

SVR GOVERNMENT DEGREE COLLEGE, NIDAVOLE

2023-24

TABLE-A: ANNUAL CURRICULAR PLAN

Department: **COMPUTER SCIENCE**
 Name of the Lecturer: **SOUJANYA BHUKYA**
 COURSE I: ESSENTIALS AND APPLICATIONS OF MATHEMATICAL, PHYSICAL AND CHEMICAL SCIENCES.

Class: 1st B. Sc (M.P.CS) I-Sem

Month & Week	Hours available	Syllabus Topic (as per the university)	Addition Input (or) Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
				Activity	Hours allotted	Whether Conducted	If not Alternate date	Activity	Hours allotted	Whether conducted	If not Alternate date	
1 AUGUST 2023 1st Week	5	Complex Numbers: Introduction of the new symbol i – General form of a complex number – Modulus- Amplitude form and conversions.						QUIZ				
2 AUGUST 2023 2nd Week	5	Trigonometric Ratios: Trigonometric Ratios and their relations – Problems on calculation of angles. Vectors: Definition of vector addition – Cartesian form – Scalar and vector product and problems Statistical. Measures: Mean, Median, Mode of a data and problems.						1: Complex Number Exploration Provide students with a set of complex numbers in both rectangular and polar forms. They will plot the complex numbers on the complex plane and identify their properties.	01			

3	AUGUST 2023 3 rd Week	5	Definition and Scope of Physics- Measurements and Units Motion of objects: Newtonian Mechanics and relativistic mechanics perspective - Laws of Thermodynamics and Significance Acoustic waves and electromagnetic waves- Electric and Magnetic fields and their interactions.							2: Trigonometric Ratios Problem Solving Give students a set of problems that require the calculation of trigonometric ratios and their relations. Students will solve the problems using the appropriate trigonometric functions (sine, cosine, tangent, etc.) and trigonometric identities.	01			
4	AUGUST 2023 4 th Week	5	Behavior of atomic and nuclear particles- Wave-particle duality, the uncertainty principle Theories and understanding of universe.							3: Vector Operations and Applications Provide students with a set of vectors in Cartesian form. Students will perform vector addition and subtraction operations to find the resultant vectors. They will also calculate the scalar and vector products of given vectors.	01			
5	AUGUST 2023 5 th Week	5	Definition and Scope of Chemistry- Importance of Chemistry in daily life. Branches of chemistry and significance-							4: Statistical Measures and Data Analysis Give students a dataset containing numerical values. Students will calculate the mean, median, and mode of the data, as well as other statistical measures if appropriate (e.g., range, standard deviation). They will interpret the results and analyze the central tendencies and distribution of the data.	01			

9	September 2023 4th Week	5	Quality Control and Instrumentation, Environmental Monitoring and Sustainable Technologies, Application of Chemistry in Industry and Technology: Chemical Manufacturing, Pharmaceuticals and Drug Discovery, Materials Science, Food and Beverage Industry.							3. Chemical Changes and Classification of Matter provide students with various substances and chemical reactions, such as mixing acids and bases or observing a combustion reaction. Students will observe and describe the chemical changes that occur, including changes in color, temperature, or the formation of new substances.	01				
	October 2023 1st Week	5	Milestones of computer evolution - Internet, history, Internet Service Providers,							4. Biomolecules Investigation Assign each student or group a specific biomolecule category, such as carbohydrates, proteins, fats, or vitamins. Students will research and gather information about their assigned biomolecule category, including its structure, functions, sources, and importance in the human body. They can create informative posters or presentations to present their findings to the class.	01				
10										1. Interdisciplinary Case Studies Divide students into small groups and provide them with interdisciplinary case studies that	01				
11	October 2023 2nd Week	5	Types of Networks, IP, Domain Name Services, applications.												

