SUPPORTING DOCUMENTS FOR 1.2.2

NUMBER OF ADD ON /CERTIFICATE PROGRAMS OFFERED DURING THE YEAR

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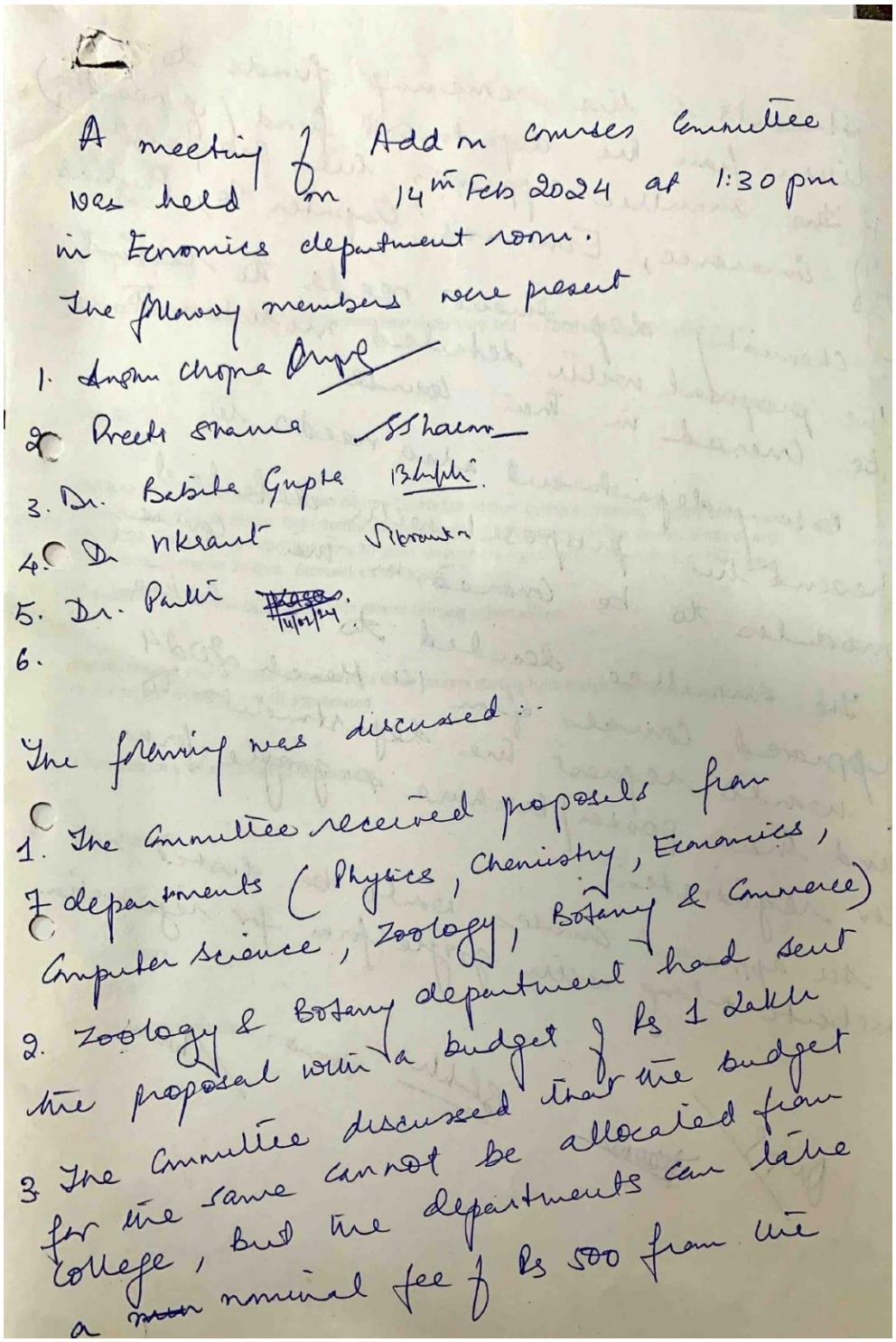
SANCTION OF ALL FIVE ADD-ON COURSES BY OF ADD-ON COURSES COMMITTEE



A meeting of Add on courses Committee was held on 14th Feb 2024 at 1:30 pm in Economics department room.

