SACRED HEART COLLEGE (AUTONOMOUS)

Department of Computer Science

BSC COMPUTER APPLICATIONS (Triple Main)

Course plan

Academic Year 2016 - 17

Semester 1

COURSE STRUCTURE

Course Code	Title of The Course	No. Hrs./Week	Credits	Total Hrs./Sem
15U1CCENG1	Communication Skills	5	4	90
15U1CRCAP01	Fundamentals of Digital System	4	3	72
15U1CRCAP02	Programming in 'C'	4	3	72
15U1PRCAP1	Programming in 'C' (Lab)	4	2	72
15U1CRCMT1	Foundation of Mathematics	4	3	72
15U1CRCST1	Descriptive Statistics	4	3	72

COURSE PLAN (15U1CCENG1: COMMUNICATION SKILLS IN ENGLISH)

PROGRAMME	**BSC COMPUTER APPLICATIONS(TRIPLE MAIN)**	**SEMESTER**	**1**
COURSE CODE AND TITLE	**15U1CCENG1: COMMUNICATION SKILLS IN ENGLISH**	**CREDIT**	**4**
HOURS/WEEK	**5**	**HOURS/SEM**	**90**
FACULTY NAME	**GREESHMA BALACHANDRAN**		

COURSE OBJECTIVES
To understand the mechanics of English language and comprehend the plain meaning of simple narrations, announcements and instructions.
Make inferences about the implications of statements from stress and tone recognise the various registers of speech
Listen to formal presentations and prepare lecture notes using the appropriate format.
Use English language for a variety of speaking contexts including conversations, presentations, speeches, discussions and negotiations
Critically evaluate presentations, narrations, speeches and analyse and evaluate their content and respond to them appropriately
Creatively respond to one's surroundings in the form of dramatic works, poetry, narrations, and songs, and perform them before an audience.
To understand the mechanics of English language and comprehend the plain meaning of simple narrations, announcements and instructions

Sessions	Topic	Method	Remarks
1 – 3	Introduction to Communication Skills	Lecture	
4 – 6	Phonetics: Introduction	PPT presentation	
7 – 9	Unit 1 – Write as you speak	Audio presentation & Exercises	
10 – 12	Unit 2 – Dip in Deep Sea	Audio presentation & Exercises	
13 – 15	Unit 3 – Many Mad Men	Audio presentation & Exercises	
16 – 18	Unit 4 – A Cot Caught in a Cart	Audio presentation & Exercises	
19 – 21	Unit 5 – Look for Good Food	Audio presentation & Exercises	
22 – 24	Unit 6 – Bad Luck, Early Worm and Unit	Audio presentation & Exercises	
25 – 27	Unit 7 - Again and Again	Audio presentation & Exercises	
28 – 30	Unit 8 – A China Clay Toy	Audio presentation & Exercises	
31 – 33	Unit 9 – Holy Cow	Audio presentation & Exercises	
34 – 36	Unit 10 – Here, There, Everywhere	Audio presentation & Exercises	
	CIA I		
37- 39	Discussion on the test paper	Discussion	
40 – 42	Unit 11 – Bzzing Bees & Hissing Snakes Unit 12 – Pleasure Ships on the sea	Audio presentation & Exercises	
43 – 45	Unit 13 – A Fine Vine Unit 14 – Thanks Brother!	Audio presentation & Exercises	
46 – 48	Unit 15 – Jane's Chain Unit 16 – A Smiling King	Audio presentation & Exercises	
49 – 51	Unit 17 – Betty's Bitter Butter	Audio presentation & Exercises	

	Unit 18 – Have Your Way		
52 - 54	Unit 19 – Right Road, Light Road Revision	Audio presentation & Exercises Drill Exercises	
55 – 57	Revision Exercises	Drill Exercises	
58 – 60	Unit 20 - Pronunciation: Syllables	Lecture Session	
61 – 63	Unit 21 - Word stress 1	Audio presentation & Exercises	
64 – 66	Unit 22 - Word stress 2	Audio presentation & Exercises	
67 – 69	Unit 22 - Stress and Parts of Speech	Audio presentation & Exercises	
70 – 72	Unit 23 - Sentence Stress	Audio presentation & Exercises	
73 – 75	Holiday – SreeNarayana guru samadhi		
76 – 78	Holiday - Bakrid		
	CIA II		
79 - 81	Performance Analysis _ IAT 2	Discussion	
82 – 84	Unit 24 – Weak forms & Strong Forms Unit 25 – Contracted forms	Audio presentation & Exercises	
86 – 88	Unit 26 – Intonation	Audio presentation & Exercises	
89	Unit 27 – Different accents	Lecture and Drill	
90	Influence of Mother tongue	Lecture and Drill	

