STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

Course Schedule: November 2023 - April 2024

Department   : Computer Science

Name/s of the Faculty   : Ms. Nancy Arokia Rani S, Dr. Swetha Margaret T.A,

Course Title   : Security Concepts

Course Code   : 19CS/MC/SC65

Shift   : II

Week & No. of hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Nov 22 – 23, 2023 (Day Order 1 & 2) & 2 hrs	**Unit I** **1.1 Computer security overview -** Computer security concepts -The OSI security architecture - Security attacks- Security services -Security mechanisms- A Model for network security.	Lecture and Presentation	Stallings William. Cryptography and Network Security: Principles and Practices. Prentice Hall, 5th Edition, 2010.	Demo packet-traveling practicalnetworking.net
Nov 24-30, 2023 (Day Order 1 to 6) & 5 hrs	**1.2 Physical security** Classification of assets- Choosing site location for security- Securing assets: Locks and entry controls- Physical intrusion detection- Compliance with standards	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Video Observation Exploring different kinds of IDS system and their work mechanisms
Dec 1-7, 2023 (Day Order 1 to 6) & 5 hrs	**1.3 Access Control** Access Control Techniques- Authentication Tokens- Authentication-Role of Tokens Access Control Administration - Accountability	Lecture and Presentation	Harold F. Tipton, Micki Krause, Information Security Management Handbook 6th Edition	Activity - Finding Out How Computers Read Information Exploring - Binary Code Name Tags

Week & No. of Hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Dec 8-9, 2023 (Day Order 1, 3) & 2 hrs	**Unit II - 2.1 Computer Security -**Operating System Models- Classic security model- Reference monitor - Case studies: UNIX security-Windows security - Securing infrastructure services VM and cloud computing- Securing mobile devices	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	**Component I** 25 Marks descriptive based test which will include objectives and case study analysis
Dec 11-15, 2023 (Day Order 2 to 6) & 4 hrs	**2.2 Network Security** Securing network design- Introduction to secure network design Network Device Security-Switch and router basics -Network hardening	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Activity: Network Scavenger Hunt Find Out What Protocols Are And How to Create One
Dec 16 – 22, 2023 (Day Order 1 to 6) & 5 hrs	**2.3 Firewall** Overview- Core firewall functions- Additional firewall capabilities - Firewall design	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Discussion
Jan 3 – 6, 2024 (Day Order 1 to 4) & 3 hrs	**Unit III** **3.1 VPN -** How a VPN works-VPN protocols- Remote access VPN security-Site-to-Site VPN security	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Activity: Network Scavenger Hunt Find Out What Protocols Are And How to Create One
Jan 8 – 12, 2024	**C.A. Test – I**			
Jan 13, 2024 (Day Order 1) & 1 hr	**3.2 Wireless network security -** Radio frequency security basics-Data-link layer Wireless security features, flaws and threats	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	

Week & No. of Hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Jan 18 -20, 2024 (Day Order 4 to 6) & 2 hrs	Wireless vulnerabilities and mitigations-Wireless network hardening practices and recommendations **3.3 VOIP** Background -VoIP components	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Explore Computer Communication Protocols
Jan 22-29, 2024 (Day Order 1 to 6) & 5 hrs	VoIP vulnerabilities and countermeasures **3.4 IDS and Prevention System -** IDS concepts-IDS types and detection models-IDS features	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Assignment
Jan 30 –Feb 2,2024 (Day Order 1 to 4) & 2 hrs	IDS deployment considerations **Unit IV** **4.1 Securing unstructured Data** Structured data vs. unstructured data	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Quiz
Feb 3, 2024 (Day Order 2) & 1 hr	At rest, in transit, and in use -Approaches to securing unstructured data- newer approaches to securing unstructured data	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Group Discussion on Ransome attacks
Feb 5- 6, 2024 (Day Order 5 to 6) & 2 hrs	**4.2 Storage Security** Storage security evolution-Modern storage security **4.3 Database Security** General database security concepts	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	**Component II** Expo/ Exhibition on cyber security / security concept and awareness