14	November 2023 1st Week	5	Malware, Firewalls, Fraud Techniques-																	
15	November 2023 2nd Week	5	Privacy and Data Protection																	
16	November 2023 3rd Week		IIInd MID EXAMINATIONS																	

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Department: COMPUTER SCIENCE
Course 2: ADVANCED IN MATHEMATICAL, PHYSICAL AND CHEMICAL SCIENCES

SVR GOVERNMENT DEGREE COLLEGE, NIDDAVAIOLE

TABLE A: ANNUAL CURRICULAR PLAN

Name of the Lecturer: SOUJANYA BHUKYA

Class: Ist B. Sc (M.P.CS) I-Sem

2023-24

Month & Week	Hours available	Syllabus Topic (as per the university)	Additional Input (or) Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
				Activity	Hours allotted	Whether Conducted	If not Alternate date	Activity	Hours allotted	Whether conducted	If not Alternate date	
1 AUGUST 2023 1st Week	5	Straight Lines: Different forms – Reduction of general equation into various forms – Point of intersection of two straight lines Limits and Differentiation: Standard limits – Derivative of a function – Problems on product rule and quotient rule										
2 AUGUST 2023 2nd Week	5	Integration: Integration as a reverse process of differentiation – Basic methods of integration Matrices: Types of matrices – Scalar multiple of a matrix – Multiplication of matrices – Transpose of a matrix and determinants						1: Straight Lines Exploration Provide students with a set of equations representing straight lines in different forms, such as slope-intercept form, point-slope form, or general form. Students will explore the properties and characteristics of straight lines, including their slopes, intercepts, and point of intersection. 2: Limits and Differentiation Problem Solving Students will apply the concept of limits to solve various problems using standard limits. Encourage students to interpret the results and make connections to real-world applications, such as analyzing rates of change or optimizing functions.	1			
3 AUGUST 2023 3rd Week	5	Renewable energy: Generation, energy storage, and energy-efficient materials and devices.										

4	AUGUST 2023 4th Week	5	Recent advances in the field of nanotechnology: Quantum dots, Quantum Communication- recent advances in biophysics- recent advances in medical physics- Shape Memory Materials.						3: Integration Exploration Students will explore the concept of integration as a reverse process of differentiation and apply basic methods of integration, such as the product rule, substitution method, or integration by parts. Students can discuss the significance of integration in various fields, such as physics and chemistry	1				
5	AUGUST 2023 5th Week	5	Computer aided drug design and delivery, nano sensors, Chemical Biology						4: Matrices Manipulation Students will perform operations on matrices, including scalar multiplication, matrix multiplication, and matrix transpose. Students can apply their knowledge of matrices to real-world applications, such as solving systems of equations or representing transformations in geometry	1				
6	September 2023 1st Week	5	Impact of chemical pollutants on ecosystems and human health, Dye removal - Catalysis method						Case Studies: Provide students with real-world case studies related to renewable energy, nanotechnology, biophysics, medical physics, or shape memory materials. Students will analyze the case studies, identify the challenges or problems presented, and propose innovative solutions based on the recent advances in the respective field. They will consider factors such as energy generation, energy storage, efficiency, sustainability, materials design, biomedical applications, or technological advancements.	1				
7	September 2023 2nd Week	5	Mathematical Modelling applications in physics and chemistry Application of Renewable energy: Grid Integration and Smart Grids, Application of nanotechnology: Nanomedicine, Application of biophysics: Biophysical Imaging, Biomechanics, Neurophysics,						2: Experimental Design Assign students to design and conduct experiments related to one of the topics: renewable energy, nanotechnology, biophysics, medical physics, or shape memory materials.	1				


									They will identify a specific research question or problem to investigate and design an experiment accordingly. Students will collect and analyze data, interpret the results, and draw conclusions based on their findings. They will discuss the implications of their experimental results in the context of recent advances in the field.					
8	September 2023 3rd Week	5	1st MID EXAMINATIONS											
9	September 2023 4th Week	5	Application of medical physics: Radiation Therapy, Nuclear medicine Solid waste management, Environmental remediation- Green Technology, Water treatment.							3: Group Discussion and Debate Organize a group discussion or debate session where students will discuss the ethical, social, and environmental implications of the recent advances in renewable energy, nanotechnology, biophysics, medical physics, and shape memory materials. Assign students specific roles, such as proponent, opponent, or moderator, and provide them with key points and arguments to support their positions.	1			
10	October 2023 1st Week	5	Number System-Binary, Octal, decimal, and Hexadecimal							Experimental Design and Simulation In small groups, students will design experiments or simulations related to the assigned topic. For example, in the context of computer-aided drug design, students could design a virtual screening experiment to identify potential drug candidates for a specific disease target. For nano sensors, students could design an experiment to demonstrate the sensitivity and selectivity of nano sensors in detecting specific analytes. Chemical biology-related activities could involve designing experiments to study enzyme-substrate	1			

