JSS COLLEGE FOR WOMEN (Autonomous)

Saraswathipuram Mysore-9

Choice Based Credit System

CBCS Scheme

COP in

Software Project Management

2026-27

DEPARTMENT OF COMPUTER SCIENCE

Proposed Regulations for the Career Oriented Program in Software Project Management

Preamble

The course of study for the career oriented program is an add-on course. Any Degree student of the college may be admitted. The rules and regulations for admission for the course shall be in accordance with those framed by the college from time to time.

The course of study is taught in two years under semester scheme. The first year course is entitled “CERTIFICATE COURSE IN Software Project Management”. It shall be of one academic year with two semesters/term of 15weeks each.

The second year course is entitled “DIPLOMA COURSE IN Software Project Management”. It shall be of one academic year with two semesters/term of 15 weeks each.

The second year course is entitled “ADVANCED DIPLOMA COURSE IN Software Project Management”. It shall be of one academic year with two semesters/term of 15 weeks each. However, to join this course the candidate should have completed the Certificate course.

A candidate is awarded with the respective certificates at the end of each course with marks obtained.

JSS COLLEGE FOR WOMEN (AUTONOMOUS)

SARASWATHIPURAM MYSURU-570009

CBCS Syllabus – COP in Software Project Management

for 2025-2026 onwards

Year	Sem	Corse	Title	Hours / Week			Credits			Maximum Marks						Exam Duration	Total Marks
										Th IA		Pr IA		Exam			
				L	T	P	L	T	P	C1	C2	C1	C2	Th	Pr		
I	I	DSC 1	Introduction to Office software	2	0	2	2	0	1	10	05	10	05	50	20	2 Hours	100
	II	DSC 2	Computer components	2	0	2	2	0	1	10	05	10	05	50	20	2 Hours	100
II	III	DSC 3	Software Requirement Specification	2	0	2	2	0	1	10	05	10	05	50	20	2 Hours	100
	IV	DSC 4	Software Testing	2	0	2	2	0	1	10	05	10	05	50	20	2 Hours	100
III	V	DSC 5	Software Development	2	0	2	2	0	1	10	05	10	05	50	20	2 Hours	100
	VI	DSC 6	Project Review	2	0	2	2	0	1	10	05	10	05	50	20	2 Hours	100

Proposed syllabus for the Certificate course in Software Project Management :-

SEMESTER-I
Credit (L: T: P = 2: 0: 1)
DSC 1: Office software

Course Outcomes (COs)

Upon successful completion of this course, students will be able to:

CO1: Explain the features and applications of word processing and spreadsheet software for office automation.

CO2: Demonstrate document creation, formatting, table management, and mail merge using word processing software.

CO3: Apply spreadsheet functions, formulas, sorting, filtering, and conditional formatting to analyze and manage data.

CO4: Analyze office documents and spreadsheets to produce accurate, organized, and professional business reports.

Unit I: 15hrs

Text Formatting and saving file: New, Open, Close, Save, Save As, Formatting Text: Font Size, Font Style, Font Color, Use the Bold, Italic, and Underline, Change the Text Case, Line spacing, Paragraph spacing, Shading text and paragraph, Working with Tabs and Indents. Working with Objects: Shapes, Clipart and Picture, Word Art, Smart Art, Columns and Orderings - To Add Columns to a Document, Change the Order of Objects, Page Number, Date & Time, Inserting Text boxes, Inserting Word art, Inserting symbols, Inserting Chart. Tables: Working with Tables, Table Formatting, Table Styles, Alignment option, Merge and split option. Merging Documents: Typing new address list, Importing address list from Excel file, Write and insert field, Merging with outlook contact, Preview Result, Merging to envelopes, Merging to label, Setting rules for merges, Finish & Merge options. Printing: Page Setup, Setting margins, Print Preview, Print

Unit II: 15hrs

Introduction to Excel: Introduction to Excel interface, Understanding rows and columns, Naming Cells, Working with excel workbook and sheets.Perform Calculations with Functions: Creating Simple Formulas, Setting up your own formula, Date and Time Functions, Financial Functions, Logical Functions, Lookup and Reference, Functions Mathematical Functions, Statistical Functions, Text Functions. Sort and Filter Data with Excel: Sort and filtering data, Using number filter, Text filter, Custom filtering, Removing filters from columns, Conditional formatting.

