

SYLLABUS FOR ACADEMIC SESSION(2021-2022)

CLASS –XII

PHYSICS

CHAPTER NO.	TOPIC
1	ELECTRIC CHARGES AND FIELDS
2	ELECTROSTATIC POTENTIAL AND CAPACITANCE
3	CURRENT ELECTRICITY
4	MOVING CHARGES AND MAGNETISM
5	MAGNETISM AND MATTER
6	ELECTROMAGNETIC INDUCTION
7	ALTERNATING CURRENT
8	ELECTROMAGNETIC WAVES
9	RAY OPTICS AND OPTICAL INSTRUMENTS
10	WAVE OPTICS
11	DUAL NATURE OF RADIATION AND MATTER
12	ATOMS
13	NUCLEI
14	SEMICONDUCTOR ELECTRONICS

SYLLABUS DISTRIBUTION

PRE-TERM -I: CHAPTERS: 1,2.

PRE-TERM – II: CHAPTERS: 3,4

FIRST TERM: CHAPTERS: 1,2,3,4,5,6,7,8.

SECONDPRE-TERM-I:CHAPTERS:9,10

PRE-BOARD- I: CHAPTERS: Entire syllabus

PRE-BOARD-II: CHAPTERS: Entire syllabus

PHYSICAL EDUCATION

SYLLABUS (2021-2022)

CLASS XII

FIRST TERM

PRE-TERM I:

Unit 1: Planning in sports

Unit 2: Sports & nutrition

PRE-TERM 2:

Unit 3: Yoga & lifestyle

Unit 4: Physical education and sports for CWSN

HALF-YEARLY:

Unit 1: Planning in sports

Unit 2: Sports & nutrition

Unit 3: Yoga & lifestyle

Unit 4: Physical education and sports for CWSN

Unit 5: Children & women in sports

Unit 6: Test and measurement in sports

SECOND TERM

PRE-BOARD I & II:

Unit 1: Planning in sports

Unit 2: Sports & nutrition

Unit 3: Yoga & lifestyle

Unit 4: Physical education and sports for CWSN

Unit 5: Children & women in sports

Unit 6: Test and measurement in sports

Unit 7: Physiology & injuries in sports
Unit 8: Biomechanics & sports
Unit 9: Psychology & sports
Unit 10: Training in sports

SYLLABUS 2021-22
MATHEMATICS
CLASS – 12

PRE TERM - 1

1. DERIVATIVES CLASS XI
2. MATRICES
3. DETERMINANTS

PRE TERM - 2

1. RELATIONS AND FUNCTIONS
2. INVERSE TRIGONOMETRIC FUNCTIONS

HALF YEARLY EXAMINATION

1. RELATIONS AND FUNCTIONS
2. INVERSE TRIGONOMETRIC FUNCTIONS
3. MATRICES
4. DETERMINANTS
5. CONTINUITY AND DIFFERENTIABILITY
6. APPLICATION OF DERIVATIVES
7. INTEGRALS
8. LINEAR PROGRAMMING

PRE – BOARD I, II

1. RELATIONS AND FUNCTIONS
2. INVERSE TRIGONOMETRIC FUNCTIONS
3. MATRICES
4. DETERMINANTS
5. CONTINUITY AND DIFFERENTIABILITY
6. APPLICATION OF DERIVATIVES
7. INTEGRALS
8. LINEAR PROGRAMMING
9. APPLICATION OF INTEGRALS
10. DIFFERENTIAL EQUATIONS
11. VECTOR ALGEBRA
12. THREE DIMENSIONAL GEOMETRY
13. PROBABILITY

NOTE: ACTIVITIES AND ASSIGNMENTS BASED ON AIL(ART INTEGRATED LEARNING) WILL BE CARRIED OUT EVERY MONTH

Chemistry syllabus 2021-22
(Class 12th C)

CHAPTER NO.	CHAPTER NAME
1	Solid State(Art Integration)
2	Solutions
3	Electrochemistry(Art Integration)
4	Chemical Kinetics
5	Surface Chemistry(Art Integration)
6	p-block elements
7	d & f-block elements(Art Integration)
8	Coordination compounds

9	Haloalkanes and haloarenes(Art Integration)
10	Alcohols, phenols and ethers
11	Aldehyde, ketones and carboxylic acids
12	Amines
13	Biomolecules(Art Integration)

PRE TERM-1(May):-Chapters 9&10(Upto Phenols)

PRE TERM-2(July):-Chapters 10(Ethers) &11

HALF YEARLY(Sept) :- Chapters:9 to 13

SECOND PRE TERM1(Nov): Chapters: 1 to 3

1st Pre-Board (December-2021): Entire Syllabus

2nd Pre-Board (January-2022): Entire Syllabus

Note: Art Integration work is also included and mentioned in front of the chapters.