Week & No. of Hours	Units & Topics	Teaching Methodology	Text &References	Method of Evaluation
Feb 7 – 14, 2024 (Day Order 1 to 6) & 5 hrs	-Understanding database security layers Understanding database-level security - Using other database objects for security	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Case Study on Cybersecurity Breaches Of 2023
Feb 15 – 22, 2024 (Day Order 1 to 6) & 5 hrs	Database backup and recovery **Unit V** **5.1 User Security** Authentication – Authorization-	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Case Study on Cybersecurity Breaches Of 2023
Feb 23 – 24, 2024 (Day Order 1 & 5) & 4 hrs	Compliance with standards **5.2 Application Security** Secure development life cycle- Application security practices-Web application Security	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Group Discussion Find Out What Malware Is Activity: Word and Definition Pairing
Feb 26 – Mar 1, 2024 (Day Order 2 to 6) & 3 hrs	**5.2 Application Security** Secure development life cycle- Application security practices-Web application Security	Lecture and Presentation	Rhodes Mark. Ousley. Information Security: The Complete Reference. McGraw Hill, 2nd Edition, 2013	Group Discussion Find Out What Malware Is
Mar 2, 2024 (Day Order 1) & 1 hr	Client application security-Remote administration security	Lecture and Presentation	Stallings William. Cryptography and Network Security: Principles and Practices. Prentice Hall, 5th Edition, 2010.	Discover How You Share Information and What to Share

Week & No. of Hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation	
Mar 4 –8, 2024	C.A. Test – II				
Mar 9 – 16, 2024 (Day 6 & Day Order 1 to 6) & 5 hrs	**5.3 Classical Encryption Techniques** Symmetric cipher model- Substitution techniques	Lecture and Presentation	Stallings William. Cryptography and Network Security: Principles and Practices. Prentice Hall, 5th Edition, 2010.	Discover How You Share Information and What to Share Activity: Think Like A Hacker	
Mar 18 - 19, 2024 (Day Order 2 to 3) & 1 hr	Transposition techniques- Rotor machines Steganography	Lecture and Presentation	Stallings William. Cryptography and Network Security: Principles and Practices. Prentice Hall, 5th Edition, 2010.	Information Online Lasts Forever Activity: What Does Your Digital Footprint Look Like?	
Mar 20-22, 2024 (Day Order 4 to 6) & 2 hrs	REVISION				

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

Course Schedule: November 2023 - April 2024

Department : Computer Science
Name/s of the Faculty : Dr. Renuka Devi.D, Ms. Nandhini.S
Course Title : Cloud Computing
Course Code : 19CS/MC/CC65
Shift : II

Week & No. of hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Nov 22 – 23, 2023 (Day Order 1 & 2) 2 Hrs	**Unit 1** **1.1 Introduction** Cloud Computing at a Glance - The Vision of Cloud Computing - Defining a Cloud - A Closer Look	Lecture/Demo	*Buyya, Rajkumar, Christian Vecchiola, and S. Thamarai Selvi.* Mastering cloud computing: foundations and applications programming. *Elsevier, 2013.*	Quiz Elicitation Activity
Nov 24-30, 2023 (Day Order 1 to 6) 6 Hrs	The Cloud Computing Reference Model - Characteristics and Benefits Challenges Ahead -Historical Developments - Distributed Systems	Lecture/Demo	*-do-*	Brian storming
Dec 1-7, 2023 (Day Order 1 to 6) 6 Hrs	Virtualization - Web 2.0 - Service-oriented Computing -Utility-oriented Computing -Building Cloud Computing Environments - Application Development – Infrastructure and System Development – Computing Platforms and Technologies	Lecture/Demo	*-do-*	Brainstorm on cloud applications
Dec 8-9, 2023 (Day Order 1, 3) 3 Hrs	**1.2 Principles of Parallel and Distributed Computing** Eras of Computing - Parallel vs. Distributed Computing – Elements of Parallel Computing - Elements of Distributed Computing – Technologies for Distributed Computing	Lecture/Demo	*-do-*	Puzzle