									interactions or molecular interactions in biological systems. Students will perform their experiments or simulations, collect data, analyze the results, and draw conclusions based on their findings.	1				
	October 2023 2nd Week	5	Signals-Analog, Digital, Modem, Codec,						Case Studies and Discussion Provide students with real-world case studies related to the impact of chemical pollutants on ecosystems and human health. Students will analyze the case studies, identify the sources and effects of chemical pollutants, and propose mitigation strategies to minimize their impact. Encourage discussions on the ethical and environmental considerations when dealing with chemical pollutants. For the dye removal using the catalysis method, students can explore case studies where catalytic processes are used to degrade or remove dyes from wastewater. Students will discuss the principles of catalysis, the advantages and limitations of the catalysis method, and its applications in environmental remediation.	1				
11														
	October 2023 3rd Week	5	Multiplexing, Transmission media,						3: Group Project Assign students to work in groups to develop a project related to one of the topics. The project could involve designing a computer-aided drug delivery system, developing a nano sensor for a specific application, or proposing strategies to mitigate the impact of chemical pollutants on ecosystems. Students will develop a detailed project plan, conduct experiments or simulations, analyze data, and present their findings and recommendations.	1				
12														

November 2023 2nd Week	5	bridge, switch, router, gateway.						
15								
16 November 2023 3rd Week	5	IInd MID EXAMINATIONS						

Group Project
Assign students to work in groups to develop a group project that integrates mathematical modelling with one of the application areas: renewable energy, nanotechnology, biophysics, medical physics, solid waste management, environmental remediation, or water treatment.
The project could involve developing a mathematical model to optimize the delivery of radiation therapy in medical physics or designing a mathematical model to optimize waste management practices.
Students will plan and execute their project, apply mathematical modelling techniques, analyze the results, and present their findings and recommendations. Encourage creativity, critical thinking, and collaboration throughout the project.

Students must be able to convert numbers from other number system to binary number systems
Identify the networking media used for your college network
Identify all the networking devices used in your college premises


Signature of the Lecturer


Signature of the Dept. Lc


Signature of the Principal

Department: **COMPUTER SCIENCE**
 Paper: **III - DATABASE MANAGEMENT SYSTEMS.**

SVR GOVERNMENT DEGREE COLLEGE, NIDADAVOLE
TABLE A : ANNUAL CURRICULAR PLAN

Name of the Lecturer: **SOUJANYA BHUKYA**

Class: **2nd B. Sc (M.P.CS)** III-Sem

2023-24

Month & Week	Hours available	Syllabus Topic (as per the university)	Additional Input (or) Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
				Activity	Hours allotted	Whether Conducted	If not Alternate date	Activity	Hours allotted	Whether conducted	If not Alternate date	
1 AUGUST 2023 4th Week	4 2	Introduction to data, information, database, database management systems, file-based system, Drawbacks of file-Based System. 1. Create above tables with relevant Primary Key, Foreign Key and other constraints. 2. Populate the tables with data.						—				
2 AUGUST 2023 5th Week	4 2	Database approach, Classification of Database Management Systems, advantages of database approach, Various Data Models. 3. Display all the details of all employees working in the company. 4. Display ssn, lname, fname, address of employees who work in department no 7.						Student Seminar				
3 September 2023 1st Week	4 2	Components of Database Management System, three schema architecture of data base, costs and risks of database approach. 5. Retrieve the Birthdate and Address of the employee whose name is 'Franklin T. Wong'. 6. Retrieve the name and salary of every employee.						Student Seminar				