ASSIGNMENTS

	Topic of Assignment & Nature of assignment (Individual/ Group – Written/ Presentation – Graded or Non-graded etc)
1	Write a note on your bus trip the college & present it before the class.
2	Write a descriptive note on the sights and sounds of the college canteen + presentation before the class
3	Write an interesting conversation you listened to recently and present it before the class with your partner.
4	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
5	Write a description of the Lakeview ground
6	Describe the college auditorium
7	Describe the sights and sounds in the portico of the college on any given day
8	Describe the aquarium in the portico
9	Narrate your experiences of any day on the campus

REFERENCE

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 PLAN (15U1CRCAP01: FUNDAMENTALS OF DIGITAL SYSTEM)

PROGRAMME	**BSC COMPUTER APPLICATIONS (TRIPLE MAIN)**	**SEMESTER**	**1**
COURSE CODE AND TITLE	**15U1CRCAP01: FUNDAMENTALS OF DIGITAL SYSTEM**	**CREDIT**	**3**
HOURS/WEEK	**4**	**HOURS/SEM**	**72**
FACULTY NAME	**JISHA SOMAN**		

COURSE OBJECTIVES
Discuss about fundamentals of computer, internet and operating system
To understand number system and perform arithmetic operations
Design and implement logic gates
Implementing Boolean expression using Boolean algebra
Analyze and design combinational and sequential circuit

SESSION	**TOPIC**	**LEARNING RESOURCES**	**VALUE ADDITIONS**	**REMARKS**
MODULE I				
1	Introduction to Computer	PPT	video	
2	History	PPT/Lecture		
3	Generation of computers	PPT/Lecture		
4	functional units	PPT/Lecture		
5	Hardware: CPU, Primary and Secondary storage	PPT/Lecture	e-resource	
6	Input devices	PPT/Lecture	e-resource	
7	Output devices	PPT/Lecture	e-resource	
8	Software: System and Application	PPT/Lecture	Q & Ans Session	

9	Programming Languages: Machine Language, Assembly Language, High Level Language	Lecture	Q & Ans Session	
10	A Brief Introduction to the Internet: The World Wide Web, Web Browsers	Lecture	quiz	
11	Web Servers, Uniform Resource Locators	Lecture	quiz	
12	protocols: Multipurpose Internet Mail Extensions, The Hypertext Transfer Protocol	Lecture		
13	Introduction to Operating System: definition	Lecture		
14	Functions of OS	PPT/Lecture		
15	CUI and GUI	PPT/Lecture		
16	Types of OS, Multiprogramming	PPT/Lecture		
17	Multiprocessing with its adv and disadvantage	PPT/Lecture		
18	Timesharing and Distributed OS	PPT/Lecture		
19	Real time and Online	PPT/Lecture		
20	Revision			
MODULE II				
21	**Number Systems:** Base of a number system, Positional number system, Popular number systems	Lecture		
22	Conversion-Decimal to Binary, Binary to Decimal	Lecture		
23	Decimal to Octal, Octal to decimal and binary	Lecture		
24	Decimal to hexadecimal, Hexadecimal to decimal, Binary and octal,	Lecture		
25	Concept of binary addition	Lecture		
26	Binary subtraction			
CIA -I				

27	Complements in binary number systems,1^{s} Complement, 2^{s} Complement and their applications,	Lecture		
28	Subtraction using 1's compliment	Lecture		
29	Subtraction using 2's compliment	Lecture		
30	BCD numbers- concept and addition	PPT/Lecture		
31	Concept of parity bit	Lecture		
32	revision			
	MODULE III			
33	**Logic gates**-Introduction	PPT/Lecture		
34	AND, OR, NOT, NAND and NOR	PPT/Lecture		
35	Truth tables and graphical representation	PPT/Lecture		
36	Basic laws of Boolean Algebra,	PPT/Lecture		
37	Simplification of Expressions,	PPT/Lecture		
38	De Morgan's theorems, Dual expressions	Lecture		
39	Simplify using Demorgan's theorm	Lecture		
40	Universal gates	Lecture		
41	Canonical expressions, Min terms and Max terms, SOP and POS expressions	PPT/Lecture		
42	Conversion of SOP and POS to standard form	Lecture		
43	Simplification of expression using K-MAP	PPT/Lecture		
44	Representation of simplified expressions using NAND/NOR Gates	PPT/Lecture		
45	XOR and its applications	Lecture		
46	Don't care conditions	PPT/Lecture		
47	Odd parity bit generator and checker	Lecture		