Week & No. of Hours	Units & Topics	Teaching Methodology	*Text & references*	Method of Evaluation
Dec 11-15, 2023 (Day Order 2 to 6) 4 Hrs	**Unit 2** **2.1 Virtualization** Introduction – Characteristics of Virtualized Environments – Taxonomy of Virtualization Techniques – Virtualization and Cloud Computing - Pros and Cons of Virtualization	Lecture/Demo	*-do-*	Crossword
Dec 16 – 22, 2023 (Day Order 1 to 6) 6 Hrs	**2.2 Cloud Computing Architecture** Introduction – The Cloud Reference Model – Types of Clouds – Economics of the Cloud – Open Challenges **2.3 Practical Demonstration** Virtualization in Cloud - Infrastructure as a Service - Software as a Service	Lecture/Demo	*-do-*	Component I: MCQ Test / Analysis based
Jan 3 – 6, 2024 (Day Order 1 to 4) 4 Hrs	**Unit 3** **3.1 Resource Pooling, Sharing and Provisioning** Resource Pooling - Commoditization of the Data Center - Standardization, Automation and Optimization – Resource Sharing – Resource Provisioning	Lecture/Demo	*Bhowmik, Sandeep.* Cloud Computing *Cambridge University Press, 2017.*	Utilizing Microsoft web services
Jan 8 – 12, 2024	**C.A. Test – I**			
Jan 13, 2024 (Day Order 1) 1 Hr	**3.2 Scaling in the Cloud** What is Scaling – Scaling in Traditional Computing – Scaling in Cloud Computing – Foundation of Cloud Scaling	Lecture/Demo	*Bhowmik, Sandeep.* **Cloud Computing** *Cambridge University Press, 2017.*	Quiz

Week & No. of Hours	Units & Topics	Teaching Methodology	*Text & References*	Method of Evaluation
Jan 18 -20, 2024 (Day Order 4 to 6) 3 Hrs	– Scalable Application – Scaling Strategies in Cloud Auto Scaling in Cloud – Types of Scaling – Horizontal Scaling is more Cloud-Native Approach Performance and Scalability – The Resource Contention Problem – Cloud Bursting: a scenario of flexible scaling – Scalability is a business concern	Lecture/Demo	*-do-*	Quiz
Jan 22-29, 2024 (Day Order 1 to 6) 6 Hrs	**3.3 Capacity Planning** What is Capacity Planning – Capacity Planning in Computing-Capacity Planning in Cloud Computing - Cloud Capacity: Consumers' View vs. Providers' View – Capacity Planning Then and Now	Lecture/Demo	*-do-*	Discussion
Jan 30 – Feb 2, 2024 (Day Order 1 to 4) 4 Hrs	Approaches for Maintaining Sufficient Capacity – Role of Auto-Scaling in Capacity Planning - Capacity and Performance: Two Important System Attributes – Steps for Capacity Planning	Lecture/Demo	*-do-*	Group Activity
Feb 3, 2024 (Day Order 2) 1 Hr	**3.4 Load Balancing** Load Balancing – Importance of Load Balancing in Cloud Computing	Lecture/Demo	*-do-*	Quiz
Feb 5- 6, 2024 (Day Order 5 to 6) 2 Hrs	How Load Balancing is done in Cloud – Goals of Load Balancing	Lecture/Demo	*-do-*	Quiz
Feb 7 – 14, 2024 (Day Order 1 to 6) 6 Hrs	Categories of Load Balancing – Parameters for Consideration -Load Balancing Algorithms – The Persistence Issue – Application Delivery Controller	Lecture/Demo	-do-	Quiz

Week & No. of Hours	Units & Topics	Teaching Methodology	*Text & References*	Method of Evaluation
Feb 15 – 22, 2024(Day Order 1 to 6) 6 Hrs	**Unit 4** **4.1 Understanding Cloud Security** Securing the Cloud – Securing Data – Establishing Identity and Presence	Lecture/Demo	*Sosinsky, Barrie.* Cloud Computing Bible. *John Wiley & Sons, 2011.*	Identifying security through discussion
Feb 23 – 24, 2024(Day Order 1 & 5) 2 Hrs	**4.2 SOA and Moving Applications to the Cloud** Introducing Service Oriented Architecture – Defining SOA Communications - Applications in the Clouds – Applications and Cloud APIs	Lecture/Demo	*-do-*	Quiz
Feb 26 – Mar 1, 2024(Day Order 2 to 6)5 Hrs	**4.3 Working with Cloud-based Storage** Measuring the Digital Universe – Provisioning Cloud Storage	Lecture/Demo	*-do-*	Quiz
Mar 2, 2024 (Day Order 1) 1 Hr	Exploring Cloud Backup Solutions – Cloud Storage Interoperability	Lecture/Demo	*-do-*	Quiz
Mar 4 –8, 2024	**C.A. Test – II**			
Mar 9 – 16, 2024(Day 6 & Day Order 1 to 6) 7 Hrs	**Unit 5** 5.1 Case Studies Google Web Service	Lecture/Demo	*-do-*	Component II – Case study Presentation
Mar 18 - 19, 2024(Day Order 2 to 3) 2 Hrs	Amazon Web Service, Microsoft Cloud Service	Lecture/Demo	*-do-*	Case study discussion
Mar 20-22, 2024(Day Order 4 to 6) 3 Hrs	**REVISION**			