DSC 1: Office software (Practical): As per the Syllabus

Text book

Microsoft Office 365 Bible by Michael Blackfield Reference book

COMPUTER BASICS by G. MANJUNATH B.E., (Author), Publisher : VASAN

PUBLICATIONS

Course Outcomes (COs)

1. **CO1:** Explain the features and applications of word processing and spreadsheet software for office automation. **(K2 – Understand)**
2. **CO2:** Demonstrate document creation, formatting, table management, and mail merge using word processing software. **(K3 – Apply)**
3. **CO3:** Apply spreadsheet functions, formulas, sorting, filtering, and conditional formatting to analyze and manage data. **(K3 – Apply)**
4. **CO4:** Analyze office documents and spreadsheets to produce accurate, organized, and professional business reports. **(K4 – Analyze)**

SEMESTER-II
Credit (L: T: P = 2: 0: 1)
DSC 2:

Computer components

Course Outcomes (COs)

Upon successful completion of this course, students will be able to:
CO1: Explain the concepts of software installation, operating systems, system utilities, drivers, and application software.
CO2: Demonstrate the installation and configuration of different types of software and operating system components.
CO3: Identify and assemble computer hardware components such as motherboard, CPU, RAM, storage devices, and power supply units.
CO4: Analyze computer hardware architecture and troubleshoot basic hardware and software installation issues.

Unit I: **15hrs**

Introduction to software Installation: Definition of software: System vs. Application software.Types of installation: Manual, unattended, web-based, portable.Sources of software:

Official websites, app stores, open-source platforms. Pre-Installation Considerations**:**Checking system requirements (hardware & software).Understanding installation files (.exe, .msi, .dmg, .deb, .rpm, etc.). Legal and ethical considerations (licenses: freeware, shareware, open source, commercial). Introduction to Operating System,Types of OS: Batch, Time-sharing, Distributed, Real-time, Embedded. OS components and services,Utility, Driver, Application Software

Unit II: **15hrs**

Introduction to Hardware: Basic computer architecture (block diagram of a computer). Components of Motherboard: **Motherboard:** Types, form factors,chip-set, **CPU (Processor):** Function, types, sockets, installation, **RAM (Memory):** Types (DDR, DDR3/4/5), Installation, **Storage Devices:** HDD, SSD, NVMe, Optical drives, **Power Supply Unit (SMPS):** Power ratings, Connectors. Assembling and Disassembling of the CPU.

DSC 2: Computer components (Practical): As per the Syllabus

Text book

COMPUTER BASICS by G. MANJUNATH B.E., (Author), Publisher : VASAN

PUBLICATIONS

Proposed syllabus for the Diploma course in Software Project Management:-

SEMESTER-III
Credit (L: T: P = 2: 0: 1)
DSC 3:

Software Requirement Specification

Course Outcomes (COs)

Upon successful completion of this course, students will be able to:

CO1: Explain the concepts, importance, characteristics, and structure of Software Requirement Specification in the SDLC
CO2: Identify and document functional, non-functional, business, and system requirements using SRS standards.
CO3: Develop requirement models using ER diagrams, UML diagrams, Use Case diagrams, Sequence diagrams, and Data Flow Diagrams.
CO4: Analyze software requirements and design models to improve system understanding and project planning.

Unit I: **15hrs**

Introduction to SRS: Definition, Importance of SRS in the SDLC,Stakeholders involved in requirements gathering, Characteristics of a good SRS (correct, complete, consistent, modifiable, traceable.Types of Requirements: Functional requirements, Non-functional requirements (performance, usability, reliability, etc.), Business and user requirements, System vs. software requirements, SRS Document Structure:Based on IEEE 830 / IEEE 29148 standards:Introduction (Purpose, Scope, Definitions), Overall description (Product perspective, user needs, assumptions),Specific requirements (Functional, non-functional, interfaces),Use case and data flow diagrams (optional),Appendices and references.

