गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर – 495009 (छ.ग.)

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Koni, Bilaspur – 495009 (C.G.)

List of Revised Courses

Department	: *Computer Science and Engineering*
Program Name	: *B.Tech.*

Academic Year : 2019-20

List of Revised Courses

Sr. No.	Course Code	Name of the Course
01.	CS04TPC07	System Software
02.	CS03TPC02	IT workshop (C++ /python)

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Minutes of Meetings (MoM) of Board of Studies (BoS)

Academic Year : 2019-20	
School	: *School of Studies of Engineering and Technology*
Department	: *Computer Science and Engineering*
Date and Time :	*May 30, 2019 – 11:30 AM*
Venue	: *E-Class Room*

The scheduled meeting of member of Board of Studies (BoS) of Department of Computer Science and Engineering , School of Studies of Engineering and Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur was held to design and discuss the B. Tech. 2nd Year scheme and syllabi.

The following members were present in the meeting:
1. Mr. Nishant Behar(HOD, Assitant Prof., Dept. of CSE.-cum Chairman, BOS)
2. Dr. Sanjay Kumar (External Member)
3. Mrs.Nishi Yadav (Member BoS, Assistant Professor, Dept. of CSE)
4. Dr.Soma Das (Invited Member)
5. Dr. Sandeep Singh (Invited Member)
6. Mr. Amit Baghel (Invited Member, Assistant Professor, Dept. of CSE)
7. Mrs. Raksha Pandey(Invited Member)
8. Dr. S. Kispotta(Invited Member)

Following points were discussed during the meeting
1. Syllabus revision for B. Tech for the session 2019-20
2. Modification of the credit and course code of B. Tech 2nd year, 2019-20
3. implementation of CBCS in 1st 2nd 3rd Year.

The committee discussed and approved the scheme and syllabi. The following courses were revised in the of B. Tech. Second year (Ist and IInd Semesters) :

❖ System Software (CS04TPC07)
❖ IT workshop (C++ /python) (CS03TPC02)

The following new courses were introduced in the of B. Tech.

❖ Cloud Computing (CS8TOE02)

❖ Wireless Sensor Network(CS7TPE02)

❖ Digital Image Processing(CS7TOE04)

❖ Introduction Of Computational Intelligence(CS8TPE02)

❖ Programming for Problem Solving(CS02TES02)

विभागाध्यक्ष
Head
संगणक विज्ञान एवं अभियांत्रिकी
Computer Science & Engg.
अभियांत्रिकी एवं प्रौ. अध्ययन शाला
SOS, Engg. & Technology
गु.घा. विश्वविद्यालय, बिलासपुर (छ.ग.)
G.G.Vishwavidyalaya, Bilaspur (C.G.)

Signature & Seal of HoD

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Scheme and Syllabus

SCHEME FOR EXAMINATION
B.TECH (FOUR YEAR) DEGREE COURSE
COMPUTER SCIENCE AND ENGINEERING
SCHOOL OF STUDIES IN ENGINEERING & TECHNOLOGY
GURU GHASIDAS VISHWAVIDYALAYA
SECOND YEAR, SEMESTER - III & IV
W.E.F. SESSION 2020-21

Branch:- Computer Science & Engg.　　　**Year: II**　　　**Sem:- III**

S.No	Code no.	Subject	Periods			Evaluation Scheme			Credits
			L	T	P	IA	ESE	Total	
1	CS03TES03	Computer Organization & Architecture	3	1	0	30	70	100	4
2	CS03TPC01	Digital logic & Design	3	1	0	30	70	100	4
3	CS03TPC02	IT workshop (C++ / python)	3	1	0	30	70	100	4
4	CS03TPC03	Computer Network	3	1	0	30	70	100	4
5	CS03TBS05	Mathematics III (Numerical Methods)	3	1	0	30	70	100	4
	PRACTICAL								
1	CS03PPC01	IT workshop (C++ / python) Lab	0	0	3	30	20	50	1.5
2	CS03PPC02	Digital Logic & Design Lab	0	0	3	30	20	50	1.5
3	CS03PES05	Computer Network Lab	0	0	3	30	20	50	1.5
					Total				24.5

