|| सा विद्या या विमुक्तये ||

स्वामी रामानंद तीर्थ मराठवाडा विद्यापीठ, नांदेड

'ज्ञानतीर्थ', विष्णुपुरी, नांदेड – ४३१ ६०६ (महाराष्ट्र राज्य) भारत

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED

'Dnyanteerth', Vishnupuri, Nanded - 431 606 (Maharashtra State) INDIA

स्वामी रामानंद तीर्थ
मराठवाडा विद्यापीठ, नांदेड   Established on 17th September, 1994, Recognized By the UGC U/s 2(f) and 12(B), NAAC Re-accredited with 'B++' grade

Fax : (02462) 215572	**Academic-1 (BOS) Section**	website: srtmun.ac.in
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विज्ञान व तंत्रज्ञान विद्याशाखे अंतर्गत राष्ट्रीय शैक्षणिक धोरण २०२० नुसार पदवी प्रथम वर्षाचे अभ्यासक्रम (Syllabus) शैक्षणिक वर्ष २०२४–२५ पासून लागू करण्याबाबत.

प रि प त्र क

या परिपत्रकान्वये सर्व संबंधितांना कळविण्यात येते की, या विद्यापीठा अंतर्गत येणा–या सर्व संलग्नित महाविद्यालयामध्ये शैक्षणिक वर्ष २०२४–२५ पासून पदवीस्तरावर राष्ट्रीय शैक्षणिक धोरण –२०२० लागू करण्याच्या दृष्टीकोनातून विज्ञान व तंत्रज्ञान विद्याशाखे अंतर्गत येणा–या अभ्यासमंडळांनी तयार केलेल्या पदवी प्रथम वर्षाचे अभ्यासक्रमांना मा. विद्यापरिषदेने दिनांक १५ मे २०२४ रोजी संपन्न झालेल्या बैठकीतील विषय क्रमांक १५/५९–२०२४ च्या ठरावाअन्वये मान्यता प्रदान केली आहे. त्यानुसार विज्ञान व तंत्रज्ञान विद्याशाखेतील खालील बी. एस्सी प्रथम वर्षाचे अभ्यासक्रम (Syllabus) लागू करण्यात येत आहेत.

1) B. Sc. I year – Computer Science
2) B. Sc. I year – Computer Application
3) B. Sc. I year – Information Technology
4) B. Sc. I year – Computer Maintainance
5) B. Sc. I year – Computer Science (Single Major)
6) B. Sc. I year - Computer Network Technology (Single Major)
7) B. Sc. I year - Software Engineering (Single Major)
8) B. Sc. I year - Information Technology (Single Major)
9) B. Sc. I year - Computer Management (Single Major

सदरील परिपत्रक व अभ्यासक्रम प्रस्तुत विद्यापीठाच्या **www.srtmun.ac.in** या संकेतस्थळावर उपलब्ध आहेत. तरी सदरील बाब ही सर्व संबंधितांच्या निदर्शनास आणून द्यावी, ही विनंती.

'ज्ञानतीर्थ' परिसर,
विष्णुपुरी, नांदेड – ४३१ ६०६.
जा.क्र.:शै–१ /एनइपी/विवत्रंविपदवी/२०२४–२५/९५४
दिनांक १६.०७.२०२४

डॉ. सरिता लोसरवार
सहा.कुलसचिव
शैक्षणिक (१–अभ्यासमंडळ) विभाग

प्रत : १) मा. आधिष्ठाता, विज्ञान व तंत्रज्ञान विद्याशाखा, प्रस्तुत विद्यापीठ.
२) मा. संचालक, परीक्षा व मुल्यमापन मंडळ, प्रस्तुत विद्यापीठ.
३) मा. प्राचार्य, सर्व संबंधित संलग्नित महाविद्यालये, प्रस्तुत विद्यापीठ.
४) मा. संचालक, सर्व संकुले परिसर व उपपरिसर, प्रस्तुत विद्यापीठ
५) मा. प्राचार्य, न्यू मॉडेल डिग्री कॉलेज हिंगोली.
६) सिस्टीम एक्सपर्ट, शैक्षणिक विभाग, प्रस्तुत विद्यापीठ. याना देवून कळविण्यात येते की, सदर परिपत्रक संकेतस्थळावर प्रसिध्द करण्यात यावे.

SWAMI RAMANAND TEERTH
MARATHWADA UNIVERSITY,
NANDED - 431 606 (MS)

स्वामी रामानंद तीर्थ
मराठवाडा विद्यापीठ, नांदेड

(Credit Framework and Structure of

B.Sc. Computer Science (Single Major)

First Year

with Multiple Entry and Exit Options as per NEP-2020)

UNDERGRADUATE PROGRAMME OF
SCIENCE & TECHNOLOGY

Major in **CSC** and Minor in **DSM** (Computer Science)

Under the Faculty of Science & Technology

Swami Ramanand Teerth Marathwada University, Nanded

Faculty of Science and Technology (Three Optional in the First Year)

Credit Framework for Four Year Multidisciplinary Degree Program with Multiple Entry and Exit

Subject: CSC (Major) /DSM (Minor 1 and Minor 2)