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

Course Schedule: November 2023 - April 2024

Department   **: Computer Science**

Name/s of the Faculty   **: Dr. Sharmili K C, Ms. Madhura Prabha R**

Course Title   **: Project**

Course Code   **: 19CS/MC/PR64**

Shift   **: II**

Week & No. of hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Nov 22 – 23, 2023(Day Order 1 & 2) 2 hrs	Requirements Gathering and Analysis	Discussion with Project Guides	Software Engineering: A Practitioner's Approach Roger Pressman *Refer: Software Requirements template*	Discussion
Nov 24-30, 2023 (Day Order 1 to 6) 8 hrs	Requirements Gathering and Analysis	Discussion with Project Guides	Software Engineering: A Practitioner's Approach Roger Pressman *Refer: Software Requirements template*	Submission of i) Abstract ii) Software requirements document Nov 30, 2023
Dec 1-7, 2023 (Day Order 1 to 6) 8 hrs	System Analysis and Design	Discussion with Project Guides	Software Engineering: A Practitioner's Approach Roger Pressman *Refer: Software Requirements template*	Preparation of Design Document
Dec 8-9, 2023 (Day Order 1, 3) 4 hrs	System Design	Discussion with Project Guides	Software Engineering: A Practitioner's Approach Roger Pressman System analysis and Design Dennis, Wixom, Roth	Preparation of Design Document
Dec 11-15, 2023 (Day Order 2 to 6) 6 hrs	Designing /Review	Review by Project Guides	Software Engineering: A Practitioner's Approach Roger Pressman System analysis and Design Dennis, Wixom, Roth	Preparation of Design Document

Week & No. of Hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Dec 16 – 22, 2023 (Day Order 1 to 6) 8 hrs	Implementation and further updation of design document	Review by Project Guides	Reference to be made by students according to the software used for development. Refer: Test Case Templates	Component I: Submission of i) Updated design Document (Dec 19, 2023) ii) Prototype (Dec 19, 2023) iii) Test Cases
Jan 3 – 6, 2024 (Day Order 1 to 4) 6 hrs	Implementation [Development of a working model of one module]	Review by Project Guides	Reference to be made by students according to the software used for development	Discussion
Jan 8 – 12, 2024	**C.A. Test – I**			
Jan 13, 2024 (Day Order 1) 2 hrs	Implementation	Discussion with Project Guides	Reference to be made by students according to the software used for development	**CA I – Review** Implementation of 20% of the Project [Development of a working model of one module] (Jan 13, 2024)
Jan 18 -20, 2024 (Day Order 4 to 6) 6 hrs	Implementation	Discussion with Project Guides	Reference to be made by students according to the software used for development	Discussion
Jan 22-29, 2024(Day Order 1 to 6) 8 hrs	Implementation	Discussion with Project Guides	Reference to be made by students according to the software used for development	Implementation of 60% of the Project (Jan 22, 2024)
Jan 30 – Feb 2, 2024(Day Order 1 to 4) 6 hrs	Implementation	Review by Project Guides	Reference to be made by students according to the software used for development	Review

Week & No. of Hours	Unit & Topics	Teaching Methodology	Text & references	Method of Evaluation
Feb 3, 2024 (Day Order 2) 2 hrs	Implementation	Discussion with Project Guides	Reference to be made by students according to the software used for development	Implementing suggested changes
Feb 5- 6, 2024 (Day Order 5 to 6) 2 hrs	Implementation	Discussion with Project Guides	Reference to be made by students according to the software used for development	Implementing suggested changes
Feb 7 – 14, 2024 (Day Order 1 to 6) 8 hrs	Implementation	Discussion with Project Guides	Reference to be made by students according to the software used for development	Review
Feb 15 – 22, 2024 (Day Order 1 to 6) 8 hrs	Implementation and Integration of all modules	Discussion with Project Guides	Reference to be made by students according to the software used for development	Component II: i) 80% of project completion ii) Submission of Integrated Project (Feb 15, 2024)
Feb 23 – 24, 2024 (Day Order 1 & 5) 6 hrs	Implementation and Integration of all modules	Discussion with Project Guides	Reference to be made by students according to the software used for development	Discussion
Feb 26 – Mar 1, 2024(Day Order 2 to 6) 6 hrs	Implementation and Integration of all modules	Discussion with Project Guides	Reference to be made by students according to the software used for development	Review
Mar 2, 2024 (Day Order 1) 2 hrs	Testing and Documentation	Discussion with Project Guides	Reference to be made by students according to the software used for development	Submission of Test cases with results
Mar 4 –8, 2024	**C.A. Test – II**			