MOUNT ST. MARY'S SCHOOL
SYLLABUS 2021-22
Classes: XII
Subject: Biology

PRETERM 1	CHAPTER 1,2, 3,
PRETERM 2	CHAPTER 4, 5, 6 (till DNA replication)
HALFYEARLY	CHAPTER 1,2, 3, 4, 5, 6, 7, 8
SECOND PRETERM 1	CHAPTER 9, 10, 11
PRE-BOARD I	ENTIRE SYLLABUS
PRE-BOARD II	ENTIRE SYLLABUS

PLEASE NOTE*:

- *No Second Pre- term 2 for class 12*

MOUNT ST. MARY'S SCHOOL SYLLABUS FOR ECONOMICS SESSION 2021-2022			
XII	PRE-TERM 1	1. National income and related aggregates 2. Money and banking	1. A 3-d model on national income identities.
	PRE-TERM 2	1. Income and employment 2. Government budget	1. PPT on the topic "alternate sources of energy in India"
	HALF YEARLY	Macroeconomics 1. National income and related aggregates 2. Money and banking 3. Income and employment 4. Government budget 5. Balance of payments Indian Economic Development 1. Poverty 2. Unemployment 3. Rural development	

		4. Sustainable development	
	PRE-TERM3	1. Infrastructure 2. Human capital formation	1. Debate “Vocational education should be made mandatory at higher secondary level” 2. Cartoon story on the difference of public and private health infrastructure.
	PRE-BOARD 1	Entire syllabus as per CBSE board	
	PRE-BOARD 2	Entire syllabus as per CBSE board	

Informatics Practices (065) -Class 12

Preterm-1(First Term)

Database Query using SQL

Preterm-2 (First Term)

Data Structures -Series and Data Frames in Pandas

Half Yearly Exam

Database Query using SQL

Data Structures -Series and Data Frames in Pandas

Societal Impacts

Preterm-1 (Second Term)

Networks

Data Visualisation

PreBoard-1

Full Course

PreBoard-2

Full Course

Mount St. Mary’s School
Revised Syllabus 2021-22
Class: XII
Subject: Accountancy

PRE TERM 1:

Part C-

Chapter 1 – Financial Statements of a Company

Chapter 2- Financial Statements Analysis

Chapter 3- Comparative & Common Size Statements

Chapter 4 – Accounting Ratios

Chapter 5 – Cash Flow Statement

PRE TERM 2:

Chapter 5 – Cash Flow Statement

Chapter 1- Financial Statements of Not For Profit Organisations

Half Yearly:

Part C-

Chapter 1 to 5

Part A-

Chapter 1- Financial Statements of Not For Profit Organisations

Chapter 2 – Fundamentals of Partnership

Chapter 3- Goodwill: Nature & Valuation

Chapter 4- Change in Profit Sharing Ratio

Chapter 5- Admission of a Partner

Chapter 6- Retirement of a Partner

PRE TERM 3:

Chapter 7- Death of a Partner

Chapter 8- Dissolution of Partnership Firm

Final Term:

Part C

Part A

Part B-

Chapter 8- Accounting for Share Capital

Chapter 9- Issue of Debentures

Chapter 10- Redemption of Debentures

**Mount St. Mary's School
Revised Syllabus 2021-22
Class: XII
Subject: Business Studies**

Pre Term 1:

1. Nature and Significance of Management
2. Principles of Management
4. Planning

Pre Term 2:

- 3. Business Environment
- 5. Organising

Half Yearly:

- Chapters 1-5
- 6. Staffing
- 7. Directing
- 8. Controlling

Pre Term 3:

- 9. Financial Management
- 12. Consumer Protection

Final Term:

- Chapter 1 to 9
- 10. Financial Markets
- 11. Marketing Management
- 12. Consumer Protection

CLASS XII
SUBJECT: POLITICAL SCIENCE (CODE NO. 028)
SYLLABUS 2021-2022

BOOK (PART A):

CONTEMPORARY WORLD POLITICS

Ch-1 The Cold War Era

Topics: Cold War and Non-aligned Movement Emergence of two power blocs/Bipolarity, Non-aligned Movement (NAM).

Ch-2 The End of Bipolarity

Topics: Disintegration of Soviet Union, Unipolar World, Middle East Crisis – Afghanistan, Gulf War, Democratic Politics and Democratization – CIS and the 21st Century (Arab Spring).