B.Sc. Computer Science (Single Major) First Year

Eligibility:12th Science

Year & Level	Semester	Optional 1 (Major) *(From the same Faculty)*	Optional 2 (Minor 1) *(From the same Faculty)*	Optional 3 (Minor 2) *(From the same Faculty)*	Generic Elective (GE) *(select from Basket 3 of Faculties other than Science and Technology)*	Vocational & Skill Enhancement Course	Ability Enhancement Course (AEC) (Basket 4) Value Education Courses (VEC) / Indian Knowledge System (IKS) (Basket 5) *(Common across all faculties)*	Field Work / Project/Internship/ OJT/ Apprenticeship / Case Study Or Co-curricular Courses (CCC) (Basket 6 for CCC) *(Common across all faculties)*	Credits	Total Credits
1	2	3	4	5	6	7	8	9	10	11
1 (4.5)	I	SCSCCT1101 (T 2Cr) SCSCCP1101 (P 2Cr) 4 Credits	SCSCMT1101 (T 2Cr) SCSCMP1101 (P 2Cr) 4 Credits	SCSCMT1102 (T 2Cr) SCSCMP1102 (P 2Cr) 4 Credits	SCSCGE1101 2 Credits	SCSCSC1101 2 Credits	AECENG1101 (2Cr) ACEMIL1101 (2Cr) IKSXXX1101 (2Cr) 6 Credits		22	44
	II	SCSCCT1151 (T 2Cr) SCSCCP1151 (P 2Cr) 4 Credits	SCSCMT1151 (T 2Cr) SCSCMP1151 (P 2Cr) 4 Credits	SCSCMT1152 (T 2Cr) SCSCMP1152 (P 2Cr) 4 Credits	SCSCGE1151 2 Credits	SCSCSC1151 2 Credits	AECENG1151 (2Cr) ACEMIL1151 (2Cr) VECCOI1151 (2Cr) *Constitution of India* 6 Credits		22	
	Cum. Cr.	08	08	08	04	04	08	04	44	

Exit option: **UG Certificate in Opt 1, Opt 2 and Opt 3 on completion of 44 credits** and additional **4 credits from NSQF / Internship**

Abbreviations:

1. **CSC:** Department/Discipline Specific Core (Major)
2. **DSE:** Department/Discipline Specific Elective (Major)
3. **DSM:** Discipline Specific Minor
4. **GE/OE:** Generic/Open Elective
5. **VSEC:** Vocational Skill and Skill Enhancement Course
6. **VSC:** Vocational Skill Courses
7. **SEC:** Skill Enhancement Courses
8. **AEC:** Ability Enhancement courses
9. **MIL:** Modern Indian languages
10. **IKS:** Indian Knowledge System
11. **VEC:** Value Education Courses
12. **OJT:** On Job Training: (Internship/Apprenticeship)
13. **FP:** Field Projects
14. **CEP:** Community Engagement and Service
15. **CC:** Co-Curricular Courses
16. **RM:** Research Methodology
17. **RP:** Research Project/Dissertation

B. Sc. Computer Science First Year Semester I *(Level 4.5)*

Teaching Scheme

	Course Code	Course Name	Credits Assigned			Teaching Scheme (Hrs/ week)	
			Theory	**Practical**	**Total**	**Theory**	**Practical**
Optional 1	SCSCCT1101	Logic Building with C	02	--	**04**	02	--
	SCSCCP1101	Logic Building with C (P)	-	02			04
Optional 2	SCSCMT1101	Web Technology	02	--	**04**	02	--
	SCSCMP1101	Web Technology (P)	-	02			04
Optional 3	SCSCMT1102	Computer Network	02	--	**04**	02	--
	SCSCMP1102	Computer Network (P)	-	02			04
Generic Electives *(from other Faculty)*	SCSCGE1101	Basics of Info. Tech./ Intellectual Property Rights **(Basket 3 of respective Faculty)**	02	--	**02**	02	--
Skill Based Course (related to Major)	SCSCSC1101	Office Automation	--	02	**02**	--	04
Ability Enhancement Course	AECENG1101	L1 – Compulsory English	02	--	**02**	02	--
Indian Knowledge System (IKS)	IKSXXX1101	Select from **Basket 5**	02	--	**02**	02	--
Ability Enhancement Course (MIL)	ACEMIL1101		02	---	**02**	02	--
Total Credits			**14**	**08**	**22**	**14**	**16**

B. Sc. Computer Science First Year Semester I *(Level 4.5)*

Examination Scheme

[20% Continuous Assessment (*CA*) and 80% End Semester Assessment (*ESA*)]
(For illustration we have considered a paper of 02 credits, 50 marks, need to be modified depending on credits assigned to individual paper)

Subject (1)	Course Code (2)	Course Name (3)	Theory				Practical		Total Col (6+7) / Col (8+9) (10)
			Continuous Assessment (CA)			ESA			
			Test I (4)	Test II (5)	Average of T1 & T2 (6)	Total (7)	CA (8)	ESA (9)	
Optional 1	SCSCCT1101	Logic Building with C	10	10	10	40	--	--	50
	SCSCCP1101	Logic Building with C (P)	--	--	--	--	20	30	50
Optional 2	SCSCMT1101	Web Technology	10	10	10	40	--	--	50
	SCSCMP1101	Web Technology (P)	--	--	--	--	20	30	50
Optional 3	SCSCMT1102	Computer Network	10	10	10	40	--	--	50
	SCSCMP1102	Computer Network (P)	--	--	--	--	20	30	50
Generic Elective	SCSCGE1101	Basics of Info. Tech./ Intellectual Property Rights **(Basket 3)**	10	10	10	40	--	--	50
Skill Based Course	SCSCSC1101	Office Automation	--	--	--	--	20	30	50
Ability Enhancement Course	AECENG1101	**L1 – Compulsory English**	10	10	10	40	--	--	50
Indian Knowledge System	IKSXXX1101	Title **(Basket 5)**	10	10	10	40	--	--	50
Ability Enhancement Course (MIL)	**ACEMIL1101**		10	10	10	40	--	--	50

B. Sc. Computer Science First Year Semester II *(Level 4.5)*
Teaching Scheme

	Course Code	Course Name	Credits Assigned			Teaching Scheme (Hrs/ week)	
			Theory	Practical	Total	Theory	Practical
Optional 1	SCSCCT1151	OOP's using C++	02	--	04	02	--
	SCSCCP1151	OOP's using C++ (P)	-	02			04
Optional 2	SCSCMT1151	Data Structure	02	--	04	02	--
	SCSCMP1151	Data Structure (P)	-	02			04
Optional 3	SCSCMT1152	RDBMS	02	--	04	02	--
	SCSCMP1152	RDBMS (P)	-	02			04
Generic Electives *(from other Faculty)*	SCSCGE1151	Statistical Methods **/** Graphics Design and Content Management Tools **(Basket 3 of respective Faculty)**	02	--	02	02	--
Skill Based Course (related to Major)	SCSCSC1151	DTP and Multimedia	--	02	02	--	04
Ability Enhancement Course	AECENG1151	L1 – Compulsory English	02	--	02	02	--
Value Education Courses (VEC)	VECCOI1151	Constitution of India **Basket 5**	02	--	02	02	--
Ability Enhancement Course (MIL)	ACEMIL1151		02	--	02	02	--
Total Credits			**14**	**08**	**22**	**14**	**16**