Week & No. of Hours	Units & Topics	Teaching Methodology	Text & references	Method of Evaluation
Mar 9 – 16, 2024 (Day 6 & Day Order 1 to 6) 10 hrs	Testing and Documentation	Review by Project Guides	*Refer: Testcase template attached below*	**CA II – Review** i) 100% project completion ii) Submission of Documentation (Mar 9, 2024)
Mar 18 - 19, 2024 (Day Order 2 to 3) 4 hrs	Deployment and Testing	Review by Project Guides	Reference to be made by students according to the software used for development	Review
Mar 20-22, 2024 (Day Order 4 to 6) 6 hrs	**REVISION**			

All Templates given below

Software Requirements Document template

Introduction

Overview
<Overview of the software system that needs to be built>

Scope
<What is included – mention as bullet points>

<What is excluded – mention as bullet points>

System Interfaces
<Give each screen if it is a GUI based application/Explain parameters/data >

User Prerequisites

<Whether user should have basic knowledge about browsers>

<Whether user should know english language?>

<Whether user should have decent degree of expertise in a particular domain?>

Assumptions and Dependencies

<assumptions>

Software and Hardware system attributes

      Portability

      System Load

<Single user environment or multi-user environment>

<if multi-user is it concurrent, if concurrent how many concurrent users to be supported>

References

Documents Referred

Images referred

Design Document Template

1. Introduction

<Purpose of this document>

2. Architecture Design

<The architectural design is the design of the entire software system; it gives a high-level overview of the software system, such that the reader can more easily follow the more detailed descriptions in the later sections. It provides information on the decomposition of the system into modules (classes), dependencies between modules, hierarchy and partitioning of the software modules.

Draw use case diagram>

3. Activity Diagram

4. Database Design

<Draw an ER diagram

The database design specifies how the date of the software is going to be stored.>

Tables schemas
The complete (compliable) set of CREATE TABLE statements (and other SQL statements) that declare the database schema, including integrity constraints, domain specifications, assertions, and access privileges -- documented in a template with the intended use of each table and column.

This is a suggested template you may use:

Name of the table			
Description	This table describes…		
Attribute	**Description**	**Type**	**Examples of values**
Id	Id of a student	Integer	Between 1 and 999999999
Name	Name of a student	String	John
Primary Key			
Foreign Keys			

SQL queries:

Provide all SQL queries that you will need.

5. Graphical User Interface

<Design, in an organized way, the pictures of all the forms in the graphical user interface with a reference to the functional requirement it implements.
For each form in the graphical user interface, provide:
- The names of the controls and fields on that form,
- The names of the events, methods, or procedures that cause that form to be displayed, and
- The names of the events, methods, or procedures triggered by each control.>

6. References

<List of books, papers, URLs, tools that you consulted and used to design this document>

Test case template

Sample Test cases for all screens and functionalities

Screen Name: Flight Home Page

Test case id: 1

Test Name:
>Verify Launch

Purpose:
>Ensure that users can log into the application.

Pre-Conditon:
>None

Step	User Action	Expected Result	Actual Result	Status (Pass/Fail)
1	Launch the AUT	The Login screen appears		
2	Type in **tester1** as the username and **mercury** as the password			
3	Click the OK Button	Main window displays		
4	Close the application			

Post-Condition:
>None

Valid Test Data:
>N/A

Test case template

Sample Test cases for all screens and functionalities

Screen Name: Flight Home Page

Test case id: 1

Test Name:
        Verify Launch

Purpose:
        Ensure that users can log into the application.

Pre-Conditon:
        None

Step	User Action	Expected Result	Actual Result	Status (Pass/Fail)
1	Launch the AUT	The Login screen appears		
2	Type in **tester1** as the username and **mercury** as the password			
3	Click the OK Button	Main window displays		
4	Close the application			

Post-Condition:
        None

Valid Test Data:
        N/A

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

Course Schedule: November 2023 - April 2024

Department : Computer Science

Name/s of the Faculty : Dr. Faustina Joan S P, Ms. Geethanjali S.