Ch- 4 Alternative Centres of Power (Old Name)

New Centres of Power (New name)

Topics: Organizations: European Union, ASEAN, SAARC, BRICS. Nations: Russia, China, Israel, India).

Ch-5 Contemporary South Asia (Old name)

South Asia and the Contemporary World (New Name)

Topics: Conflicts and efforts for Peace and Democratization in South Asia: Pakistan, Nepal, Bangladesh, Sri Lanka, Maldives.

Ch-6 International Organizations (Old Name)

United Nations and its Organizations (New Name)

Topics: Principal Organs, Key Agencies: UNESCO, UNICEF, WHO, ILO, Security Council and the Need for its Expansion

Ch-9 Globalization

Topics: Globalization: Meaning, Manifestations and Debates

BOOK PART B:

POLITICS IN INDIA SINCE INDEPENDENCE

Ch- 1 Challenges of Nation-Building

Topics: Nation and Nation Building • Sardar Vallabh Bhai Patel and Integration of States • Legacy of Partition: Challenge of Refugee, Resettlement, Kashmir Issue, Nehru's Approach to Nation – Building • Political Conflicts over Language and Linguistic Organization of States.

Ch-3 Politics of Planned Development (Old Name)

Planned Development (New Name)

Topics: National Development Council, NITI Aayog

Ch- 4 India's External Relationships (Old Name)

India's Foreign Policy (New Name)

Topics: Principles of Foreign Policy, India's Changing Relations with Other Nations: US, Russia, China, Israel;

Ch 5 Challenges to the restoration of then congress system (Old Name)

Parties and the Party Systems in India (New Name)

Topics: Congress System • Bi-party System • Multi-party Coalition System.

Ch-6 The Crisis of Democratic Order (Old Name)

Democratic Resurgence (New Name)

Topics: Jai Prakash Narayan and Total Revolution • Ram Manohar Lohiya and Socialism • Pandit Deendayal Upadhyaya and Integral Humanism • National Emergency • Democratic Upsurges– Participation of the Adults, Backwards and Youth

Ch-9 Recent Developments in Indian Politics (Old Name)

Indian Politics: Trends and Developments (New Name)

Topics: Era of Coalitions: National Front, United Front, United Progressive Alliance [UPA] – I & II, National Democratic Alliance [NDA] – I, II, III& IV, Issues of Development and Governance

Project Work: 20 Marks

Details of Project Work

1. The Project work will be implemented for 20 Marks.
2. Out of 20 marks, 10 marks are to be allotted to viva voce and 10 marks for project work.
3. For class XII, the evaluation for 20 marks project work should be done jointly by the internal as well as the external examiners.
4. **The Project can be made on any of the topics given in the syllabus.**

EXAMINATION SYLLABUS

TERM -I EXAM (PRE-TERM- 2)

PART A

CH-1. The Cold War Era

Ch-2 The End of bipolarity

PART -B

Ch-1 Challenges of Nation-Building

Ch-3 Politics of Planned Development

HALF YEARLY EXAMINATION

PART A

CH-1. The Cold War Era

Ch-2 The End of bipolarity

Ch-4 New Centres of Power (New Name)

Ch-5 South Asia and the Contemporary World (New Name)

PART B

Ch-1 Challenges of Nation-Building

Ch-3 Politics of Planned Development

Ch-4 India's Foreign Policy (New Name)

Ch-5 Parties and the Party Systems in India (New Name)

TERM -II EXAM (PRE-TERM -1)

PART A

Ch-6 United Nations and its Organizations (New Name)

PART B

Ch-6 Democratic Resurgence (New Name)

PRE -BOARD -I

PART A

CH- 9 Globalization

(Including all the previous chapters of book-Part A)

PART B

Ch-9 Indian Politics: Trends and Developments (New Name)

(Including all the previous chapters of book-Part B)

PRE-BOARD II

Full Syllabus of Both Books Part A and Part B

**CLASS XII
SUBJECT - HISTORY
SYLLABUS (2021-2022)
(CODE NO. 027)**

Themes in Indian History Part-I (Units 1 – 4)

Theme 1: Bricks, Beads and Bones Theme 2:

Kings, Farmers and Towns Theme 3: Kinship,

Caste and Class

Theme 4: Thinkers, Beliefs and Buildings

Themes in Indian History Part-II (Units 5 – 9)

Theme 5: Through the Eyes of Travelers (THIS CHAPTER HAS

BEEN DELETED FROM THE SYLLABUS)