B. Sc. Computer Science First Year Semester II (*Level 4.5*)

Examination Scheme

[20% Continuous Assessment (*CA*) and 80% End Semester Assessment (*ESA*)]

(For illustration we have considered a paper of 02 credits, 50 marks, need to be modified depending on credits assigned to individual paper)

Subject (1)	Course Code (2)	Course Name (3)	Theory				Practical		Total Col (6+7) / Col (8+9) (10)
			Continuous Assessment (CA)			ESA			
			Test I (4)	Test II (5)	Average of T1 & T2 (6)	Total (7)	CA (8)	ESA (9)	
Optional 1	SCSCCT1151	OOP's using C++	10	10	10	40	--	--	50
	SCSCCP1151	OOP's using C++ (P)	--	--	--	--	20	30	50
Optional 2	SCSCMT1151	Data Structure	10	10	10	40	--	--	50
	SCSCMP1151	Data Structure (P)	--	--	--	--	20	30	50
Optional 3	SCSCMT1152	RDBMS	10	10	10	40	--	--	50
	SCSCMP1152	RDBMS (P)	--	--	--	--	20	30	50
Generic Elective	SCSCGE1151	Statistical Methods **/** Graphics Design and Content Management Tools **(Basket 3)**	10	10	10	40	--	--	50
Skill Based Course	SCSCSC1151	DTP and Multimedia	--	--	--	--	20	30	50
Ability Enhancement Course	AECENG1151	**L1 – Compulsory English**	10	10	10	40	--	--	50
Value Education Courses (VEC)	VECCOI1151	Constitution of India **Basket 5**	10	10	10	40	--	--	50
Ability Enhancement Course (MIL)	ACEMIL1151		10	10	10	40	--	---	50

Course Structure: *Major 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCCT1101	Logic Building with C	02	--	02	--	02

Major 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCCT1101	Logic Building with C	10	10	10	40	--	--	50

SCSCCT1101: *Logic Building with C (Major 1) Curriculum Details*

Course pre-requisite:

1. Basic knowledge of computers

Course Objectives:

- Illustrating flowcharts and designing algorithms
- Exercising user defined functions to solve real time problems
- Students can learn to develop C programs, including how to control program sequence, implement strings, and store different data types

Course Outcomes:

Students will be able to:

- Learn the fundamentals of C programming

- Develop problem-solving skills

- Gain experience with structured programming

- How to work with condition and looping statement

- How to work with arrays

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		**Programming languages**	
	1.1	Machine language	
	1.2	Assembly language	5
	1.3	High level languages	
	1.4	Compilers and Interpreters	
2.0		**Introduction to Programming in C**	
	2.1	History	
	2.2	Application Areas	
	2.3	Algorithms	
	2.4	Flowcharts	
	2.5	Structure of a C program	
	2.6	C Token	
		6.1 Keywords	
		6.2 Variables	
		6.3 Primary Data types	
		6.4 Operators	
	2.7	Formatted I/O Statement	
	2.8	Unformatted I/O Statement	10
3.0		**Controlling Statement**	
	3.1	Decision Making Statement	
		1.1 If Statement	
		1.2 If- else Statement	
		1.3 Nested if –else Statement	
		1.4 Else if Ladder Statement	
		1.5 Switch Statement	
	3.2	Loop Statement	
		2.1 For Loop	
		2.2 While Loop	10
		2.3 Do-while Loop	

		2.4 Nested for Loop	
	3.3	Break, goto and Continue	
4.0		**Array and Structure**	
	4.1	Arrays	
	4.2	Array declaration, initialization	5
	4.3	One dimensional Array	
	4.4	Two dimensional Array	
	4.5	Passing arrays to functions	
		Total	**30**

Reference Books:

1. Complete C Reference – Herbert Schildt (Thomson learning publications)
2. The C Programming language – Kernighan and Ritchie
3. Structured Programming approach using C – Forouzan and Gilberg, 4. Pointer in 'C' Kanetkar Yashavant P. (BPB Publication)
4. Pointer in 'C' Kanetkar Yashavant P. (BPB Publication)
5. C Programming For beginners – Madhav M. Bokare , Nishigandha G.Kurale (Sankalp Publications)

Course Structure: *Major 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCCP1101	Logic Building with C (practical)	--	02	--	02	02

Major 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCCP1101	Logic Building with C (practical)	--	--	--	--	30	20	50

SCSCCP1101:   **Logic Building with C** *(practical) (Major 1)*

Note - Conduct 15 practical's on given Syllabus

Course Structure: *Minor 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCMT1101	Web Technology	02	--	02	--	02

Minor 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCMT1101	Web Technology	10	10	40	10	--	--	50

SCSCMT1101: *Web Technology (Minor 1) Curriculum Details*

Course pre-requisite:

1. Should have basic knowledge about computer.
2. Should have basic knowledge of internet.

Course Objectives:

- To improve the skill to create the static web page.
- To develop the ability to create the dynamic web pages.
- To enhance the ability of Insert a graphic within a web page.
- To improve the skills to Create, validate and publish a web page

Course Outcomes:

- Able to design and implement dynamic websites

- Able to implement new html 5 tags.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		**Introduction of Web**	
	1.1	History of WWW.	7
	1.2	Role of Web browser and web Server.	
	1.3	Client side Programming	
	1.4	IDE applications of HTML.	
	1.5	Web Protocols HTTP, FTP	
2.0		**Introduction of HTML**	
	2.1	Structure of HTML	8
	2.2	What is Tags & attributes of HTML	
	2.3	Create web page using Headings ,Paragraph, BR & HR	
	2.4	Image Tag	
	2.5	Marquee Tag	
3.0		**Core Concepts of HTML**	
	3.1	Creating Ordered & Unordered List	8
	3.2	Creating Anchor Tag	
	3.3	Using frame in HTML	
	3.4	Creating Table in HTML	
	3.5	Creating Form Input and validation	
4.0		**HTML 5**	
	4.1	Introduction to HTML 5	7
	4.2	Advantage and Disadvantages	
	4.3	Elements in HTML 5	
		Total	**30**

Reference Books:

1. HTML The complete Reference -2nd Edition Thomas A. Powel Tata McGraw Hill publication

2. The complete Reference (HTML & XHTML)- 5th Edition Thomas A. Powel Tata McGraw Hill publication

3. Web Technology Using HTML – Dr.Madhav M.Bokare , Dr.P.B.Tamsekar ,

Sankalp Pbulication.

Course Structure: *Minor 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCMP1101	Web Technology (practical)	--	02	--	02	02

Minor 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCMP1101	Web Technology (practical)	--	--	--	--	30	20	50

SCSCMP1101**: Web Technology *(practical) (Minor 1)***

Note – Conduct 15 practical's on given Syllabus

Course Structure: *Minor 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCMT1102	Computer Network	02	--	02	--	02

Minor 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg of T1 & T2 (6)				
SCSCMT1102	Computer Network	10	10	10	40	--	--	50

SCSCMT1102: *Computer Network (Minor 1) Curriculum Details*

Course pre-requisite:

1. Basic handling knowledge about Computers.
2. Basics about Computer Applications.

Course Objectives:

i. Introduction fundamental concepts of computer networking.
ii. Introduce students with various concepts used in network
iii. Introduce various technologies and standards
iv. Allow the student to gain expertise in areas of networking

Course Outcomes:

- After completing this course the student get the knowledge and ability to:
- Understand basic computer network technology.
- Students can identify the different types of network topologies and protocols.
- Students can Identify the different types of network standards

Curriculum Details: *(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		**Basics of Computer Network**	
	1.1	Computer Networking	
	1.2	Signals — Analog and Digital Signals	
	1.3	Parallel and Serial Transmission Mode	**8**
	1.4	Data Transmission Media	
	1.5	Network topologies- BUS, STAR, RING, MESH	
	1.6	Network Types: LAN, MAN, WAN	
2.0		**Network Architecture and IP Address**	
	2.1	Network Standards, Ethernet, Types of Ethernet	
	2.2	Client and Server Architecture	
	2.3	Internet verses Intranet	**7**
	2.4	Connection Oriented & Connectionless Services	
	2.5	IP-address Classes	
	2.6	IPV4 vs IPV6	
3.0		**Protocols and Network Models**	
	3.1	Network protocol: TCP/IP, SMTP	
	3.2	DHCP and DNS	
	3.3	OSI/ISO Reference Model	**8**
	3.4	TCP/IP Reference Model	
	3.5	Switching - Circuit Switching, Packet Switching, Message Switching	
4.0		**Networking Devices and Advanced Networking**	
	4.1	Network Devices - NIC Cards, Switch, Repeaters, Bridges, Gateways, Router.	
	4.2	WiFi vs WiMax	**7**
	4.3	Cloud Computing	
	4.4	Internet Of Things (IOT)	
		Total	**30**

Reference Books:

1. Andrew S. Tannenbaum,"Computer Networks", (Third Edition), Prentice-Hall of India Pvt. Ltd, New Delhi.
2. Data Communication and Networking by Behrouz Forouzan, TATA McGraw Hill.
3. Gerd E. Keiser", Local Area Networks", Tata McGraw Hill Edition, New Delhi.

Course Structure: *Minor 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCMP1102	Computer Network	--	04	--	02	02

Minor 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg of T1 & T2 (6)				
SCSCMP1102	Computer Network	--	--	--	--	20	30	50

SCSCMP1102: *Computer Network (Minor 1) Curriculum Details*

Note: - Conduct 15 practical on given Syllabus.

Course Structure: *Generic Elective-Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCGE1101	Basics of Info. Tech.	02	--	02	--	02

Generic Elective -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCGE1101	Basics of Info. Tech.	10	10	10	40	--	--	50

SCSCGE1101: *Basics of Computer Science (GE) Curriculum Details*

Course pre-requisite:

1. Basic knowledge of computers

Course Objectives:

- Through this paper Student should learn basic principles of computer.
- The paper is designed to aim at importing basic level of Computer.

Course Outcomes:

- To learn Basic Function of Devices like I/O, HDD etc.

- To Understand the Fundamental of Software and

  Hardware. Understand the Concept of Operating System

  and Network.

Curriculum Details: *(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		**Introduction to Computer and History**	
	1.1	Definition of Computer	
	1.2	Basic Computer Organization	
	1.3	Characteristics of Computer	**7**
	1.4	Generations of Computer	
	1.5	Types of Computer: - Microcomputer, Minicomputer, Mainframe Computer, Workstations, Client and Server	
2.0		**Computer Peripherals & Memory**	
	2.1	Input Devices :- Keyboard, Mouse, Trackball, Joystick, Light pen	
	2.2	Output Devices :- Monitor, Printer, Projector, Biometric Devices	**5**
	2.3	Computer Memory :- RAM, ROM, Cache Memory	
3.0		**Storage Devices and Operating System**	
	3.1	Compact Disk, Digital Versatile Disk	
	3.2	Hard Disk Drive	
	3.3	USB Flash Drive	
	3.4	Memory Card	**10**
	3.5	Definition of operating System	
	3.6	Types of Operating System	
	3.7	Disk Operating System	

	3.8	Windows Operating System	
	3.9	Linux Operating System	
4.0		**Introduction to Computer Network & Internet**	
	4.1	Definition of Network	
	4.2	Types of Network :- LAN,MAN,WAN	
	4.3	Data Transmission Modes	**8**
	4.4	OSI Model	
	4.5	E-Mail	
	4.6	File Transfer Protocol	
	4.7	Web Browser	
	4.8	Types of Web Browser	
		Total	**30**

Reference Books:

1. Fundamental of Computer –5th& 6th Edition, P.K.Sinha, BPB Publication
2. Fundamental of Computer - V. Raja Raman, PHI Publication
3. Fundamental of Information Technology – 2nd Edition , Dr.S.B.kishor , Das Ganu publication, Nagpur.

