകഥാ പഠനങ്ങൾ	Lecturing	2,3,4
25	നേർച്ചക്കോഴി	Text	Reading	1,2,3,4,5,6
26	നേർച്ചക്കോഴി	Text	Group Discussion	1,2,3,4,5,6
27	സാനാ ജോസഫ്, പുരാണ പുനർവായന	നോവൽ- ചെറുകഥാ പഠനങ്ങൾ	Lecturing	2,3,4
28	തായ്കുലം	Text	Reading	1,2,3,4,5,6
29	തായ്കുലം	Text	Group Discussion	1,2,3,4,5,6
30	ചെറുകഥ - അവലോകനം	Text	Group Discussion	1,2,3,4
31	Internal Assessment 1	Text		
32	Question paper discussion	Text	Group Discussion	1,2,3,4,5,6
Module III				
33	മാധവിക്കുട്ടിയുടെ കഥകളുടെ പ്രത്യേകതകൾ	നോവൽ- ചെറുകഥാ പഠനങ്ങൾ	Lecturing	2,3,4
34	പക്ഷിയുടെ മണം	Text	Reading	1,2,3,4,5,6
35	പക്ഷിയുടെ മണം	Text	Group Discussion	1,2,3,4,5,6
36	വൈക്കം മുഹമ്മദ് ബഷീറിന്റെ ലോകം	നോവൽ- ചെറുകഥാ പഠനങ്ങൾ	Lecturing	2,3,4
37	ശികിടിമുക്കൻ	Text	Reading	1,2,3,4,5,6
38	ശികിടിമുക്കൻ	Text	Group Discussion	1,2,3,4,5,6
39	സേതുവിന്റെ കൃതികൾ		Lecturing	2,3,4
40	ദൂത്	Text	Reading	1,2,3,4,5,6
41	ദൂത്	Text	Group Discussion	1,2,3,4,5,6
42	കെ ആർ മീരയുടെ എഴുത്തുകൾ	നോവൽ- ചെറുകഥാ പഠനങ്ങൾ	Lecturing	2,3,4
43	മോഹമഞ്ഞ	Text	Reading	1,2,3,4,5,6
44	മോഹമഞ്ഞ	Text	Group Discussion	1,2,3,4,5,6
45	ചെറുകഥ - അവലോകനം	Text	Group Discussion	1,2,3,4
Module - IV				
46	മലയാളനോവൽ ചരിത്രം	സാഹിത്യച രിത്രങ്ങൾ	Lecturing	1,2,3,4
47	മലയാളനോവൽ ചരിത്രം	സാഹിത്യച രിത്രങ്ങൾ	Group Discussion	1,2,3,4
48	മലയാളനോവൽ - നൂതന പ്രവണതകൾ	സാഹിത്യച രിത്രങ്ങൾ	Lecturing	1,2,3,4
49	മലയാളനോവൽ - നൂതന പ്രവണതകൾ	സാഹിത്യച രിത്രങ്ങൾ	Group Discussion	1,2,3,4
50	വിനോയ് തോമസ്- ആമുഖം	നോവൽ പഠനങ്ങൾ	Lecturing	1,2,3,4
51	കരിക്കോട്ടക്കരി- നോവൽ ആമുഖം	നോവൽ പഠനങ്ങൾ	Lecturing	1,2,3,4