4	September 2023 2nd Week	4	ER Model: Introduction, the building blocks of an entity relationship diagram, classification of entity sets, attribute classification. 7. Retrieve all distinct salary values. 8. Retrieve all employee names whose address is in 'Bellare'.															
5	September 2023 3rd Week	4	Relationship degree, relationship classification, reducing ER diagram to tables, enhanced entity-relationship model (EER model). 9. Retrieve all employees who were born during the 1950s 10. Retrieve all employees in department 5 whose salary is between 50,000 and 60,000(inclusive).								Assignment							
6	September 2023 4th Week	4	Generalization and specialization, IS A relationship and attribute inheritance, multiple inheritance, constraints on specialization and generalization, advantages of ER modeling. 11. Retrieve the names of all employees who do not have supervisors. 12. Retrieve SSN and department name for all employees.	2							Student Seminar							


7	October 2023 1st Week	2	Relational Model: Introduction, CODD Rules, relational data model, concept of key, relational integrity. 13. Retrieve the name and address of all employees who work for the 'Research' department. 14. For every project located in 'Stafford', list the project number, the controlling department number, and the department manager's last name, address, and birth date.																
8	October 2023 2nd Week	4 2	1st Mid Examinations																
9	October 2023 3rd Week	4 2	Relational algebra, relational algebra operations, advantages of relational algebra, limitations of relational algebra. Relational calculus, tuple relational calculus. 15. For each employee, retrieve the employee's name, and the name of his or her immediate supervisor. 16. Retrieve all combinations of Employee Name and Department Name. 17. Make a list of all project numbers for projects that involve an employee whose last name is 'Narayan' either as a worker or as a manager of the department that controls the project.																
10	October 2023 4th Week	4 2	Domain relational Calculus (DRC), Functional dependencies and normal forms up to 3rd normal form. 17. Make a list of all project numbers for projects that involve an employee whose last name is 'Narayan' either as a worker or as a manager of the department that controls the project.																

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		2	department, as well as the maximum salary, the minimum salary, and the average salary in this department.																
14	November 2023 4th Week	4	Introduction, Shortcomings of SQL, Structure of PL/SQL, PL/SQL Language Elements. 24. Select the names of employees whose salary is greater than the average salary of all employees in department 10.								Student Seminar								
15	November 2023 5th Week	4	Data Types, Operators Precedence, Control Structure. Steps to Create a PL/SQL Program. Iterative Control, Procedure, Function, Database Triggers, Types of Triggers. 25. Delete all dependents of employee whose ssn is '123456789'. 26. Perform a query using alter command to drop/add field and a constraint in Employee table.								Student Seminar								
16	December 2023 1st Week	4	II nd MID EXAMINATIONS																


Signature of the Lecturer


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SJR GOVERNMENT DEGREE COLLEGE, NIDAVOILE
TABLE-A: ANNUAL CURRICULAR PLAN

2022-23

Department: **COMPUTER SCIENCE**
Paper: **VII A - Web Applications Development using PHP & MYSQL**

Name of the Lecturer: **SOLEJANYA BHEKVA**

Class: **3rd B. Sc (M.P.CS) V-Sem**

Month & Week	Hours available	Syllabus Topic (as per the university)	Additional Input (or) Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
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1 October 2023 1st week.	4	The Building blocks of PHP: Variables, Data Types, Operators and Expressions, Constants, Flow Control Functions in PHP: Switching Flow, Loops. 1. Write a PHP program to Display "Hello" 2. Write a PHP Program to display the today's date.						Student Seminar				
2 October 2023 2nd week.	4	Code Blocks and Browser Output, Working with Functions: What is function?, Calling functions, Defining Functions, Returning the values from User-Defined Functions. 3. Write a PHP program to display Fibonacci series. 4. Write a PHP Program to read the employee details.						Student Seminar				

3	October 2023 3rd Week.	4	Variable Scope, Saving state between Function calls with the static statement, more about arguments. 5. Write a PHP program to prepare the student marks list. 6. Write a PHP program to generate the multiplication of two matrices.																	
4	October 2023 4th Week.	4	Working with Arrays: What are Arrays? Creating Arrays, Some Array-Related Functions. 7. Create student registration form using text box, check box, radio button, select, submit button. And display user inserted value in new PHP page. 8. Create Website Registration Form using text box, check box, radio button, select, submit button. And display user inserted value in new PHP page.							Student Seminar										
5	November 2023 1st Week.	4	Working with Objects: Creating Objects, Object Instance Working with Strings, Dates and Time. 9. Write PHP script to demonstrate passing variables with cookies. 10. Write a program to keep track of how many times a visitor has loaded the page.							Assignment										

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Session Function Overview, Starting a Session, Working with session variables, passing session IDs in the Query String, Destroying Sessions and Unsetting Variables, Using Sessions in an Environment with Registered Users.