The following members were present

1. Anshu Chopra
2. Preeti Sharma
3. Dr. Babita Gupta
4. Dr. Nkrant
5. Dr. Palki 14/2/24.
6.

The following was discussed :-

1. The Committee received proposals from 7 departments (Physics, Chemistry, Economics, Computer Science, Zoology, Botany & Commerce)
2. Zoology & Botany department had sent the proposal with a budget of Rs 1 lakh
3. The Committee discussed that the budget for the same cannot be allocated from College, but the departments can take a nominal fee of Rs 500 from the

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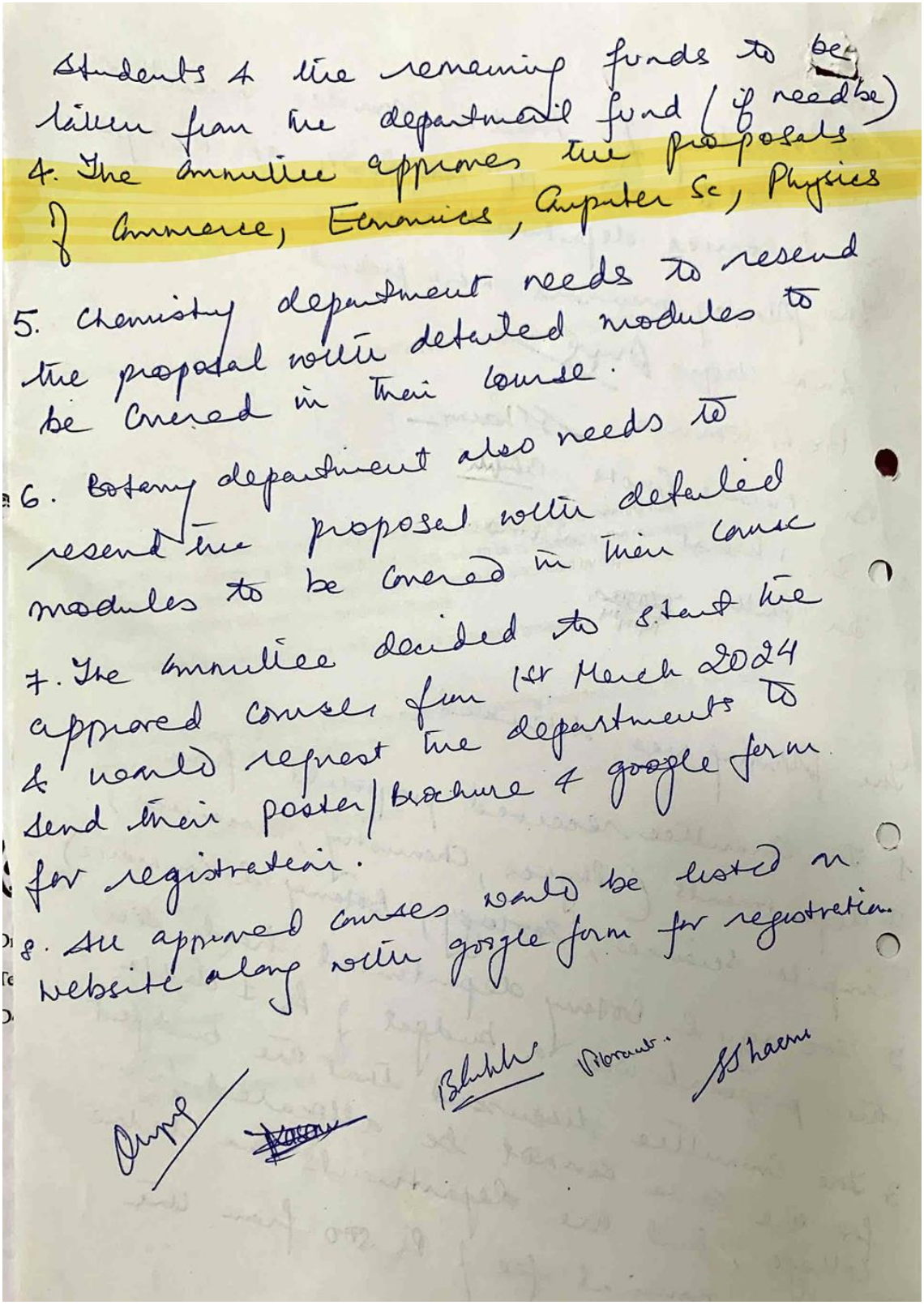