52	കരിക്കോട്ടക്കരി അധ്യായം 1	Text	Group Discussion	1,2,3,4,6
53	കരിക്കോട്ടക്കരി അധ്യായം 2	Text	Group Discussion	1,2,3,4,6
54	കരിക്കോട്ടക്കരി അധ്യായം 3	Text	Group Discussion	1,2,3,4,6
55	കരിക്കോട്ടക്കരി അധ്യായം 4	Text	Group Discussion	1,2,3,4,6
56	കരിക്കോട്ടക്കരി അധ്യായം 5	Text	Group Discussion	1,2,3,4,6
57	കരിക്കോട്ടക്കരി അധ്യായം 6	Text	Group Discussion	1,2,3,4,6
58	കരിക്കോട്ടക്കരി അധ്യായം 7	Text	Group Discussion	1,2,3,4,6
59	കരിക്കോട്ടക്കരി അധ്യായം 8	Text	Group Discussion	1,2,3,4,6
60	കരിക്കോട്ടക്കരി അധ്യായം 9	Text	Group Discussion	1,2,3,4,6
61	കരിക്കോട്ടക്കരി അധ്യായം 10	Text	Group Discussion	1,2,3,4,6
62	കരിക്കോട്ടക്കരി അധ്യായം 11	Text	Group Discussion	1,2,3,4,6
	Internal Assessment 2			
63	കരിക്കോട്ടക്കരി അധ്യായം 12	Text	Group Discussion	1,2,3,4,6
64	കരിക്കോട്ടക്കരി അധ്യായം 13	Text	Group Discussion	1,2,3,4,6
65	കരിക്കോട്ടക്കരി അവലോകനം	Text	Group Discussion	1,2,3,4,6
66	സംവാദം- വിനോയ് തോമസ്	Text	Group Discussion	1,2,3,4,6
67	സെമിനാർ	Text	Presentation	1,2,3,4,6
68	സെമിനാർ	Text	Presentation	1,2,3,4,6
69	സെമിനാർ	Text	Presentation	1,2,3,4,6
70	സെമിനാർ	Text	Presentation	1,2,3,4,6
71	സെമിനാർ	Text	Presentation	1,2,3,4,6
72	Revision	Text	Group Discussion	1,2,3,4,5,6

ASSIGNMENTS

Sl no	Date of submission/completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	By October	മലയാളത്തിലെ തെരഞ്ഞെടുത്ത കഥാകൃത്തുക്കളുടെ വിവരങ്ങൾ
2		സിലബസിൽ പഠിക്കാൻ ഇല്ലാത്ത ഒരു നോവലിന്റെ ആസ്വാദനം

SEMINAR

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

Referance :

1. സമ്പൂർണ്ണ മലയാള സാഹിത്യചരിത്രം - എഡിറ്റർ :പത്മന രാമചന്ദ്രൻ നായർ
- 2.ചെറുകഥ ഇന്നലെ ഇന്ന് - എം അച്യുതൻ
- 3.മലയാള നോവൽ സാഹിത്യചരിത്രം - കെ എം തരകൻ

COURSE PLAN (COURSE 7)

PROGRAMME	BACHELOR OF PHYSICS	SEMESTER	1
COURSE CODE AND TITLE	15U1CRPHY01- METHODOLOGY IN PHYSICS	CREDIT	2+(1PRACTICAL)
THEORY HOURS/WEEK	2	HOURS/SEM	36
FACULTY NAME	DR. SUMOD S.G AND DR. SIBY MATHEW		

	COURSE OUTCOMES	PO/ PSO	CL
CO 1	Understand the development of physics in the last century and new scientific concepts from various scientist.	PO1, PSO1	U
CO 2	Understand Number systems and its significance.	PO1, PSO1	U
CO 3	Apply vector algebra in Physics.	PO1, PSO1	U/An
CO 4	Apply basic measurement techniques in Physics and experimental data.	PO1, PSO1	U/An

CL* Cognitive Level

CO - PO/PSO Mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3						3				
CO2	3						3				
CO3	3						3				
CO4	3						3				

Mapping Strength: 0-No mapping 1-Low 2-Medium 3-High

SESSION	TOPIC	LEARNING RESOURCES	COURSE OUTCOME
	MODULE I		
1	Introductory Session- Scope of Physics and general guidelines	Lecture	CO1
2	Bridging role of the present syllabus	Lecture/PPT	CO1
3	Ancient perspectives on the universe -	Lecture / Group Activity	CO1
4	Geocentric model of Ptolemy – Copernican revolution	Lecture	CO1