Branch:- Computer Science & Engg.　　　**Year: II**　　　**Sem:- IV**

S.No	Code no.	Subject	Periods			Evaluation Scheme			Credits
			L	T	P	IA	ESE	Total	
1	CS04TPC04	Discrete Mathematics	3	1	0	30	70	100	4
2	CS04TES04	Electronic Device & Circuits	3	0	0	30	70	100	3
3	CS04TPC05	Operating System	3	1	0	30	70	100	4
4	CS04TPC06	Data Structure & Algorithms	3	1	0	30	70	100	4
5	CS04TPC07	System Software	3	1	0	30	70	100	4
	PRACTICAL								
1	CS04PPC03	Data Structure & Algorithms Lab	0	0	3	30	20	50	1.5
2	CS04PPC04	Operating System Lab	0	0	3	30	20	50	1.5
3	CS04PES06	Electronic Device & Circuits Lab	0	0	3	30	20	50	1.5
							Total		23.5

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SUBJECT CODE /NAME	L	T	P	Credit
CS04TPC07/ System Software	3	1	-	4

UNIT I

Machine architecture, CPU Machine Architecture, Simplified Instruction Computer(SIC),SIC/XE, Traditional CISC Machines, VAX Architecture, Pentium Pro Machine Architecture, RISC Architecture, instruction set, addressing modes, Type of addressing modes with example Programming review of syntax of C with emphasis on features like pointers, bit operations.

UNIT II

DOS: Introduction to interrupts, software interrupts, Hardware interrupt, internal structure of DOS, COM & EXE program's BIOS memory resident programs, Running batch files.

UNIT III

Assemblers, Types of Assembler, PASS-I Assembler, PASS-II Assembler, Cross assemblers, two assembler design data structure and algorithms.

UNIT IV

Macro processors: Definitions, nested macro definitions, macro expansion and conditional macro expansion.

UNIT V

Introduction of Linker, Loader, Types of Loader, loading and relocation, static and dynamic linking, Editors, Types of Editors, Debuggers, Programming environments.

Text Books & References :

1. System Software : An Introduction to Systems Programming, 3/e by Leland L. Beck, Pearson Education
2. Donovan J. J. "System Programming ", TMH
3. Dhamdhare D.M. " Introduction to system software's" ,TMH 1986

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SUBJECT CODE /NAME	L	T	P	Credit
CS03TPC02/ IT workshop (C++ /python)	3	1	0	4

Unit 1 : Abstract data types and programming environment.

TC++ Environment, variables, Compilation and Linking steps, functions and parameters Object identity, concept of Classes. arrays, control statements. C++ in different plate forms DOSBOX etc.

Unit 2 : Object-oriented programming

Programming using Class and objects, Encapsulation, Constructors, Destructors ,Copy constructor ,memory management operators.

Unit 3: Advance concepts of Object-oriented programming

Pointers, Polymorphism operator and function overloading, Inheritance in object oriented design, Brief concepts of Aggregation ,Generalization, Specification. Design concepts Flowchart , Decision table

Unit 4:File handling

Streaming and File input and output handling

Unit 5 : Introduction to Research tool

Introduction of Python Programming , applications of python for research ,Programming Environment, Data representation, Elementary Basic programming in python.

Text books & References:

1. Object Oriented Programming with C++ by E Balaguruswami, TMH
2. Object Oriented Programming with C++ by Robert Lafore, Waite Group
3. Introduction to python by Bill Luboveni by O'Relly
4. Object Oriented Programming with C++ by M P Bhave S,A. Patekar, Pearson Education
5. The Complete reference by Herbit Schildt,Mc Graw Hill
6. The C++ Programming Language,Bajanstroustrup ,Addition Wesley
7. C++ premier by F.B. Lippman, Addition Wesley
8. Machine Learning Tom M. Michell,Mc Graw Hill ,Indian addition
9. Applied Machine Learning by M. Gopal ,McGraw Hill Education