Students & the remaining funds to be taken from the departmental fund (if needbe)

4. The committee approves the proposals of Commerce, Economics, Computer Sc, Physics

5. Chemistry department needs to resend the proposal with detailed modules to be covered in their course.

6. Botany department also needs to resend the proposal with detailed modules to be covered in their course

7. The committee decided to start the approved courses from 1st March 2024 & would request the departments to send their poster/brochure & google form for registration.

8. All approved courses would be listed in website along with google form for registration.

PERMISSION TO CONDUCT ADD-ON COURSES

To

The Principal

Shivaji College

Raja Garden

New Delhi

29/02/24

- A.O. to A.C.A.C
- Convener I.Q.A.C
- 29/2/24

Subject: Request for Approval to Commence Interdisciplinary Add-on Courses from 9th March 2024

Dear Sir,

This is to bring to your notice that the Add-on Course Committee, during its meeting held on 14th February 2024 has shortlisted five interdisciplinary courses to be conducted in the months of March and April 2024. These courses, each spanning 30 hours duration are organised by departments of Chemistry , Commerce, Computer Science , Economics and Physics.

The courses aim to provide students with diverse learning opportunities.

I kindly request your approval to commence these courses starting from March 9th, 2024. Your support in this matter would be greatly appreciated.

Thank you for your attention to this request .