Course Title : Mobile App Development for Android

Course Code : 19CS/ME/MA45

Shift : II

Week & No. of hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Nov 22 – 23, 2023 (Day Order 1 & 2) 2 Hrs	**Unit 1** **1.1 Introduction to Mobile App** Concept – Various App Development Platforms – Android - History, Versions	Lecture and Presentation	Smyth,Neil. *Android App Development Essentials*.1st ed. CreateSpace Independent Publishing Platform, 2014.	Discussion on Android Versions
Nov 24-30, 2023 (Day Order 1 to 6) 6 Hrs	**1.1 Introduction to Mobile App** Overview of Android architecture - Android Stack - Linux, Dalvik Virtual Machine, Core Libraries, Application Framework, Applications - OS vs iOS **1.2 Understanding an Android App** Creating an Example Android Application	Lecture and Presentation	Smyth,Neil. *Android App Development Essentials*.1st ed. CreateSpace Independent Publishing Platform, 2014.	Creating a simple Android App
Dec 1-7, 2023 (Day Order 1 to 6) 6 Hrs	**1.2 Understanding an Android App** Creating an Example Android Application - Anatomy of Android Application **Unit 2** **2.1 Activities, Intents, Fragments** Activities and Activity Lifecycle - Activity state changes – Example - Saving and restoring UI state	Lecture and Presentation	Smyth,Neil. *Android App Development Essentials*.1st ed. CreateSpace Independent Publishing Platform, 2014.	Exercise on Android Activity Life Cycle

Week & No. of hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Dec 8-9, 2023 (Day Order 1, 3) 2 Hrs	**2.1 Activities, Intents, Fragments** Intents - Explicit and Implicit Intents, Example	Lecture and Presentation	Deitel, Paul, Harvey Deitel and Abbey Deitel. *Android™ for Programmers: An App-Driven Approach*. 2nd ed. Prentice Hall, 2014. Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	Exercise on Intents
Dec 11-15, 2023 (Day Order 2 to 6) 5 Hrs	**2.1 Activities, Intents, Fragments** Fragments - Creating, Adding and managing fragments - Handling Fragment events, Example	Lecture and Presentation	Deitel, Paul, Harvey Deitel and Abbey Deitel. *Android™ for Programmers: An App-Driven Approach*. 2nd ed. Prentice Hall, 2014. Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	Exercise on Fragments
Dec 16 – 22, 2023 (Day Order 1 to 6) 6 Hrs	**2.2 Android User Interface** Creating views and view groups - Layouts - Linear, Table, Relative, Absolute**,** Frame, Scroll view - Changing screen orientation - Creating GUI – button, text, checkbox, radio, Menus	Lecture and Presentation	Deitel, Paul, Harvey Deitel and Abbey Deitel. *Android™ for Programmers: An App-Driven Approach*. 2nd ed. Prentice Hall, 2014. Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	Exercise on layouts and controls Exercise on Event Handling
Jan 3 – 6, 2024 (Day Order 1 to 4) 4 Hrs	**2.2 Android User Interface** Event Handling - ClickListener, FocusChangeListener, Touch Listener, MenuItemClickListener, LongClickListener	Lecture and Presentation	Deitel, Paul, Harvey Deitel and Abbey Deitel. *Android™ for Programmers: An App-Driven Approach*. 2nd ed. Prentice Hall, 2014. Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	**Component I:** Quiz