48	Even parity bit generator and checker	Lecture		
49	revision			
MODULE IV				
50	**Flip flops**- Latch, Clocked	PPT/Lecture		
51	RS, JK flip flop	PPT/Lecture		
52	T, D and Master slave	PPT/Lecture		
53	Triggering of flip flops	PPT/Lecture	Video	
54	Counters - Synchronous and asynchronous	PPT/Lecture		
55	BCD, Ripple counters	PPT/Lecture		
56	Half adder	Lecture		
57	Full adder(circuit diagram)	Lecture		
58	Subtractors	Lecture		
59	Encoders	PPT/Lecture		
60	Decoders	PPT/Lecture		
61	Multiplexers	PPT/Lecture		
62	De-multiplexers	PPT/Lecture		
63	Analog to digital and digital to analog converters	PPT/Lecture		
CIA - II				
MODULE V				
64	Concept of Registers	Lecture		
65	Shift Registers	Lecture		
66	Flip-flops as building blocks of memory	Lecture		
67	RAM, ROM and Cache Memory	PPT/Lecture	Group discussion	

68	Revision			
69	Revision			
70	Revision			
71	Revision			
72	Evaluation of the course			

INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	6/10/2016	Subtraction using 1's and 2's Compliment (Written)
2	10/09/2016	Simplification using K-Map (Written)

GROUP ASSIGNMENTS/ACTIVITES – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/ Group – Written/Presentation – Graded or Non-graded etc)
1	12/9/2016	Flipflops and registers (Group Discussion)

REFERENCES:

1. Mano M.M-2016-Digital Logic and Computer design/Computer Architecture 1ST Edition-Pearson

2. Thomas C Bartee- 1991-Digital computer Fundamentals Sixth Edition- Tata McGraw-Hill Education

3. Floyd-2006- Digital Electronics- Pearson/Prentice Hall

Web resource references:

https://www.javatpoint.com/conversion-of-number-system-in-digital-electronics

https://www.tutorialspoint.com/computer_logical_organization/combinational_circuits.htm

COURSE PLAN (15U1CRCAP02: PROGRAMMING IN C)

PROGRAMME	**BSC COMPUTER APPLICATIONS (TRIPLE MAIN)**	**SEMESTER**	**1**
COURSE CODE AND TITLE	**15U1CRCAP02: PROGRAMMING IN C**	**CREDITS**	**3**
HOURS/WEEK	**4**	**HOURS/SEM**	**72**
FACULTY NAME	**ACHAMMA CHERIAN**		

COURSE OBJECTIVES
Solve problems and Produce algorithms, pseudocodes and flowcharts for it.
To understand the basic concepts of c program and different types of data.
Apply different Decision Making statements and loops
Implement functions

SESSION	**TOPIC**	**LEARNING RESOURCES**	**VALUE ADDITIONS**	**REMARKS**
MODULE 1				
1.	Introduction			
2.	Syllabus Discussion			
3.	Problem Definition, Problem Solving	Lecture		
4.	Logic developments tools - Algorithm	Lecture		
5.	Flowcharts	Lecture		
6.	pseudo code	Lecture		
7.	Modular programming	Lecture		
8.	Structured and object oriented	Lecture		
9.	Top down and bottom up approaches	Lecture		