Warm Regards

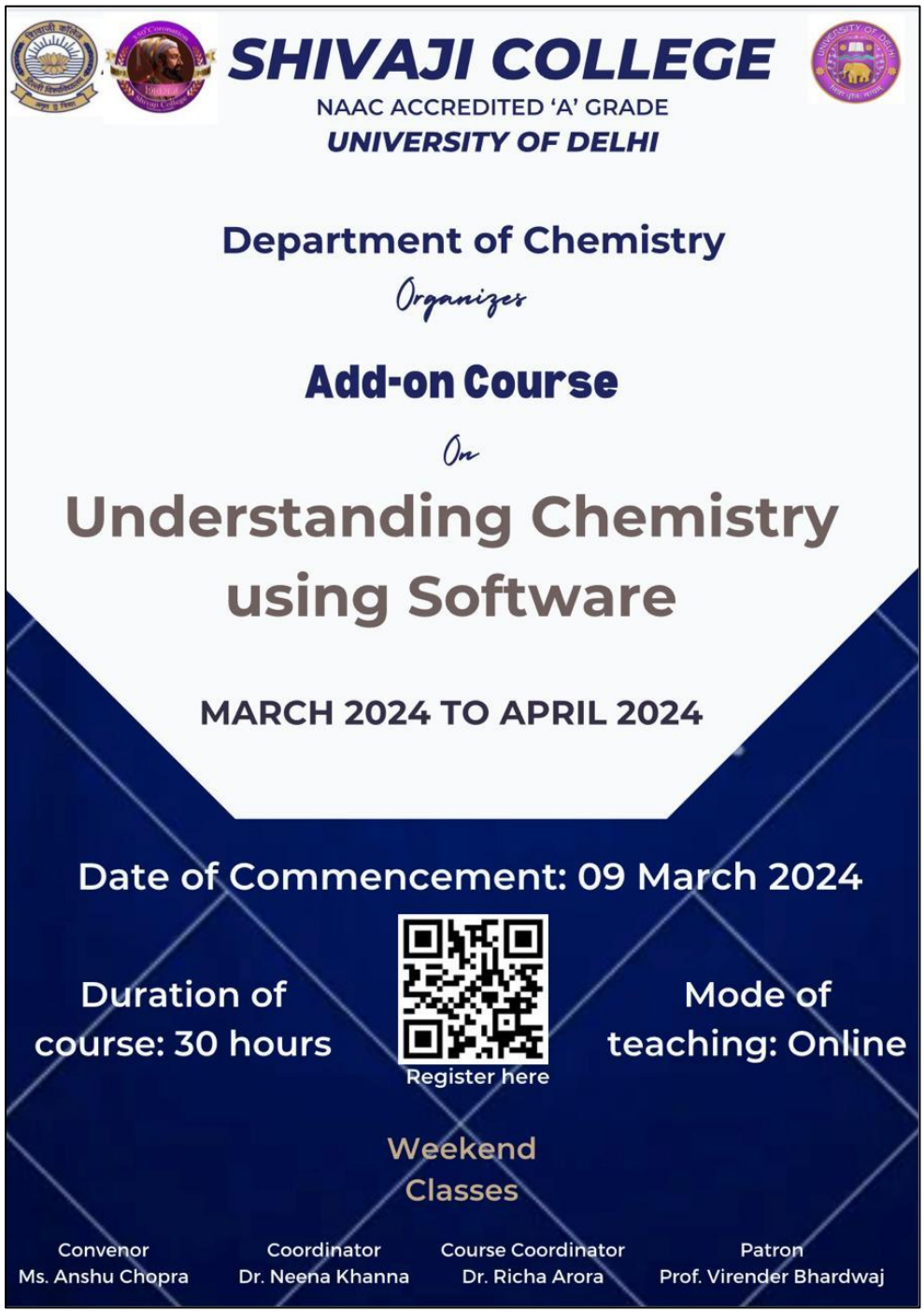
Anshu Chopra

Convenor

Add on Course Committee

POSTER OF ADD-ON COURSE 'UNDERSTANDING CHEMISTRY USING SOFTWARE' OFFERED BY DEPARTMENT OF CHEMISTRY

ADD-ON COURSE -I



BROCHURE OF THE COURSE- 'UNDERSTANDING CHEMISTRY USING SOFTWARE'

ADD-ON COURSE -I

Shivaji College

University of Delhi
(Accredited with grade "A" by NAAC)

Department of Chemistry
Organizes
Value-added Course
on
"Understanding Chemistry Using Software"

March - April 2024

About Department

Chemistry is often referred to as the 'central science' because an understanding of materials at a molecular level underpins research and development from Biology to Solid State Physics. The Department of Chemistry of Shivaji College has dedicated teaching and non-teaching staff who work tirelessly to achieve excellence in both teaching and research.

Course Objective

This course would help students to better understand the basics of Chemistry and would be an added advantage for them since molecular modelling is widely used by scientists around the world to solve scientific problems including drug designing for prevalent diseases.

Course Content

Module 1: Hands-on session on MolView: 2D and 3D molecule builder with different representations, gives details of the molecule along with spectra available .

Module 2: Hands-on session on Jmol: 3D molecular structure building involving animations, vibrations, surfaces, orbitals, schematic shapes for secondary structures in biomolecules, measurements of bond lengths, angles and dihedral angles.