Course Structure: *Generic Elective -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCGE1101	Intellectual Property Rights	02	--	02	--	02

Generic Elective -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCGE1101	Intellectual Property Rights	10	10	10	40	--	--	50

SCSCGE1101: *Intellectual Property Rights (GE) Curriculum Details*

Course pre-requisite:

1. Basic understanding of Intellectual Properties, Patents, Trademarks, Copyrights and designs

Course Objectives:

i. To make the students aware of their rights for the protection of their invention done in their project work.

ii. To get registration in our country and foreign countries of their invention, designs and thesis or theory

iii. to identify the different types of IPR's.

Course Outcomes:

G. Get awareness of acquiring the patent

H. Learn to have copyright for their innovative works.

I. Get the knowledge of plagiarism in their innovations which can be questioned legally

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		**Introduction to IPR**	**8**
	1.1	Meaning of property	
	1.2	Origin, Nature, Meaning of Intellectual Property Rights	
	1.3	Kinds of Intellectual property rights	
2.0		**Patent Rights and Copy Rights**	**7**
	2.1	Origin, Meaning of Patent	
	2.2	Types, Inventions which are not patentable	
	2.3	Registration Procedure	
	2.4	Rights and Duties of Patentee	
3.0		**Copy Rights and Trade Mark**	**8**
	3.1	Definition &Types of Copy Right	
	3.2	Registration procedure	
	3.3	Meaning & Nature of Trade Marks	
	3.4	Types, Registration of Trade Marks	
4.0		**Design**	**7**
	4.1	Definition, Object, Registration of Design	
	4.2	Cancellation of Registration	
	4.3	International convention on design	
	4.4	Functions of Design	
		Total	**30**

Reference Books:

1. Intellectual Property Rights and the Law, Gogia Law Agency, by Dr. G.B. Reddy
2. Law relating to Intellectual Property, Universal Law Publishing Co, by Dr. B.L.Wadehra
3. IPR by P. Narayanan
4. Law of Intellectual Property, Asian Law House, Dr.S.R. Myneni.

Course Structure: *Skill based course -Teaching Scheme*

| Course Code (2) | Course Name (3) | Theory | | | | Practical | | Total [Col (6+7) or Col (8+9)] (10) |
| | | CA | | | ESA (7) | CA (8) | ESA (9) | |
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCSC1101	Office Automation	--	--	--	--	25	25	50

Skill based course -Assessment Scheme

| Course Code | Course Name (Paper Title) | Teaching Scheme (Hrs.) | | Credits Assigned | | |
		Theory	Practical	Theory	Practical	Total
SCSCSC1101	Office Automation	--	02	--	02	02

SCSCSC1101: *Office Automation (Skill based course) Curriculum Details*

1) Study of Word Opening screen
2) Study of EXCEL Opening screen
3) Study of PowerPoint Opening screen
4) Study of Access Opening screen
5) Study of Find and Replace Dialog Box in Microsoft Word
6) Study of Custom Dictionary & Go to Dialog Box
7) Study of Table Formatting
8) Study of mail merge
9) Study of creating charts.
10) Study of border and shading dialog box
11) Study of paragraph dialog box
12) Working with Basics Formulas in Excel
13) Working with more advanced Formulas in Excel
14) Creating Presentation in Power Point
15) Creating database file in Access

Course Structure: *Major 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCCT1151	OOPS with C++	02	--	02	--	02

Major 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCCT1151	OOPS with C++	10	10	10	40	--	--	50

SCSCCT1151: *OOPS with C++ (Major 1) Curriculum Details*

Course pre-requisite:

1. Basic knowledge of C programming language
2. Basic knowledge of File Handling in C

Course Objectives:

- To understand the basic concepts and fundamentals of object oriented language.
- To demonstrate skills in writing programs using OOPS features.
- To understand streams and efficient user interface design techniques.

Course Outcomes:

- Use the syntax and semantics of C++ programming language and basic concepts of OOP.
- Develop reusable programs using the concepts of inheritance, polymorphism, interfaces and packages
- Apply the concepts file handling to store and retrieve data in text files.

Curriculum Details: *(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		**Introduction to OOPs and Basics of C++**	8
	1.1	Basic concepts of OOPs	
	1.2	Benefits of OOPs	
	1.3	C++ Tokens, Variables, Constants and data types	
	1.4	Basic Input / Output Statements	
	1.5	Structure of a C ++ program	
	1.6	Scope Resolution Operator	
	1.7	Control Structure : Conditional Statements, LoopingStatements, Jumping Statements	
	1.8	Arrays	
2.0		**Function, Class & Object**	8
	2.1	Function: Call by value, Call by reference, Default arguments	
	2.2	Inline function	
	2.3	Function Overloading	
	2.4	Defining Class, Members , Object	
	2.5	Visibility modes	
	2.6	Constructors & Destructors	
	2.7	Friend Function	
3.0		**Operator Overloading, Inheritance & Polymorphism**	8
	3.1	Concept of Operator Overloading	
	3.2	Rules for Operator Overloading	
	3.3	Unary & Binary operator overloading	
	3.4	Concept of Inheritance	
	3.5	Types of Inheritance	
	3.6	Concept of Polymorphism	
	3.7	Virtual Base Classes	
	3.8	Pure Virtual functions	
4.0		**C++ I/O System and File Handling**	6
	4.1	C++ Streams	
	4.2	Unformatted I/O operations	
	4.3	Formatted I/O operations	
	4.4	Manipulators	
	4.4	Opening and closing file	
	4.5	file modes	
		Total	30

Text Books:

1. Object Oriented Programming with C++ , 2nd Edition, By Dr.S.B.kishor, Das Ganu Publication , Nagpur.
2. The C++ Programming Language,Fouth Edition,by Bjarne Stroustrup.
3. Programming with C++ by Hubbard John.
4. C++: Programming Basics for Absolute Beginners by Nathan Clark CreateSpace Independent Publishing Platform, 2017.