10.	features of a good computer program	Lecture		
MODULE 2				
11.	**C language basics:** C character set,	Lecture		
12.	Identifiers and keywords	Lecture		
13.	Enumeration type, constants	Lecture		
14.	variables, declarations	Lecture		
15.	qualifiers – long, short and unsigned declarations, expressions, symbolic constants	Library		
16.	input/output functions	Lecture		
17.	compound statements	Lecture		
18.	arithmetic operators, unary operators, relational and logical operators,	Lecture		
19.	assignment operators, increment and decrement operators	Lecture		
20.	Precedence and order of evaluation, conditional operators	Lecture		
21.	bit operators, type casting	Lecture		
22.	using library functions in math.h			
MODULE 3				
23.	**Control flow:** If statements	Lecture		
24.	Different forms of if and its syntax	PPT/Lecture		
25.	Uses of if statement	Programs		
26.	REVISION	Seminar		
27.	Doubt clearens	Discussion		
28.	**CIA – I**			
29.	Answer Discussion	Discussion		
30.	switch statements	PPT/Lecture		

31.	looping – for loop statement	PPT/Lecture		
32.	while loop statement	PPT/Lecture		
33.	do … while statements	PPT/Lecture		
34.	nested loop structure	PPT/Lecture		
35.	Break statement	PPT/Lecture		
36.	continue statement	PPT/Lecture		
37.	go to statement			
38.	**Arrays & Strings:** Single dimensional arrays	Lecture		
39.	multidimensional arrays	Lecture		
40.	initializing array using static declaration	Lecture		
41.	Searching & Sorting of Arrays	Lecture	Demo video	
42.	Array of Characters, Character arrays and strings	Lecture		
43.	String manipulation programs	Lecture		
44.	String handling Functions.	Lecture		
MODULE 4				
45.	**User Defined Functions:** Function declaration, definition & scope	Lecture		
46.	Recursion	Lecture		
47.	Arrays and functions	Lecture		
48.	call by value, call by reference	Lecture		
49.	Revision	Seminar		
50.	Revision	Seminar		
51.	Storage Classes: automatic, external (global), static & registers	Lecture		
52.	Storage Classes: Examples	Lecture		

53.	**Structures:** Definition of Structures, declaration	Lecture		
54.	structure passing to functions, array of structures	Lecture		
55.	arrays with in structures	Lecture		
56.	Revision	Seminar		
57.	Revision	Seminar		
58.	Doubt Clearens	Discussion		
59.	CIA – II			
60.	Answer Discussion	Discussion		
61.	Unions	Lecture		
62.	typedef statements.	Lecture		
	MODULE 5			
63.	**Pointers:** Pointer Definition, pointer arithmetic	Lecture		
64.	array & pointer relationship	Lecture		
65.	pointer to array, pointer to structure	Lecture		
66.	**Files:**Types of C preprocessor directives	Lecture		
67.	Introduction to files, fopen(), fscanf(), fprintf(),getc(), putc(), fclose(),	Lecture		
68.	Simple file handling programs	Lecture		
69.	Previous Question Paper Discussion	Discussion		
70.	Previous Question Paper Discussion	Discussion		
71.	Doubt clearens	Discussion		
72.	Evaluation about the course	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	6/7/16	Program Techniques & Looping Concepts
2	10/8/16	Functions & its Categories
3	10/9/16	Programs using file

REFERENCES:

- *Programming in ANSI C 4E , E. BalaGuruswamy, TMH*
- *Programming in C, Byron S Gottfried, Shum's Outline series. TMH*
- *Computer Fundamentals By P K Sinha&PritiSinha Fourth Edition.*
- *B. Kernighan and D. Ritchie, "The ANSI C Programming Language", PHI*

COURSE PLAN (15U1CRCMT01: FOUNDATION OF MATHEMATICS)

PROGRAMME	**BSc COMPUTER APPLICATIONS(TRIPLE MAIN)**	**SEMESTER**	**1**
COURSE CODE AND TITLE	**15U1CRCMT01: FOUNDATION OF MATHEMATICS**	**CREDIT**	**3**
HOURS/WEEK	**4**	**HOURS/SEM**	**72**
FACULTY NAME	**ANEESHA S/RENSI K RANJITH**		

COURSE OBJECTIVES
To understand the concepts and prove statements about sets and functions
To understand relations, its properties, represention, equivalence relations and partial ordering
To understand and apply concepts of Prepositional logic, Predicates and Quantifiers
Familiarize mathematical Symbols and standard methods of proofs.
To understand the basic concepts of Number theory