Module 3: Hands-on session on Avogadro: A molecule editor and visualizer used for molecular modeling, bioinformatics, materials science, and related areas.

Module 4: Hands-on session on ArgusLab: Molecule modeling, graphics and drug design software involving basic geometry optimization and energy calculations, surfaces, ESP plots, visualization of HOMO and LUMO, structural measurements.

Link for registration:
Click here

Scan here

Last date of Registration:
05.03.2024

Certificates will be issued to participants based on their assessment and attendance.

Points to remember:

- The participants must fill the registration form to enroll in the course.
- The participants must have a desktop or laptop with good internet connection.
- Under-graduate science students with basic knowledge of Chemistry are eligible to apply.
- No registration fee.
- Classes will he held in online mode.

Patron
Prof. Virender Bhardwaj

Convenor
Ms. Anshu Chopra

Co-Convenor
Ms. Preeti Sharma

Coordinator
Dr. Neena Khanna

Course Coordinator
Dr. Richa Arora

For further query, write an e-mail at chemistry@shivaji.du.ac.in

SYLLABUS OF THE ONLINE ADDON COURSE UNDERSTANDING CHEMISTRY USING SOFTWARE

ADD-ON COURSE -I

VALUE ADDED COURSE

PROPOSAL SUBMITTED BY: DEPARTMENT OF CHEMISTRY

Course Name: Understanding Chemistry using Software

Mode: Online

Duration: 30 hrs (Monday/Saturday: 7 pm to 9 pm, Thursday: 7 pm to 8 pm, Sunday: 11:00 am to 2:00 pm)

Eligibility: All Students studying Chemistry as one of the subjects

Batch Size: 50

Date of Commencement: 9th March 2024

Course Convenor: Dr. Neena Khanna (Associate Professor and Teacher-In-Charge, Department of Chemistry)

Course Coordinator: Dr. Richa Arora (Assistant Professor, Department of Chemistry)

Resource Person: Dr. Richa Arora (Assistant Professor, Department of Chemistry)

Faculty who designed the course: Dr. Richa Arora (Assistant Professor, Department of Chemistry)

Organising Team Faculty Member: Dr. Richa Arora (Assistant Professor, Department of Chemistry)

Learning Objectives:

The students will learn to use online Molecular Modeling software MolView, JMol, Avogadro and ArgusLab involving basic structure drawing and calculation of energy and properties like geometrical properties, bond order, charges, and HOMO, LUMO and ESP plots.

Learning Outcomes:

This course would help students to better understand the basics of Chemistry and would be an added advantage for them since molecular modelling is widely used by scientists around the world to solve scientific problems including drug designing for prevalent diseases.

Course Contents:
Module 1: Hands-on session on MolView

2D and 3D molecule builder with different representations, gives details of the molecule along with spectra available **(6 Hours)**

Module 2: Hands-on session on JMol

3D molecular structure building involving animations, vibrations, surfaces, orbitals, schematic shapes for secondary structures in biomolecules, measurements of bond lengths, angles and dihedral angles **(7 Hours)**

Cont'd

ADD-ON COURSE -I

Module 3: Hands-on session on Avogadro

A molecule editor and visualizer used for molecular modeling, bioinformatics, materials science, and related areas. **(7 hours)**

Module 4: Hands-on session on ArgusLab

Molecule modeling, graphics and drug design software involving basic geometry optimization and energy calculations, surfaces, ESP plots, visualization of HOMO and LUMO, structural measurements **(10 Hours)**

RA
Dr. Richa Arora
(Course Coordinator)

SCHEDULE OF ONLINE ADDON COURSE ON

ADD-ON COURSE -I

'UNDERSTANDING CHEMISTRY USING SOFTWARE'- DURATION 30 HOURS

FROM 9TH MARCH 2024 TO 21ST APRIL 2024

Schedule

Add-on Course on "Understanding Chemistry using Software" by Department of Chemistry