5	Galileo, and his emphasis on experiments and observations. Kepler's laws. Newton and the deterministic universe	Lecture	CO1
6	Maxwell and the unification of electricity, magnetism and optics.	Lecture	CO1
7	Planck's hypothesis of quantum. Quantum mechanics. Einstein and his theories of relativity	Lecture	CO1
8	Contributions by S. N. Bose, M. N. Saha, C. V. Raman and S. Chandrasekhar.	Lecture	CO2
9	Emergence of modern physics and technology - Semiconductor revolution - nanotechnology.	Lecture/PPT	CO2
10	Contemporary worldview - the expanding universe – fundamental particles and the unification of all forces of nature.	Lecture	CO2
11	Physics, and its relation to other branches of Science. Hypotheses; theories and	Group Activity	CO2
12	Laws in science- verification (proving),	Lecture	CO 3
13	corroboration and falsification (disproving), Revision of scientific theories and laws Significance of Peer Review. Publications and patents.	Lecture	CO 3
MODULE II			
14	Measurement of time – water clocks	Lecture	CO 4
15	sun dials-Discussion pendulum clocks – digital clocks – atomic clocks.	Lecture	CO 4
16	Length measurement – rulers – standard metre – micrometers – screw Gauges	Lecture / Group Activity	CO 4
17	Travelling microscope – laser range finder- sonar – GPS.	Lecture	CO 4
18	mass energy relation and Problem solving and revision	Lecture	CO 4
19	Propagation of errors	Lecture, ppt	CO 3
20	uncertainties of measurement	Lecture	CO 4
21	importance of estimating errors	Lecture, discussion	CO 4
22	dominant errors	Lecture	CO 3
23	random errors	Lecture	CO 4
24	systematic errors	Lecture, ppt	CO 3
25	rejection of spurious measurements	Lecture	CO 4
26	Estimating and reporting errors	Lecture	CO 1
27	errors with reading scales	Lecture, ppt	CO 4
28	errors of digital instruments	Lecture	CO 1
29	Basic ideas - number of significant digits –	Lecture	CO 4
30	absolute and relative errors --	Lecture, discussion	CO 2

31	standard deviation	Lecture	CO 2
32	error bars and graphical representation.	Lecture	CO 4
33	sum and differences	Lecture, problem solving	CO 3
34	products and quotients	Lecture	CO 4
35	multiplying by constants – powers	Lecture, problem solving	CO 3
36	Calibration need for calibration -methods of calibration.	Lecture, ppt	CO 4

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	20/8/2018	History of Clocks	CO 1
2	20/9/2018	Development of science :Contribution of scientists	CO2

GROUP ASSIGNMENTS– DETAILS & GUIDELINES

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc.)	Course Outcome
1	By October	Scientific methods related problem solving (Group Discussion)	CO 3

REFERENCES

- Gieryn, T.F. Cultural Boundaries of Science., Univ. Chicago Press, 1999.
- Collins H. and T. Pinch. The Golem: What Everyone Should Know About Science.,CambridgeUniv Press, 1993.
- Hewitt, Paul G, Suzanne Lyons, John A. Suchocki& Jennifer Yeh, Conceptual Integrated Science, Addison-Wesley, 2007
- Newton RG. The Truth of Science : New Delhi, 2nd edition
- Bass, Joel, E and et.al. Methods for Teaching Science as Inquiry, Allyn & Bacon,2009
- <http://www.howstuffworks.com/>
- John R. Taylor. An Introduction to Error Analysis: The Study of Uncertainties in Physical Measurements, Univ. Science Books

COURSE PLAN (COURSE 8)

PROGRAMME	COMPLEMENTARY CHEMISTRY FOR BACHELOR OF SCIENCE IN PHYSICS	SEMESTER	1
COURSE CODE AND TITLE	15U1PCHE1: GENERAL CHEMISTRY	CREDIT	2
HOURS/WEEK	2	HOURS/SEM	36
FACULTY NAME	DR. RAMAKRISHNAN S AND DR. RAGI A S		
	COURSE OUTCOMES	PO/ PSO	CL
CO 1	Describe different models of atomic structure.	PO 1, PSO 1	U
CO 2	Define acids and bases and explain the concept of equilibrium.	PO 2, PSO 3	U
CO 3	Understand the concept of solubility and its applications in various fields.	PO 3, PSO 1	U
CO 4	Explain the fundamentals of nuclear chemistry.	PO 4 and PO 5, PSO 1, PSO 2	U
CO 5	Generate a basic idea on applications of nuclear energy in various fields and the possible hazards.	PO 6, PSO 1	U
CO 6	Explain the fundamentals of analytical chemistry.	PO 5, PSO 4	U
CO 7	Understand the basics of thermodynamics.	PO 1, PSO 1	U