Week & No. of hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Jan 8 – 12, 2024	**CA Test II**			
Jan 13, 2024 (Day Order 1) 1 Hr	**Unit 3** **3.1 Persistent Storage** Files – Using application specific folders and files	Lecture and Presentation	Wei, Jason. Android database programming. Packt, 2012	Discussion
Jan 18 -20, 2024 (Day Order 4 to 6) 3 Hrs	**3.1 Persistent Storage** creating files, reading data from files, listing contents of a directory	Lecture and Presentation	Wei, Jason. Android database programming. Packt, 2012	Discussion
Jan 22-29, 2024 (Day Order 1 to 6) 6 Hrs	**3.1 Persistent Storage** Shared Preferences – Creating shared preferences, saving and retrieving data using Shared Preference Database **3.2 Database Programming** SQLite - SQLite classes, Cursor,	Lecture and Presentation	Wei, Jason. Android database programming. Packt, 2012	Exercise on Creating and Connecting to a Database
Jan 30 – Feb 2, 2024 (Day Order 1 to 4) 4 Hrs	**3.2 Database Programming** SQLite database, SQLite Queries – create, insert, select, update and delete - Connecting to a Remote database using MySQL/PHP	Lecture and Presentation	Wei, Jason. Android database programming. Packt, 2012	Exercise on Creating and Connecting to a Database
Feb 3, 2024 (Day Order 2) 1 Hr	**Unit 4** **4.1 Enhancing Android User Interface** Notification	Lecture and Presentation	Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	Exercise using dialogs, styles and themes
Feb 5- 6, 2024 (Day Order 5 to 6) 2 Hrs	**4.1 Enhancing Android User Interface** Action Bar – Dialogs	Lecture and Presentation	Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	Exercise using dialogs, styles and themes
Feb 7 – 14, 2024 (Day Order 1 to 6) 6 Hrs	**4.1 Enhancing Android User Interface** Search – Styles and Themes – Defining, using Inheritance, Android themes, Default styles and themes, Android SMS, Deploying App in Play Store – Multilingual	Lecture and Presentation	Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	Exercise using dialogs, styles and themes

Week & No. of Hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Feb 15 – 22, 2024 (Day Order 1 to 6) 6 Hrs	**4.2 Location Based Services** Using Location Manager, Location Provider - Using emulator with Location based services, Selecting a Location provider**,** Finding your current location – Best practice for location updates – Using proximity alerts	Lecture and Presentation	Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	Discussion
Feb 23 – 24, 2024 (Day Order 1 & 5) 2 Hrs	**4.2 Location Based Services** Using the Geocoder – Creating map based activities	Lecture and Presentation	Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	Discussion
Feb 26 – Mar 1, 2024 (Day Order 2 to 6) 5 Hrs	**Unit 5** **5.1 Advanced User Experience** Designing for every screen size and density – Ensuring Accessibility	Lecture and Presentation	Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	Discussion
Mar 2, 2024 (Day Order 1) 1 Hr	**5.1 Advanced User Experience** Introducing Android Text-to-Speech – Using Speech recognition	Lecture and Presentation	Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	**Component II:** Case Study Presentation
Mar 4 –8, 2024	**CA Test II**			
Mar 9 – 16, 2024 (Day 6 & Day Order 1 to 6)	**5.2 Case Study** Case study on recent apps	Lecture and Presentation	Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	Discussion
Mar 18 - 19, 2024 (Day Order 2 to 3)	**5.2 Case Study** Case study on recent apps	Lecture and Presentation	Meier Reto. *Professional Android 4 Application Development*. Wiley India, (Wrox), 2012	Discussion
Mar 20-22, 2024 (Day Order 4 to 6)	**REVISION**			

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

Course Schedule – July 2022 to November 2022

Department   : Computer Science

Name/s of the Faculty : Ms. Nandhini S, Ms. Rajalakshmi

Course Title   : Cyber Security

Course Code   : 19CS/GE/CS22

Shift   : II

Week & No. of hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Nov 22 – 23, 2023 (Day Order 1 & 2) 1Hr	**Unit 1** **1.1 Introduction to Information Security:** The History of Information Security-	Lecture and Presentation	Whitman, Michael E.,Whitman and Herbert J. Mattord. Principles of Information Security.Cengage Learning, 2011	Discussion
Nov 24-30, 2023 (Day Order 1 to 6) 2 Hr	What Is Security CNSS Security Model-The Need for Security: Business Needs First Threats- Attacks	Lecture/ Analogy	Whitman, Michael E.,Whitman and Herbert J. Mattord. Principles of Information Security.Cengage Learning, 2011	Chart Preparation
Dec 1-7, 2023 (Day Order 1 to 6) 2 Hr	**1.2 Cyber Security Fundamentals** Cyber Attack: Attackers	Lecture and Presentation	Information Security Handbook for Network Beginners.National Center of Incident Readiness and Strategy for Cybersecurity (NISC), The Government of JAPAN, Ver 2.11e	Puzzle
Dec 8-9, 2023 (Day	Hackers-Crackers- Crimes and Problems-Social Engineering Attacks	Lecture and Presentation	Information Security Handbook for Network Beginners.National Center	**Comp I :** MCQs