Even Semester 2023-24 (09.03.2024 to 21.04.2024

S.No.	Name of the Resource Person	Affiliation of the Resource Person	Topics Covered	No. of hours
1.	Dr. Richa Arora	Assistant Professor, Department of Chemistry, Shivaji College, University of Delhi	Introduction of the course, basics of molecular modeling and installation of software	02
2.	Dr. Richa Arora	Assistant Professor, Department of Chemistry, Shivaji College, University of Delhi	**Hands-on session on MolView:** 2D and 3D molecule building with different representations, details of the molecule along with spectra available, visualisation of biomolecules	06
3.	Dr. Richa Arora	Assistant Professor, Department of Chemistry, Shivaji College, University of Delhi	Download and analyze biomolecules from PDB data bank	02
4.	Dr. Richa Arora	Assistant Professor, Department of Chemistry, Shivaji College, University of Delhi	**Hands-on session on JMol:** 3D molecular structure building involving animations, surfaces, orbitals, schematic shapes for secondary structures in biomolecules, measurements of bond lengths, angles and dihedral angles	06
5.	Dr. Richa Arora	Assistant Professor, Department of Chemistry, Shivaji College, University of Delhi	**Hands-on session on Avogadro:** Molecule building, energy calculations of molecules, measurements of molecules, visualisation and calculation of best docking pose of biomolecules-ligand	06
6.	Dr. Upasana Issar	Assistant Professor, Department of Chemistry, Kalindi College, University of Delhi	**Hands-on session on ArgusLab:** Molecule building, basic geometry optimization and energy calculations	02
7.	Dr. Richa Arora	Assistant Professor, Department of Chemistry, Shivaji College, University of Delhi	**Hands-on session on ArgusLab:** Surfaces, ESP plots, visualization of HOMO and LUMO, structural measurements	05
8.	Dr. Richa Arora	Assistant Professor, Department of Chemistry, Shivaji College, University of Delhi	Final Examination	01

RA
Dr. Richa Arora
(Course Coordinator)