16. Write a PHP script to connect MySQL server from your website.

17. Write a program to read customer information like cust-no, cust-name, item-purchased, and mob-no, from customer table and display all these information in table format on output screen.

- Working with Files and Directories: Including Files with include(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files.
18. Write a program to edit name of customer to "Kiran" with cust-no =1, and to delete record with cust-no=3.
19. Write a program to read employee information like emp-no, emp-name, designation and salary from EMP table and display all this information using table format in your website.

12	December 2023 3rd week.	4	2	Writing on Appending to a File, Working with Directories, Open Pipes to and from Process (using popen()), Running Commands with exec(), Running Commands with system() or passthru(). 20. Create a dynamic web site using PHP and MySQL.						Student Seminar							
13	December 2023 4th week.	4	2	Working with Images: Understanding the Image-Creation Process, Necessary Modifications to PHP, Drawing a New Image, Getting Fancy with Pie Charts, Modifying Existing Images, Image Creation from User Input. PROJECT WORK						Student Seminar							
14	January 2024 4th week.	4	2	Interacting with MySQL using PHP: MySQL Versus MySQLi Functions, connecting to MySQL with PHP, Working with MySQL Data. PROJECT WORK						Assignment							
15	January 2024 2nd week.	4	2	Creating an Online Address Book: Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record Deletion Mechanism, Adding Sub-entities to a Record. PROJECT WORK.						Webpage development competition among small groups of students.							
16	January 2024 3rd week.	4	2	IIInd MID EXAMINATIONS													

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Signature of the Principal

SVR GOVERNMENT DEGREE COLLEGE, NIDAVOLLE

TABLE-A- ANNUAL CURRICULAR PLAN

2023-24

Department: **COMPUTER SCIENCE**
Paper: **VI A - Web Interface Designing Technologies**

Name of the Lecturer: **SOUJANYA BHEENVYA**

Class: **3rd B. Sc (M.P.CS) V-Sem**

Month & Week	Hours available	Syllabus Topic (as per the university)	Additional Input (or) Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
				Activity	Hours allotted	Whether Conducted	If not Alternate date	Activity	Hours allotted	Whether conducted	If not Alternate date	
1 October 2023 1st Week	4	HTML: Introduction to web designing, difference between web applications and desktop applications, introduction to HTML. 1. Create an HTML document with the following formatting options: (a) Bold, (b) Italics, (c) Underline, (d) Headings (Using H1 to H6 heading styles), (e) Font (Type, Size and Color), (f) Background (Colored background/Image in background), (g) Paragraph, (h) Line Break, (i) Horizontal Rule, (j) Pre tag.						<i>Student Seminar</i>				
2	2	2. Create an HTML document which consists of: (a) Ordered List (b) Unordered List (c) Nested List (d) Image.										
October 2023 2nd Week	4	HTML structure, elements, attributes, headings, paragraphs, styles, colours, HTML formatting, Quotations, Comments, images.						Student Seminar				
2	2	3. Create a Table with four rows and five columns. Place an image in one column.										

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12	December 2023 3 rd Week	4 2	Understanding admin panel, working with posts and pages, using editor, text formatting with shortcuts. 1. Installation and configuration of word press. 2. Create a site and add a theme to it. 20 Create a child theme																
13	December 2023 4 th Week	4 2	Working with media-Adding, editing, deleting media elements, working with widgets, menus. Working with themes-parent and child themes, using featured images, configuring settings. 3. Create five pages on COVID - 19 and link them to the home page.. 4. Create a simple post with featured image.																
14	January 2024 1 st week	4 2	User and user roles and profiles, adding external links, extending word press with plug-ins. 5. Add an external video link with size 640 X 360. 6. Create a user and assign a role to him.																
15	January 2024 2 nd Week	4 2	Customizing the site, changing the appearance of site using css , protecting word press website from hackers. 7. Create a login page to word press using custom links. 8. Create a website for your college.																

16	January 2024 3rd Week	4	IInd MID EXAMINATIONS									
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