Theme 6: The Bhakti-Sufi Traditions

Theme 7: An Imperial Capital: Vijayanagara

Theme 8: Peasants, Zamindars and the State (THIS CHAPTER HAS
BEEN DELETED FROM THE SYLLABUS)

Theme 9: Kings and Chronicles

Themes in Indian History Part-III (Units 10 – 15)

Theme 10: Colonialism and the Countryside (Pages 275-285 has been Deleted) Theme

11: Rebels and the Raj

Theme 12: Colonial Cities (THIS CHAPTER HAS BEEN DELETED FROM THE SYLLABUS)

Theme 13: Mahatma Gandhi and the Nationalist Movement

Theme 14: Understanding Partition (THIS CHAPTER HAS BEEN DELETED FROM THE SYLLABUS)

Theme 15: Framing the Constitution

LIST OF MAP WORK

Book 1

1. Mature Harappan sites: • Harappa, Banawali, Kalibangan, Balakot, Rakhigarhi, Dholavira, Nageshwar, Lothal, Mohenjodaro, Chanhudaro, KotDiji.
2. Mahajanapada and cities : • Vajji, Magadha, Kosala, Kuru, Panchala, Gandhara, Avanti, Rajgir, Ujjain, Taxila, Varanasi.
3. Distribution of Ashokan inscriptions: • Kushanas, Shakas, Satavahanas, Vakatakas, Guptas • Cities/towns: Mathura, Kannauj, Puhar, Braghukachchha • Pillar inscriptions - Sanchi, Topra, Meerut Pillar and Kaushambi. • Kingdom of Cholas, Cheras and Pandyas.
4. Important kingdoms and towns: • Kushanas, Shakas, Satavahanas, Vakatakas, Guptas • Cities/towns: Mathura, Kanauj, Puhar, Braghukachchha, Shravasti, Rajgir, Vaishali, Varanasi, Vidisha
5. Major Buddhist Sites: • Nagarjunakonda, Sanchi, Amaravati, Lumbini, Nasik, Bharhut, Bodh Gaya, Shravasti, Ajanta.

Book 2

1. Bidar, Golconda, Bijapur, Vijayanagar, Chandragiri, Kanchipuram, Mysore, Thanjavur, Kolar, Tirunelveli, Quilon
2. Territories under Babur, Akbar and Aurangzeb: • Delhi, Agra, Panipat, Amber, Ajmer, Lahore, Goa

Book 3

1. Territories/cities under British Control in 1857: • Punjab, Sindh, Bombay, Madras Fort St. David, Masulipatam, Berar, Bengal, Bihar, Orissa, Avadh, Surat, Calcutta, Dacca, Patna, Benaras, Allahabad and Lucknow.
2. Main centres of the Revolt of 1857: • Delhi, Meerut, Jhansi, Lucknow, Kanpur, Azamgarh, Calcutta, Benaras, Gwalior, Jabalpur, Agra, Avadh.
Important centres of the National Movement: • Champaran, Kheda, Ahmedabad, Benaras, Amritsar, Chauri Chaura, Lahore, Bardoli, Dandi, Bombay (Quit India Resolution), Karachi.

EXAMINATION SYLLABUS

PRE TERM 1

Theme 1 : Bricks, Beads and Bones Theme 2

: Kings, Farmers and Towns

PRE TERM 2

Theme 3 : Kinship, Caste and Class

Theme 4 : Thinkers, Beliefs and Buildings

HALF YEARLY EXAMINATION

Theme 1: Bricks, Beads and Bones Theme 2:

Kings, Farmers and Towns Theme 3: Kinship,

Caste and Class

Theme 4: Thinkers, Beliefs and Buildings Theme 6:

The Bhakti-Sufi Traditions

Theme 7: An Imperial Capital: Vijayanagara

SECOND TERM PRETERM 1

Theme 9: Kings and Chronicles

Theme 11: Rebels and the Raj

PRE BOARD I & II

Entire syllabus including themes 13 and 15 as per CBSE guidelines

PROJECT WORK

One Topic to be chosen from the prescribed syllabus

The marks will be allocated under the following heads:

1. Project Synopsis	2 Marks
2. Data/Statistical analysis/Map work	3 Marks
3. Visual/overall presentation	5 Marks
4. Analysis/explanation and interpretation	5 Marks
5. Bibliography	1 Mark
6. Viva	4 Marks
Total	20 Marks

Computer Science CLASS-XII Code No.(083) 2021-22

Term I

Unit I: Computational Thinking and Programming - 2

Revision of the basics of Python covered in Class XI.