(Course Convenor)
Dr. Neena Khanna
NKhanna

REPORT ON ADD-ON COURSE ON 'UNDERSTANDING CHEMISTRY USING SOFTWARE', OFFERED BY DEPARTMENT OF CHEMISTRY

Report

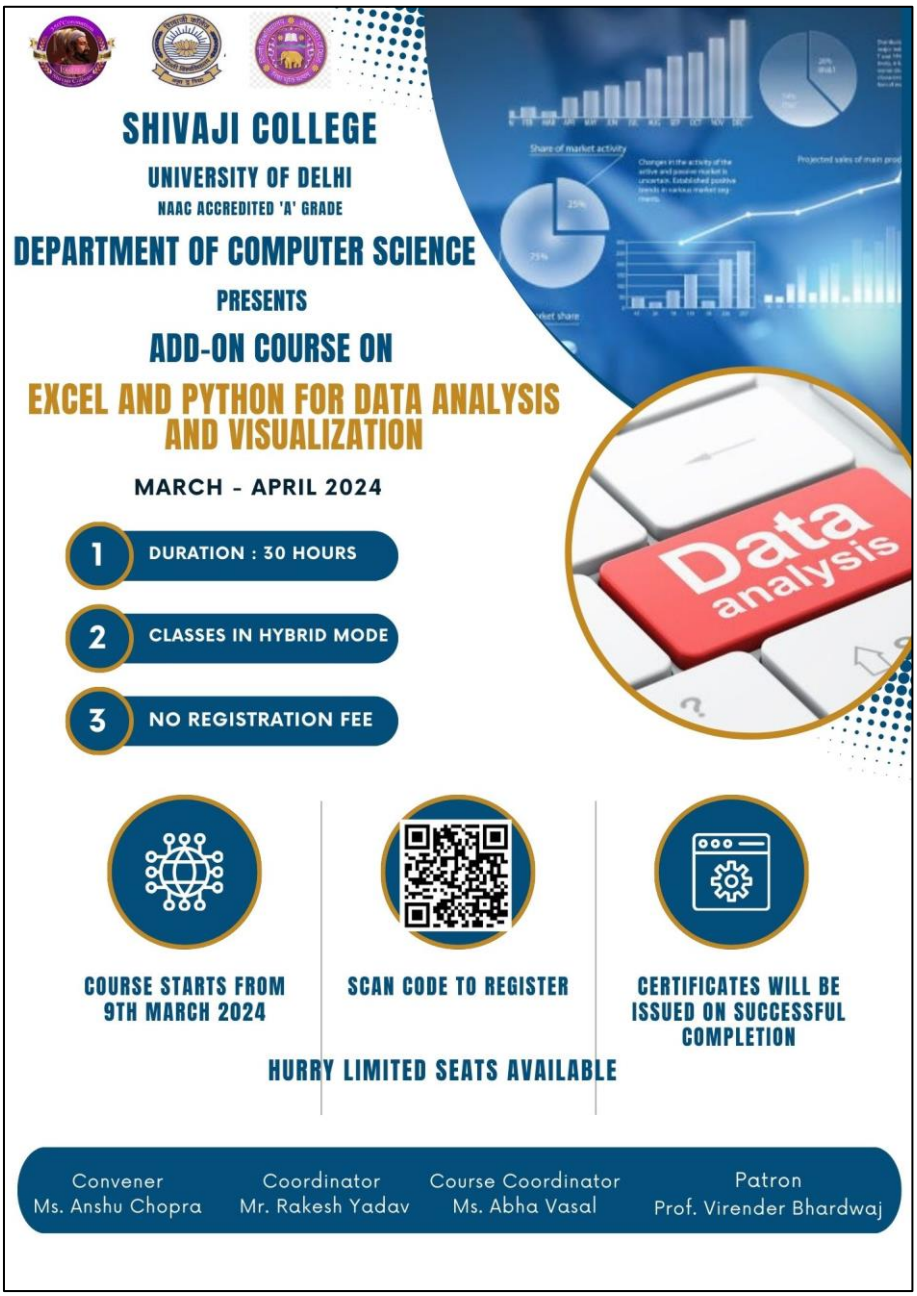
Add-on Course on "Understanding Chemistry using Software"

The Department of Chemistry, Shivaji College, University of Delhi conducted an Add-on Course on **"Understanding Chemistry using Software"** from 9th March to 21st April, 2024 in online mode on MS Teams. The Course Convenor was Dr. Neena Khanna and Course Coordinator and Resource Person was Dr. Richa Arora from the Department of Chemistry, Shivaji College. Around 43 students of B.Sc (H) Chemistry, Biochemistry, Zoology, B.Sc (P) Life Sciences successfully completed the course. The course involved one session on ArgusLab by Dr. Upasana Issar, working as an Assistant Professor in the Department of Chemistry, Kalindi College, University of Delhi. The course comprised of four modules involving hands-on training classes on online Molecular Modelling software MolView, JMol, Avogadro and ArgusLab, which involved basic structure drawing and calculation of energy and properties like geometrical properties, bond order, charges, and HOMO, LUMO and ESP plots along with study of biomolecules. This course would help students to better understand the basics of Chemistry and would be an added advantage for them since molecular modelling is widely used by scientists around the world to solve scientific problems including drug designing for prevalent diseases.