Unit II: **15hrs**

ER diagram, Advantages of E R diagram.UML defnition, UML Diagram Case study Characteristics, Use-Case diagram, Sequence, Data flow Diagram

DSC 3: Software Requirement Specification(Practical): As per the Syllabus

Text book : Software Project Management(Fourth Edition) by Bohb Hughes and Mike Cotterell, Published by McGraw-Hill Education

SEMESTER-IV
Credit (L: T: P = 2: 0: 1)
DSC 4:

Software Testing

Course Outcomes (COs)

Upon successful completion of this course, students will be able to:

CO1: Explain the fundamentals, principles, types, and importance of software testing, verification, and validation.
CO2: Apply different software testing techniques and prepare effective test plans for software applications.
CO3: Design and execute manual and automated test cases for various software applications.
CO4: Analyze testing challenges and evaluate test results to improve software quality and reliability.

Unit I: **15hrs**

Introduction to testing, Principles of testing, Types of testing, Importance, Verification and validation,

Unit II: **15hrs**

Introduction to Test plan and Test cases, Types of Application, Automation and Manual Test Cases, Importance of Test cases, Challenges of Test cases.

DSC 4: Software Testing (Practical): As per the Syllabus

Text book

Software Project Management(Fourth Edition) by Bohb Hughes and Mike Cotterell, Published by McGraw-Hill Education

Proposed syllabus for the Advanced Diploma course in Software Project Management

SEMESTER-V
Credit (L: T: P = 2: 0: 1)
DSC 5:

Software development

Course Outcomes (COs)

Upon successful completion of this course, students will be able to:

CO1: Explain the fundamentals of software development, project management, team structure, and leadership concepts.
CO2: Apply software project planning techniques including top-down and bottom-up approaches for effective project execution.
CO3: Develop project schedules using tools such as Gantt charts, PERT charts, and critical path analysis.
CO4: Analyze software project organization, communication, and management strategies for successful project delivery.

Unit I: **15hrs**

Software development: Introduction, Software Development Team - Three Vital Aspects of Software Project Management - The Team - Meaning of Leadership - Communicating in Harmony - Personality traits - Project Organizations.

Unit II:
15hrs

Project Planning: Top-Down and Bottom-Up Planning - Types of Activity - Project Duration : Schedule Monitoring Tools - Gantt Chart, PERT Chart, Critical Path.

DSC 2: Software development (Practical): As per the Syllabus

Text book

Software Project Management(Fourth Edition) by Bohb Hughes and Mike Cotterell, Published by McGraw-Hill Education

SEMESTER-VI
Credit (L: T: P = 2: 0: 1)
DSC 6:

PROJECT REVIEW

Course Outcomes (COs)

Upon successful completion of this course, students will be able to:

CO1: Explain the concepts of project review, tracking meetings, recovery plans, and project monitoring activities.
CO2: Apply project engineering techniques to identify customer requirements and define product objectives.
CO3: Use information gathering tools and strategies to analyze project requirements and prepare technical reports.
CO4: Evaluate project progress and review documentation to improve software project planning and execution.

Unit I: **15hrs**

Project review, Tracking Meetings - Recovery plans - Schedule Work & Escalation Meetings. Project Engineering: Product Requirements - Understanding the Customer Problem to solve - Initial Investigation.

Unit II:
15hrs

Strategies for determining information requirements, Information gathering Tools - Product Objectives. Report writing concepts.

DSC 2: PROJECT REVIEW (Practical): As per the Syllabus

Text book

Software Project Management(Fourth Edition) by Bohb Hughes and Mike Cotterell, Published by McGraw-Hill Education

Question Paper Pattern

Theory (1 or 2 Credits)

Time: 2 Hours Max. Marks: 50

Part – A

I. Answer all Questions. 05 X 02 = 10

1.
2.
3.
4.
5.

Part - B

II. Answer any Four Questions. 4 X 10 =40

6.
7.
8.
9.
10.
11.