CL* Cognitive Level

CO - PO/PSO Mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3						3				
CO2		3							3		
CO3			1				3				
CO4				2	3		3	3			
CO5						3	2				
CO6					2					2	
CO7	2						2				

Mapping Strength: 0-No mapping 1-Low 2-Medium 3-High

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	COURSE OUTCOME
MODULE I : Atomic Structure : Dr. Ramakrishnan S (9h)				
1	Introduction: Atoms, Planck's quantum Theory, Photoelectric effect	Chalk & Board	video	CO 1
2	Postulates of bohr's theory, Energy levels in atom	Chalk & Board		CO 1
3	origin of hydrogen spectrum	Chalk & Board		CO 1
4	Sommerfeld's extension of Bohr's Theory	Chalk & Board		CO 1
5	Shortcomings of Bohr Theory	Chalk & Board		CO 1
6	Dual nature of matter and radiation. Derivation of de Broglie equation	Chalk & Board		CO 1
7	Wave nature of electron and quantisation of angular momentum, Heisenberg's uncertainty principle	Chalk & Board		CO 1
8	Concept of orbital, Quantum numbers, shapes of orbitals	Chalk & Board		CO 1
9	Electronic configuration of atoms - Aufbau principle, Hund's rule of maximum multiplicity, Pauli's exclusion principle	Chalk & Board		CO 1
MODULE II: Concept of Equilibrium: Dr. Ramakrishnan S (8h)				
10	Acids and bases	Chalk & Board		CO 2
11	Theories of acids and bases	Chalk & Board		CO 2
12	Ionic product of water, introductory idea of pH, pOH.	Chalk & Board	quiz	CO 2
13	Strengths of acids and bases, Ka and Kb, pKa and pKb	Chalk & Board		CO 2
14	Buffer solution, Henderson equation	Chalk & Board		CO 2
15	Hydrolysis of salt, solubility	Chalk & Board		CO 2
16	Solubility product, application	Chalk & Board		CO 3
17	Common ion effect, application.	Chalk & Board		CO 3
MODULE III: Nuclear Chemistry : Dr.Ragi A.S (6h)				
18	Stability of Nucleus	Chalk & Board		CO 4

19	Natural radioactivity, induced radioactivity	Chalk & Board	quiz	CO 4
20	Fertile and fissile isotopes, units of radioactivity.	Chalk & Board		CO 4
21	Nuclear Reactions: fission and fusion, chain reactions	Chalk & Board		CO 4
22	Disposal of nuclear wastes	Chalk & Board		CO 5
23	Applications of radioactivity	Chalk & Board		CO 5
MODULE IV: Analytical Chemistry- Basic Principles: Dr.Ragi A.S (5h)				
24	Concentration terms- molality, molarity, normality, weight percentage, ppm, and millimoles.	Chalk & Board		CO 6
25	Titrimetric method of analysis: General principle, types of titrations, requirements for titrimetric analysis.	Chalk & Board		CO 6
26	Primary and secondary standards, criteria for primary standards	Chalk & Board		CO 6
27	Preparation of standard solutions, standardization of solutions	Chalk & Board		CO 7
28	Problems	Chalk & Board	Quiz	CO 7
MODULE V: Laws of Thermodynamics : Dr.Ragi A.S (8h)				
29	System and Surrounding and First Law of Thermodynamics	Chalk & Board		CO 7
30	Second law of Thermodynamics: free energy, Entropy and Spontaneity, Statement of second law based on entropy	Chalk & Board		CO 7
31	Entropy change in Phase transitions	Chalk & Board		CO 7
32	entropy of fusion, entropy of vaporization, entropy of sublimation	Chalk & Board		CO 7
33	The concept of Gibbs's free energy- Physical significance of free energy, conditions for equilibrium & spontaneity based on ΔG values.	Chalk & Board		CO 7
34	Effect of temperature on spontaneity of Reaction.	Chalk & Board		CO 7
35	Third law of thermodynamics	Chalk & Board		CO 7
36	Problems based on Laws of Thermodynamics	Chalk & Board	Quiz	CO 7