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	REMARKS
MODULE I				
1	Set Theory Introduction	Lecture		
2	Basic Operations on Sets	Lecture		
3	Set Identities	Lecture		
4	Computer Representation of sets	Lecture		
5	Functions	Lecture		
6	Algebraic operations on real Functions	Lecture		
7	Composition of Functions	Lecture		
8	Bijective Functionss	Lecture		
9	Inverse Functions	Lecture		
10	Graphs of functions	Lecture		
11	Increasing and Decreasing functions	Lecture		
12	Sequences	Lecture		
13	Summations	Lecture		
14	Cardinality	Lecture		
MODULE II				
15	Relations Introduction	Lecture		
16	Types of Relations on a Set	Lecture		
17	Combinations of Relations	Lecture		
18	Representation of relations on Finite Sets	Lecture		
19	Representating relations using Digraphs	Lecture		

20	n-ary relations and their applications	Lecture		
21	operations on n-ary relations	Lecture		
22	Equivalence Relations	Lecture		
23	Partitions	Lecture		
24	Partial Oderings	Lecture		
25	Hasse Diagrams	Lecture		
26	**CIA-1**			
27	Covering Relation	Lecture		
28	Maximal and Minimal elements	Lecture		
29	Lattices	Lecture		
30	Toplogical Sorting	Lecture		
MODULE III				
31	Mathematical Logic Introduction	Lecture		
32	Propositions -simple and compound	Lecture		
33	Logical operators	Lecture		
34	Conditional, Biconditional Statements	Lecture		
35	Precedence of Logical Operators	Lecture		
36	Logic and Bit operations	Lecture		
37	Tautologies and contradictions	Lecture		
38	Logical Equivalences - Laws of logic	Lecture		
39	Predicates, Quantifiers	Lecture		
40	Universal Quantifiers, Existential Quantifiers,Binding Variables	Lecture		
41	Logical Equivalence involving quantifiers	Lecture		
42	Negation of quantified expressions	Lecture		
43	Nested Quantifiers	Lecture		
44	Arguments	Lecture		
45	Rules of Inference for propositions	Lecture		
46	Rules of Inference for quantified statements	Lecture		
47	Methods of proving theorems	Lecture		
MODULE IV				
48	Theory of Numbers - Divisibility	Lecture		
49	Prime and Composite Numbers	Lecture		
50	GCD, Theorems on division	Lecture		
51	Divisors of a given number	Lecture		
52	Euler's Function	Lecture		
53	Congruences -Theorems	Lecture		
54	Fermat's theorem	Lecture		
CIA - II				
55	Wilson's theorem	Lecture		
56	Lagrange's theorem	Lecture		
57 - 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	6/10/2016	Problems on set identities, bijective functions, inverse functions (Written)
2	10/09/2016	Problems on Equivalence relations, partial orderings, Hasse diagram, Lattice (Written)
3	28/08/2016	Problems on propositions, predicates, quantifiers, rule of inference, methods of proving theorems (Written)
4	15/08/2016	Problems on congruences, fermat theorem, wilson theorem, Lagrange's theorem (Written)

REFERENCES

1. *K.H. Rosen: Discrete Mathematics and its Applications (Sixth edition), Tata McGraw Hill Publishing Company, New Delhi.*
2. *S. Bernard and J.M Child: Higher Algebra, AITBS Publishers, India,2009.*

COURSE PLAN (15U1CRCST1 : DESCRIPTIVE STATISTICS)

PROGRAMME	**BACHELOR OF COMPUTER APPLICATIONS**	**SEMESTER**	**1**
COURSE CODE AND TITLE	**15U1CRCST1 : DESCRIPTIVE STATISTICS**	**CREDIT**	**3**
HOURS/WEEK	**5**	**HOURS/SEM**	**60**
FACULTY NAME	**LAKSHMIPRIYA R**		

COURSE OBJECTIVES
To understand different measures of central tendency, their properties and different measures of positional averages.
To understand different measures of dispersions – absolute and realtive measures of dispersion.
To understand the concepts of Box plots and Lorenz curve
To understand the concepts moments – raw and central moments – inter relations
To understand the concepts of skewness and kurtosis, scatter diagram, curve fitting – method of least squares.
To understand and apply the concepts of fitting of straight line, second degree curve, exponential curve, power curve.
To understand different types of index numbers, tests to be satisfied by the index numbers, cost of living index numbers and their constructions.
To understand the concepts of time series data, determination of trend, computation of seasonal indices.