Functions: scope, parameter passing, mutable/immutable properties of data objects, passing strings, lists, tuples, dictionaries to functions, default parameters, positional

parameters, return values, functions using libraries: mathematical and string functions.

File handling: Need for a data file, Types of file: Text files, Binary files and CSV (Comma separated values) files.

Text File: Basic operations on a text file: Open (filename – absolute or relative path, mode), Close a text file, Reading and Manipulation of data from a text file, Appending data into a text file, standard input / output and error streams, relative and absolute paths.

Binary File: Basic operations on a binary file: Open (filename – absolute or relative path, mode), Close a binary file, Pickle Module – methods load and dump; Read, Write/Create, Search, Append and Update operations in a binary file.

CSV File: Import csv module, functions – Open, Close a csv file, Read from a csv file and Write into a csv file using csv.reader () and csv.writerow().

Using Python libraries: Import Python libraries.

Data-structures: Lists as covered in Class XI, Stacks – Push, Pop using a list.

Unit III: Database Management

Database Concepts: Introduction to database concepts and its need.

Relational data model: Concept of domain, relation, tuple, attribute, degree, cardinality, key, primary key, candidate key, alternate key and foreign key;

Structured Query Language:

General Concepts: Advantages of using SQL, Data Definition Language and Data Manipulation Language;

Data Types: number / decimal, character / varchar / varchar2, date; SQL commands covered in class XI (2019-20)

SELECT, DISTINCT, FROM, WHERE, IN, BETWEEN, LIKE, NULL / IS NULL, ORDER BY, GROUP BY, HAVING; SQL functions: SUM (), AVG (), COUNT (), MAX () and MIN ();

Joins: equi-join and natural join

Term II

Unit II: Computer Networks

Evolution of Networking: ARPANET, Internet, Interspace Different ways of sending data across the network with reference to switching techniques (Circuit and Packet switching).

Data Communication terminologies: Concept of Channel, Bandwidth (Hz, KHz, MHz) and Data transfer rate (bps, Kbps, Mbps, Gbps, Tbps).

Transmission media: Twisted pair cable, coaxial cable, optical fiber, infrared, radio link, microwave link and satellite link.

Network devices: Modem, RJ45 connector, Ethernet Card, Router, Switch, Gateway,

WiFi card. Network Topologies and types: Bus, Star, Tree, PAN, LAN, WAN, MAN.

Network Protocol: TCP/IP, File Transfer Protocol (FTP), PPP, HTTP, SMTP, POP3, Remote Login (Telnet) and Internet, Wireless / Mobile Communication protocol such as GSM, GPRS and WLL. Mobile Telecommunication Technologies: 1G, 2G, 3G, 4G and 5G; Mobile processors; Electronic mail protocols such as SMTP, POP3, Protocols for Chat and Video Conferencing: VoIP, Wireless technologies such as Wi-Fi and WiMax Network Security Concepts: Threats and prevention from Viruses, Worms, Trojan horse, Spams Use of Cookies, Protection using Firewall, https; India IT Act, Cyber Law, Cyber Crimes, IPR issues, hacking.

Introduction To Web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML); Hyper Text Transfer Protocol (HTTP); Domain Names; URL; Website, Web browser, Web Servers; Web Hosting.

Interface of Python with an SQL database - Connecting SQL with Python - Creating Database connectivity Applications - Performing Insert, Update, Delete queries - Display data by using fetchone(), fetchall(), rowcount

Practical File Completion.

Project Work, Project Documentation

ENGLISH SYLLABUS- CLASS XII- 2021-22

Pre - Term 1

Comprehension

Short Writing Skills - Notice, Classified Advertisements

Literature - 1. The Last Lesson

2. A Thing of Beauty

Pre-Term 2

Comprehension

Short Writing Skills - Invitations, Poster

Literature - 1. Lost Spring

2. Keeping Quiet

Term 1 Syllabus

Comprehension

Writing skills - All

Literature

1. The Last Lesson

2. Lost Spring

3. The Rattrap

4. Indigo

5. My Mother at 66

6. Keeping Quiet

7. A Thing of Beauty

8. The Third Level

9. The Enemy

10. On the Face of it

11. Evans Tries an O Level

12. Aunt Jennifer's Tigers

Pre-Term 3 Syllabus

Comprehension

Elementary School Classroom in a Slum

Pre-Board 1 Syllabus

Term 1 Syllabus

Should Wizard Hit Mommy

Deep Water

Elementary School Classroom in a Slum