INDIVIDUAL ASSIGNMENTS/SEMINAR – DETAILS & GUIDELINES

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or	Course Outcome
--	--------------------	---	----------------

		Non-graded etc)	
1	04/08/2018	Applications of solubility product	CO 3
2	28/10/2018	Effect of temperature on spontaneity of Reaction.	CO 7

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	02/10/2018	Concentration terms	CO 6

REFERENCES

- P. L. Soni, Inorganic Chemistry.
- C. N. R. Rao, University General Chemistry, Macmillan.
- R. A. Day Junior, A.L. Underwood, Quantitative Analysis, 5th edn. Prentice Hall of India Pvt. Ltd. New Delhi, 1988.
- R. Gopalan, Analytical Chemistry, S. Chand and Co., New Delhi.
- B. R. Puri, L. R. Sharma, M.S. Pathania, Elements of Physical Chemistry, 3rd edn. Vishal Pub. CO., 2008.
- B. R. Puri, L. R. Sharma, Kalia, Principles of Inorganic Chemistry, 31st edn. Milstone (2010).
- ManasChanda, Atomic Structure and Molecular Spectroscopy.
- 7. Vogel's Text Book of Quantitative Chemical Analysis, J. Mendham, R. C. Denney, J.D. Barnes, M. Thomas, 6th edn. Pearson Education (2003).

COURSE 9

PROGRAMME	BSC. MATHEMATICS	SEMESTER	1
COURSE CODE AND TITLE	15U1CPMAT01: DIFFERENTIAL CALCULUS AND TRIGONOMETRY	CREDIT	3
HOURS/WEEK	4	HOURS/SEM	60
FACULTY NAME	SANIL JOSE		

	COURSE OUTCOMES	PO/ PSO	CL
CO 1	Understand limits, derivatives of a functions and its applications.	PO1, PSO2	U
CO 2	Determine whether a given function is increasing or decreasing.	PO1, PSO2	A
CO 3	Apply the concepts of maxima and minima of a function to real world problems	PO1, PSO2	U
CO 4	Understand the concepts of derivative of functions of more than one variable	PO1/ PSO2	Ap
CO 5	Understand the concepts of Trigonometric functions, their properties and summation of trigonometric series	PO1, PSO2	U

CL* Cognitive Level

CO - PO/PSO Mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3							3			
CO2	3							3			
CO3	3							2			
CO4	3							2			
CO5	3							3			

Mapping Strength: 0-No mapping 1-Low 2-Medium 3-High

Sessions	Topic	LEARNING RESOURCES	VALUE ADDITION S	COURSE OUTCOME
1	Introductory Session	Lecture		CO 1
2	Rates of change and limits	Lecture		CO 1
3	Calculating limits using the limit laws	Lecture, Problem Solving		CO 1
4	Calculating limits using the limit laws	Lecture, Problem Solving		CO 1
5	The precise definition of a limit	Lecture,		CO 1
6	The precise definition of a limit	Lecture Problem Solving		CO 1

7	One sided limits and limits at infinity	Lecture, Problem Solving		CO 1
8	Derivative of a function	Lecture, Problem Solving		CO 1
9	Derivative of a function	Lecture, Problem Solving		CO 1
10	Differentiation rules	Lecture, Problem Solving		CO 1
11	Differentiation rules	Lecture, Problem Solving		CO 1
12	The derivative as a rate of change	Lecture		CO 1
13	The derivative as a rate of change	Lecture, Problem Solving		CO 1
14	Derivatives of trigonometric functions	Lecture, Problem Solving		CO 1
15	The chain rule and parametric equations	Lecture, Problem Solving		CO 1
16	The chain rule and parametric equations	Lecture, Problem Solving		CO 1
17	Implicit Differentiation.	Lecture, Problem Solving		CO 1
18	Implicit Differentiation.	Lecture, Problem Solving		CO 1
19	Test			
20	Extreme values of functions	Lecture, Problem Solving		CO 2
21	Extreme values of functions	Lecture, Problem Solving		CO2
22	The Mean Value Theorem	Lecture, Problem Solving		CO 3
23	The Mean Value Theorem	Lecture, Problem Solving		CO 3
24	Monotonic functions	Lecture, Problem Solving		CO 2
25	Monotonic functions	Lecture, Problem Solving		CO2