Course Structure: *Major 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCCP1151	OOPS with C++		04	--	04	04

Major 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCCP1151	OOPS with C++	--	--	--	--	20	30	50

SCSCCP1151: *OOPS with C++ (Major 1) Curriculum Details*

Note: Conduct at least 15 practicals on the above Syllabus

Course Structure: *Minor 2 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCMT1151	Data Structure	02	--	02	--	02

Minor 2 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCMT1151	Data Structure	10	10	10	40	--	--	50

SCSCMT1101: *Data Structure (Minor 2) Curriculum Details*

Course pre-requisite:

Basic knowledge of computers

Course Objectives:

- The data structures paper helps the students to have the practical understanding of the subject.

Course Outcomes:

- Students are able to create and use various data structures like Strings, Arrays, Linked Lists, and Trees.

(There shall be FOUR Modules in each course)

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		**Introduction**	
	1.1	Basic technology; elementary data organization	
	1.2	Data structure	
	1.3	Data structure operations	
	1.4	Complexity, time space tradeoff	**8**
	1.5	Linear array	
	1.6	Representation of linear array in memory	
	1.7	Traversing linear array	
	1.8	Searching methods (Binary and linear search)	
2.0		**Sorting and Linked list**	
	2.1	Selection sort	
	2.2	Bubble sort	
	2.3	Insertion sort	
	2.4	Introduction to Linked list	**8**
	2.5	Representation of Linked list in memory	
	2.6	Searching a linked list	
	2.7	Memory allocation, Garbage collection	
	2.8	Insertion and deletion in linked list	
3.0		**Stacks, Queues, Recursion**	
	3.1	Stacks	
	3.2	Array representation of stacks	
	3.3	Operations on Stacks.	
	3.4	Arithmetic expression	**7**
	3.5	Queues	
	3.6	Queues operations	
	3.7	Priority queue	
4.0		**Tree**	
	4.1	Binary tree	
	4.2	Terminology of Binary tree	
	4.3	Types of Binary tree	**7**
	4.4	Traversing of binary tree	
	4.5	General tree	
		Total	**30**

Reference Books:

1. Data Structure by Seymour Lipschutz MC GRAWHILL
2. Data Structures And Algorithms Concepts, Techniques And Applications G.A.V. Pai MC GRAWHILL.
3. Data Structures , 5th Edition , By Dr.S.B.kishor, Das Ganu Publication, Nagpur.

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Course Structure: *Minor 2 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCMP1151	Data Structure	--	02	--	02	02

Minor 2 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCMP1151	Data Structure (practical)	--	--	--	--	30	20	50

SCSCMP1151**:** *Data Structure (practical) (Minor 2)*

Note - Conduct 15 practical's on given Syllabus

Course Structure: *Minor 2 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCMT1152	RDBMS	02	--	02	--	02

Minor 2 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I(4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCMT1152	RDBMS	10	10	10	40	--	--	50

SCSCMT1151: RDBMS (Minor 2) Curriculum Details

Course pre-requisite:

1. Basic knowledge about DBMS

Course Objectives:

- To understand the features of Relational database.
- To use SQL- the standard language of relational databases for database operations.
- To understand the functional dependencies and design of the databases.

Course Outcomes:

- To study the basic concepts of relational databases
- Understand the use of Structured Query Language (SQL) and learn SQL syntax for writingqueries.
- Apply normalization techniques to normalize the databases.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		**Introduction to DBMS**	
	1.1	Introduction to DBMS and Purpose of Database Systems,	**7**
	1.2	Database-System Applications, Data Abstraction and Database System Structure	
	1.3	Structure of relational databases, Domains, Relations	
	1.4	Keys – Super key, Candidate key, Primary key, Foreign key	
	1.5	Relational algebra	
	1.6	Basic Concepts of ER model	
	1.7	Entity Set, Relationship Sets and Weak Entity Sets	
	1.8	Mapping Cardinalities, E-R diagrams, Extended E-R Features	
2.0		**Relational Database Design**	
	2.1	CODD's Rules	**8**
	2.2	Relational Integrity: Domain, Referential Integrities, Enterprise Constraints	
	2.3	Features of Good Relational Designs	
	2.4	Normalization, Atomic Domains and First Normal Form	
	2.5	Decomposition using Functional Dependencies	
	2.6	2NF, 3NF, and BCNF	
3.0		**Basics of SQL**	
	3.1	DDL, DML, DCL, Structure: Creation, Alteration	**10**
	3.2	Defining constraints – Primary key, Foreign key, Unique key, Not null, Check	
	3.3	IN operator,	
	3.4	Functions - Aggregate Functions, Built-in Functions –Numeric, Date, String Functions	
	3.5	Set operations, sub-queries, correlated sub queries	
	3.6	Use of group by, having, order by	
	3.7	Join and its types	
	3.8	Exist, Any, All	
	3.9	View and its types	
4.0		**Transaction control commands and PL/SQL Concepts**	
	4.1	Commit, Rollback, Save-point	**5**
	4.2	Cursors	
	4.3	Stored Procedures	
	4.4	Stored Function	
	4.5	Database Triggers	
		Total	**30**

ReferenceBooks:

1. A. Silberschatz, H.F. Korth and S. Sudarshan , ―Database System Concepts‖, McGraw Hill, 6th Edition.
2. C.J. Date, A. Kannan, S. Swamynathan ―An introduction to Database Systems‖, Pearson, 8th Edition
3. "Oracle Database 10g PL/SQL Programming" by Scott Urman , Ron Hardman, MichaleMc Laughlin, Oracle Press, TMH, ISBN-0-07-059779-0.
4. Database Programming With Oracle, 2nd Edition By Dr.S.B. Kishor , Das Ganu Publication , Nagpur.(ISBN- 978-93-81660-13-3)
5. "Oracle Database 10g The Complete Reference" By Kevin Loney, Bob Bryla
6. Oracle SQL, PL/SQL the programming language of ORACLE 4th Edition by Ivan Bayross.