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Order 1, 3) 2 Hr			of Incident Readiness and Strategy for Cybersecurity (NISC), The Government of JAPAN, Ver 2.11e	
Dec 11-15, 2023 (Day Order 2 to 6) 1Hr	A Step-By-Step Guide for Strengthen Your Security.	Lecture and Presentation	Information Security Handbook for Network Beginners.National Center of Incident Readiness and Strategy for Cybersecurity (NISC), The Government of JAPAN, Ver 2.11e	Discussion
Dec 16 – 22, 2023 (Day Order 1 to 6) 2Hr	**2.1 Understanding The Cyber Security Landscape**: The Changing Face of Cybercriminals	Lecture/ Video Demo	Lawrence C. Miller Cyber security for dummies. CISSP	Presentation
Jan 3 – 6, 2024 (Day Order 1 to 4) 2 Hr	The Lifecycle of an Advanced Attack-Role of Malware	Lecture and Presentation	Lawrence C. Miller Cyber security for dummies. CISSP	Case Study
Jan 8 – 12, 2024	**C.A I Test**			

Week & No. of Hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Jan 13, 2024 (Day Order 1) 1Hr	**2.2 Cyber Terrorism** Terrorist Use of the Internet-	Lecture and Presentation	Lawrence C. Miller Cyber security for dummies. CISSP	Group Discussion
Jan 18 -20, 2024 (Day Order 4 to 6)	-	-	-	-
Jan 22-29, 2024 (Day Order 1 to 6) 2 Hr	Internet as Weapon, Wireless Threat **2.3 Laws and Regulatory Requirements:** Need of Cyber Law in India	Lecture and Analogy Lecture and Analogy	Lawrence C. Miller Cyber security for dummies. CISSP	Group Discussion
Jan 30 – Feb 2, 2024 (Day Order 1 to 4) 2 Hr	Laws Related to Information Security IT Act of India 2000	Lecture and Analogy	Lawrence C. Miller Cyber security for dummies. CISSP	Discussion
Feb 3, 2024 (Day Order 2)	-	-	-	-
Feb 5- 6, 2024 (Day Order 5 to 6)	-	-	-	-

Week & No of Hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Feb 7 – 14, 2024 (Day Order 1 to 6) 2 Hr	Copyright law in India- Intellectual property rights	Lecture and Presentation	Lawrence C. Miller Cyber security for dummies. CISSP	Discussion
Feb 15 – 22, 2024 (Day Order 1 to 6) 2 Hr	**3.1 Cryptography**: Foundations of Cryptology Cipher Methods	Lecture and Presentation	Whitman, Michael E.,Whitman and Herbert J. Mattord. Principles of Information Security.Cengage Learning, 2011	Presentation and Interaction
Feb 23 – 24, 2024 (Day Order 1 & 5) 1Hr	**3.2 Security Measures:** Basic-Passwords- Computers	Lecture and Presentation	Whitman, Michael E.,Whitman and Herbert J. Mattord. Principles of Information Security.Cengage Learning, 2011	**Comp II**: Assignment on Case Study related to Real-Time Cyber Security Issues
Feb 26 – Mar 1, 2024 (Day Order 2 to 6) 1Hr	**3.2 Security Measures:** Basic-Passwords-Computers Phones and Tablets	Lecture and Presentation	Whitman, Michael E.,Whitman and Herbert J. Mattord. Principles of Information Security.Cengage Learning, 2011	Group Discussion
Mar 2, 2024 (Day Order 1) 1 Hr	Social Media	Lecture and Presentation	Whitman, Michael E.,Whitman and Herbert J. Mattord. Principles of Information Security.Cengage Learning, 2011	Questionnaire

Week & No. of Hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Mar 4 –8, 2024	**C.A. II Test**			
Mar 9 – 16, 2024 (Day 6 & Day Order 1 to 6) 2 Hr	Chatting and Phone Calls-	Lecture and Presentation	Whitman, Michael E.,Whitman and Herbert J. Mattord. Principles of Information Security.Cengage Learning, 2011	Seminar on Chatting and Phone call
Mar 18 - 19, 2024 (Day Order 2 to 3) 1 Hr	Internet Banking	Lecture and Presentation	Whitman, Michael E.,Whitman and Herbert J. Mattord. Principles of Information Security.Cengage Learning 2011	Seminar on Internet Banking
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