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	REMARKS
1	Bridge course	PPT	video	
2	Bridge course	PPT/Lecture		
3	Measures of central tendency	PPT/Lecture		
4	Mean	PPT/Lecture	e-resource	
5	median	PPT/Lecture		
6	Mode	PPT/Lecture		
7	Geometric mean and Harmonic mean, problems	Lecture		
8	Absolute and relative measures of dispersion	Lecture		
9	Range, Quartile Deviation	Lecture		
10	Mean Deviation	Lecture		
11	Standard Deviation	PPT/Lecture		
12	Standard Deviation	PPT/Lecture		
13	Properties, Problems	PPT/Lecture		
14	deciles, percentiles			
15	deciles, percentiles	PPT/Lecture		
16	Coefficient of Variation	Lecture		
17	Problems graphical method	Lecture		
18	Box plots	Lecture		
19	Box plots	Lecture		
20	Quantiles –quintiles	PPT/Lecture		
21	Lorenz Curve	PPT/Lecture		
22	Revision			
23	**CIA – I**			
24	Index numbers	Lecture		
25	Simple and Weighted index numbers	Lecture		
26	Laspeyre’s			
27	Paasche’s	Lecture		
28	Bowley’s	Lecture		
29	Fisher’s index numbers	PPT/Lecture		
30	Test for index numbers	PPT/Lecture		
31	Test for index numbers	PPT/Lecture		
32	Cost of living index numbers			
	Constructions of Cost of living index numbers			
33	Time series- Components of a time series data	PPT/Lecture		
34	Determination of trend- Moving average	PPT/Lecture		
35	curve fitting methods	PPT/Lecture		
36	Computation of and seasonal indices	Lecture	Quiz	
37	Method of simple averages	Lecture	Q & Ans Session	
38	Moments – Raw moments	PPT/Lecture		
39	Central moments	PPT/Lecture		
40	Absolute moments- Inter Relations	PPT/Lecture		

41	Skewness	PPT/Lecture		
42	Pearson, Bowley and Moment measure	Lecture		
43	Revision			
44	**CIA II**			
45	Kurtosis – Moment measure of kurtosis	PPT/Lecture		
46	Kurtosis – Moment measure of kurtosis	PPT/Lecture		
47	Scatter diagram	PPT/Lecture		
48	Curve fitting	PPT/Lecture		
49	Method of least squares	PPT/Lecture		
50	fitting of a straight line	PPT/Lecture		
51	second degree curve	PPT/Lecture		
52	exponential curve	PPT/Lecture	Video	
53	power curve	PPT/Lecture		
54	exponential curve	PPT/Lecture		
55	power curve	PPT/Lecture		
56	Time series- Components of a time series data	PPT/Lecture		
57	Determination of trend- Moving average & Curve fitting methods	PPT/Lecture		
58	Seasonal indices	PPT/Lecture		
59	Revision	PPT/Lecture		
60	Question paper detecting	PPT/Lecture		

ASSIGNMENTS

	Date of Completion	**Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)**
1	18/10/16	Introduction, Application of statistics in different fields – In Economics, Medical Field, Industries, In Business … (Written)
2	10/09/16	Practical Sheet -1- Measures of Central tendency and Measures of Dispersion (Written)
3	30/09/16	Practical Sheet -2- Skewness and Kurtosis (Written)
4	16/08/16	Practical Sheet -3 – Using Excel Sheet (Written)

GROUP ASSIGNMENTS/ACTIVITES – Details & Guidelines

	Date of completion	**Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)**
1	2/08/2016	Collection of data from medias such as Newspaper.
2	24/08/16	Preparation of PowerPoint presentation on various topics by the students

REFERENCES :

- *S.C. Gupta and V. K.Kapur.(2002) Fundamentals of Mathematical Statistics, 11th edition, Sultan Chand and sons New Delhi*

- *S.P. Gupta. Statistical Methods ,Sultan Chand & Sons Delhi*
- *Agarwal. Basic Statistics, New Age International (p) Ltd.*
- *S.C.Gupta and V.K.Kapoor.(2007) Fundamentals of Applied Statistics, Sultan Chand & Sons DelhiR.S.N. Pillai, Bagavathi(2010). STATISTICS- Theory and Practice, S.Chand publications.*
- *Miller, I. and Miller, M.(2014). Mathematical Statistics, 8th edition, Pearson Education Inc.*