Course Structure: *Minor 2 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCMP1152	RDBMS (Practical)	--	04	--	02	02

Minor 2 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCMP1152	RDBMS (Practical)	--	--	--	--	20	30	50

SCSCMP1152: Introduction to RDBMS (Practical) (Minor 2) Curriculum Details

Note: - Conduct 15 practical on given contents.

Course Structure: *Generic Elective -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCGE1151	Statistical Methods	--	04	--	02	02

Generic Elective -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCGE1151	Statistical Methods	10	10	10	40	--	--	50

SCSCGE1151: *Statistical Method (GE) Curriculum Details*

Course pre-requisite:

1. Basic concept of statistics.
2. Calculate and Interact various measures of statistics.

Course Objectives:

- Interact ideas of random variable, frequency distribution, calculate andinteract various measures in statistics

Course Outcomes:

- Explain the use of data collection & statistics.
- Recognize, examine & interact the basic principles of describing and presenting data.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		Introduction	
	1.1	Definition of Statistic	7
	1.2	Importance & Limitation of Statistics	
	1.3	Scope of Statistics (Computer Science, Industry, Economics)	
	1.4	Collection of data	
	1.5	Frequency Distribution	
	1.6	Discrete & Continues variable	
2.0		**Measures of central Tendency**	
	2.1	Concept	
	2.2	Mean Definition ,formulae, Numerical example	8
	2.3	Median Definition ,formulae, Numerical example	
	2.4	Mode Definition ,formulae, Numerical example	
	2.5	Quartile Definition ,formulae, Numerical example	
	2.6	Merits and demerits of Mean median and mode	
3.0		**Correlation & Regression**	
	3.1	Concept	
	3.2	Types of correlation	
	3.3	Karl Pearson's coefficient of correlation	
	3.4	Numerical examples	7
	3.5	Regression	
	3.6	Regression equations/line	
	3.7	Numerical examples	
4.0		**Probability**	
	4.1	Definition	
	4.2	Sample space, Event, Types of event	
	4.3	Permutation & Combination	
	4.4	Theorems of probability a. $P(A)=1-P(A')$ b. $0 \leq P(A) \leq 1$ c. $P(A \cup B)=P(A)+P(B)-P(A \cap B)$	8
	4.5	Examples	
		Total	**30**

Reference Books:

1. "STATISTICAL METHODS" III Edition (2001) S P Gupta & Kapoor

2. "Business Statistics" II Edition (2005) Gupta and Kapoor

3. Foundation of Mathematics statistics – S. C. Gupta & V. K. Kapoor

4. Statistical methods – S. C. Gupta.

Course Structure: *Generic Elective -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCGE1151	Graphics Design and Content Management Tools	02	--	02	--	02

Major 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)	ESA (7)	CA (8)	ESA (9)	
SCSCGE1151	Graphics Design and Content Management Tools	10	10	10	40	--	--	50

SCSCGE1151: *Graphics Design and Content Management Tools (GE) Curriculum Details*

Course pre-requisite:

1. Basic knowledge about flash & WordPress.

Course Objectives:

- Create, manipulate, and edit text and graphics to obtain desired graphical outcomes.
- Provide the skills to effectively create and operate WordPress sites.

Course Outcomes:

After successful completion of this course, students should be able to:

- Utilize several Flash tools and tactics learned throughout the course to produce an
- interactive flash based website.
- Publish flash movies in numerous formats and contexts in a professional and web
- friendly manner.
- Plan website by choosing colour schemes, fonts, layouts, and more.
- Select, install, and activate a theme in word press.
- Design e-commerce site using woo commerce plugin.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs.Required to cover the contents
1.0		**Getting Started with Flash**	
	1.1	Create Flash movie file	
	1.2	Draw the characters and background	
	1.3	Basic drawing tools i.e. Pencil, Brush, Paint Bucket, and Text tools.	**8**
	1.4	Previewing and Publishing Movie, Scenes, Layers, and Library Symbols, Frames, Tweening, and Onion Skinning, Creating Curves, Importing Illustrator/Photoshop Files, Understanding Blend Effects	
2.0		**Advanced Drawing Techniques**	
	2.1	Animating 3D motion, Articulated Motion with Inverse Kinematics	
	2.2	Constraining Joints, Inverse Kinematics with Shapes	
	2.3	Designing a Layout, Creating Buttons and Actions	**7**
	2.4	Creating Event Handlers, Using Sounds, Using Adobe Media Encoder	
	2.5	Playback of External Video, Working with Video and Transparency	
3.0		**Website Development using WordPress**	
	3.1	Installing WordPress, Installing Themes, Creating a Child Theme	
	3.2	Modifying a Theme, Setting Up a WordPress Site, Starting the MRP Theme	
	3.3	The WordPress Loop, Continuing with the Loop, Splitting the Page into Templates	**7**
	3.4	Creating a Page for Single Posts, Creating Pages, Customizing the Navigation Menu	
	3.5	Customizing the Sidebar, creating a Custom Page Template, adding a Contact Form, Uploading a WordPress Site	
4.0		**Advanced WordPress Concepts**	
	4.1	What are plugins? Finding plugins, Installing plugins	
	4.2	Activating and deactivating plugins, Editing plugin settings, Deleting plugins, Adding, editing, and deleting users	
	4.3	User roles and permissions, Importing content from another site, Exporting your WordPress data, WordPress General settings	**8**
	4.4	Changing the site title and tagline, Changing your URL, Using a different homepage .	
	4.5	Updating the admin email address, Changing time zones Date/Time formats	
		Total	**30**