26	First derivative test.	Lecture, Problem Solving		CO 2
27	First derivative test.	Lecture, Problem Solving		CO2
28	First derivative test.	Lecture, Problem Solving		CO 2
29	Test			CO2
30	Functions of several variables	Lecture, Problem Solving		CO 4
31	Partial derivatives	Lecture, Problem Solving		CO 4
32	Partial derivatives	Lecture, Problem Solving		CO 4
33	Partial derivatives	Lecture, Problem Solving		CO 4
34	Partial derivatives	Introduction		CO 4
35	The Chain Rule	Lecture, Problem Solving		CO 4
36	The Chain Rule	Lecture, Problem Solving		CO 4
37	The Chain Rule	Lecture, Problem Solving		CO 4
38	The Chain Rule	Lecture, Problem Solving		CO 4
39	Test			CO 4
40	Expansions of $\sin n\theta$	Lecture, Problem Solving		CO 5
41	Expansions of $\cos n\theta$,	Lecture, Problem Solving		CO 5
42	Expansions of $\tan n\theta$	Lecture, Problem Solving		CO 5
43	Expansions of $\sin^n \theta$	Lecture, Problem Solving		CO 5
44	Expansions of $\cos^n \theta$,	Lecture, Problem Solving		CO 5
45	Expansions of $\sin^n \theta \cos^m \theta$	Lecture, Problem Solving		CO 5
46	Circular and hyperbolic functions	Lecture, Problem Solving		CO 5
47	Circular and hyperbolic functions	Lecture, Problem Solving		CO 5
48	Inverse circular and hyperbolic function	Lecture, Problem Solving		CO 5

49	Inverse circular and hyperbolic function	Lecture, Problem Solving		CO 5
50	Inverse circular and hyperbolic function	Lecture, Problem Solving		CO 5
51	Separation into real and imaginary parts	Lecture, Problem Solving		CO 5
52	Separation into real and imaginary parts	Lecture, Problem Solving		CO 5
53	Separation into real and imaginary parts	Lecture, Problem Solving		CO 5
54	Summation of infinite series based on $C + i$ method	Lecture, Problem Solving		CO 5
55	Summation of infinite series based on $C + i$ method	Lecture, Problem Solving		CO 5
56	Summation of infinite series based on $C + i$ method	Lecture, Problem Solving		CO 5
57	Summation of infinite series based on $C + i$ method	Lecture, Problem Solving		CO 5
58	Summation of infinite series based on $C + i$ method	Lecture, Problem Solving		CO 5
59	Application	Lecture, Problem Solving		CO 5
59	Revision	Lecture, Problem Solving		CO 5
60	Revision	Lecture, Problem Solving		

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	By October	PROBLEMS IN DIFFERENTIATION	CO 1, CO 2
2		PROBLEMS IN TRIGONOMETRY	CO 4

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	By October	PROBLEMS IN PARTIAL DIFFERENTIAL EQUATIONS	CO 3
2			

TEXT BOOKS: -

- George B. Thomas, Jr: Thomas' Calculus Eleventh Edition, Pearson, 2008.
- S.L. Loney – Plane Trigonometry Part – II, AITBS Publishers India, 2009.

REFERENCE BOOKS:

- Shanti Narayan : Differential Calculus (S Chand)
- George B. Thomas Jr. and Ross L. Finney : Calculus, LPE, Ninth edition, Pearson Education.
- S.S. Sastry, Engineering Mathematics, Volume 1, 4 th Edition PHI.
- Muray R Spiegel, Advanced Calculus, Schaum's Outline series.