Reference Books:

1. Adobe Flash Professional CS6 Classroom in a Book by Adobe Creative Team

2. Exploring Adobe Flash CS4-Annesha Hartman, Cengage Learning Publication

3. Professional WordPress: Design and Development by Brad Williams, David Damstra, Hal Stern

4. WordPress To Go bySarah McHarry.

Course Structure: *Skill Based Course -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SCSCSC1151	DTP and Multimedia	--	--	02	--	02

Skill Based Course -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SCSCSC1151	DTP and Multimedia	--	--	--	--	20	30	50

SCSCSC1151: *DTP and Multimedia (SBC) Curriculum Details*

Course pre-requisite:

2. Basic knowledge about PageMaker, CorelDraw, Photoshop & Powerpoint.

Course Objectives:

- To understand the fundamentals & concepts of Page Maker, CorelDraw, Photoshop
- To give the students a hands on experience on Page Maker, CorelDraw, Photoshop
- To give students the skills to create book works, building booklets.

Course Outcomes:

After successful completion of this course, students should be able to:
- Ability to learn various methods of PageMaker, CorelDraw, Photoshop
- Ability to apply various Desktop Publishing

Curriculum Details: *(There shall be FOUR Modules in each course)*

1. Draw the following basic shapes om Page maker:
   - (a). 5 cm by 7 cm rectangle.
   - (b). A circle with 6 cm radius.
   - (c). A hexagon
2. To Create a Label using PageMaker software.
3. Create a visiting card in PageMaker
4. Create a corner design in PageMaker
5. Open PageMaker and create a new magazine layout which includes the following setup options:
   Page size - magazine narrow Orientation tall 4-page spread
   Numbering - Lower Roman Margins 1.25 inches- top, and .75 inches - all other sides.
6. Draw a floral design or a cartoon motif in CorelDraw. for a bed sheet.
7. Do the following
   - i) Draw multiple Rectangles and try vertical alignment.
   - ii) Try Grouping and Ungrouping of objects.
   - iii) Try rotation and skewing of objects.
   - iv) Try duplication of objects.
8. Design a 3D button for a Web Page using CorelDraw.
9. Create a text design in Photoshop
10. Create a logo design in Photoshop
11. Create a nature background design in Photoshop
12. Create a background design in Photoshop
13. Study of Multimedia Elements
14. Study of Opening Screen of Power Point
15. Study of Power Point Presentation of MM Elements

Guidelines for the Course Assessment:

A. Continuous Assessment (CA) (20% of the Maximum Marks) of theory and practical courses:

    i.   **For Theory Course:** CA shall form 20% of the Maximum Marks and shall be carried out over the entire semester. It shall be done by conducting **Two Tests** (Test I on 40% curriculum) and **Test II** (on remaining 40% syllabus) and average of the marks scored by a student in these two tests of a particular paper shall be taken as the **CA** score.

    ii.   **For Practical Course:** CA score of the practical course shall be marks scored by a student in the internal practical examination conducted by the concerned teacher.

B. End Semester Assessment (80% of the Maximum Marks) of theory and practical courses:

(For illustration a paper of 02 credits, 50 marks has been considered and shall be modified appropriately depending upon credits of the individual paper)

Question Paper Pattern of the ESA:

    i. **ESA Question paper shall consist 6 questions, each of 10 marks**
    ii. **Question No.1 shall be compulsory and shall be based on the entire syllabus**
    iii. Students shall have to solve *ANY THREE* of the remaining Five Questions (i.e. from question 2 to 6)
    iv. **Students shall have to solve a TOTAL of 4 Questions.**

C. Assessment of On Job Training (OJT) Course (for 04 credits):

a. Continuous assessment part (**40%, 40 marks out of 100**) of this course shall be done by the mentor of the student, where he /she is supposed to complete his On Job Training. This shall be based on the regularity, participation and performance of the students at the place of OJT.

b. Semester End Assessment (ESA) (**60% of the total marks, 60 marks out of 100**) of this course shall be done by a panel of examiners in two parts

i. based on the work report submitted by the student (**50% i.e. 30 marks)** and

ii. **Remaining 50%** (30 marks) shall be based on his presentation and viva-voce on the work carried to be assessed by the panel of examiners. This assessment shall be done along with practical examinations of respective courses / subjects.

D. Assessment of Field Project (FP) and Research Project (RP) (e.g. for 02 credits)

a. Continuous assessment part (**40%, 20 marks out of 50**) of this course shall be done by the mentor of the student and shall be based on regularity, experimental work and performance of the student.

b. Semester End Assessment (ESA) (**60% of the total marks, 30 marks out of 50**) of this course shall be done shall be done by a panel of examiners in two parts

i. based on the work report submitted by the student (**50% i.e. 30 marks)** and

ii. **Remaining 50%** (30 marks) shall be based on his presentation and viva-voce on the work carried out by the student. This assessment shall be done along with practical examinations of the respective courses / subjects.

E. Assessment of Co-Curricular courses (CCC):

a. Assessment of the CCC course shall be done by the respective course coordinator as a part of CA and be based on the regularity, performance of a student and his participation in various activities as prescribed in the regulations prepared in this regard.

b. The End Semester Assessment (ESA) of the CCC courses shall be done as per the regulations prepared in this regard and shall be done on the basis of the write-up, presentation by the student on the activities that he has carried out in a semester.

c. Students shall have freedom to opt for more than one CCC courses. However, score of the best performing CC shall be considered for preparing his result.

F. Syllabi, Teaching and Examination Scheme for the courses in Column 7 and Column 8 (AEC, VEC, IKS, CI, EVS, CCCs, etc.) shall be common for all the students from different faculties.

Note: Number of lectures required to cover syllabus of a course depends on the number of credits assigned to a particular course. One credit of theory corresponds to 15 Hours lecturing and for practical course one credit corresponds to 30 Hours. For example, for a course of two credits 30 lectures of one hour duration are assigned, while that for a three credit course45 lectures.

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