POSTER OF ADD-ON COURSE ON 'EXCEL AND PYTHON FOR DATA ANALYSIS AND VISUALIZATION' OFFERED BY DEPARTMENT OF COMPUTER SCIENCE

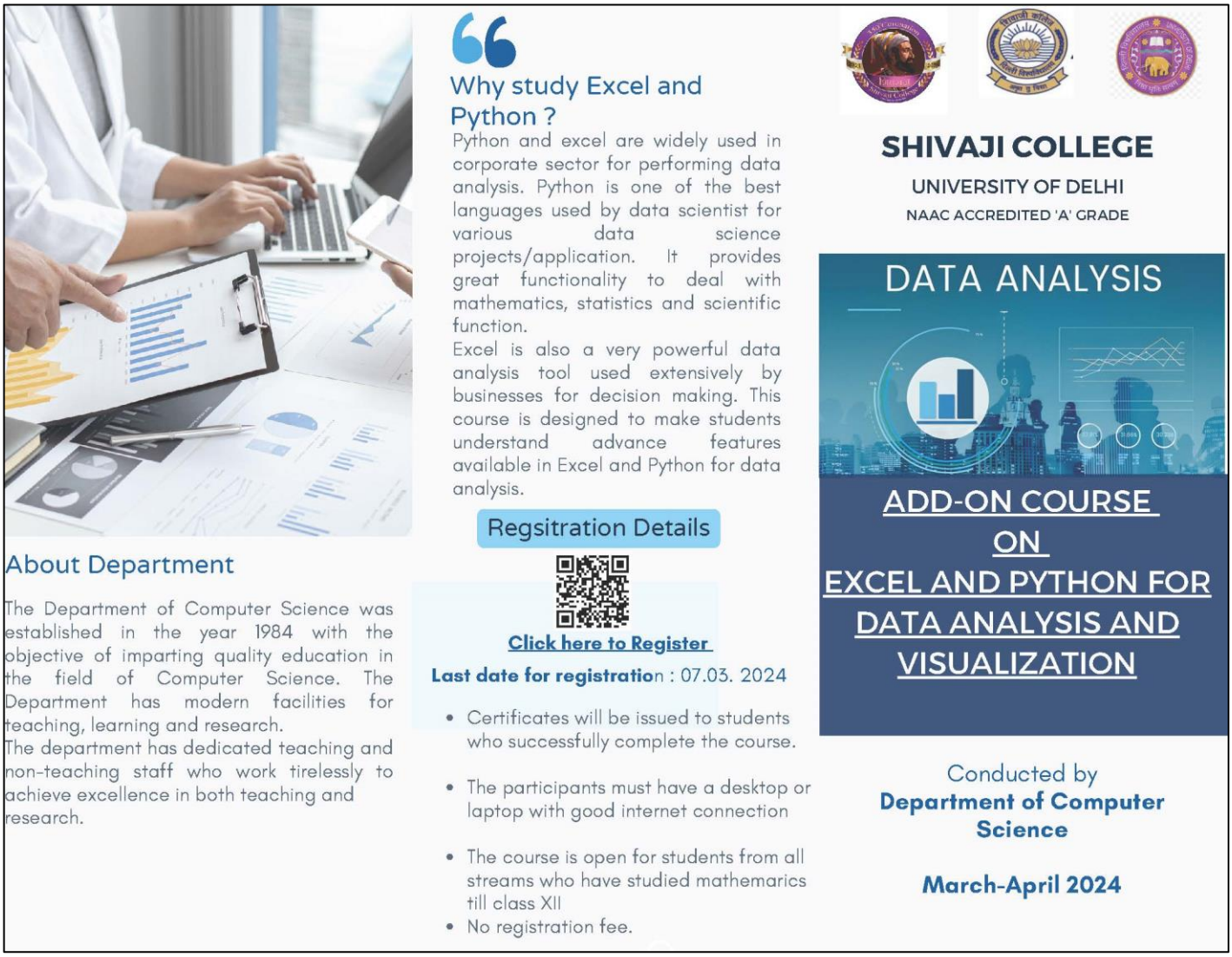
DURATION : 30 HOURS

ADD-ON COURSE -II



ADD-ON COURSE -II

BROCHURE OF ADD-ON COURSE 'EXCEL AND PYTHON FOR DATA ANALYSIS AND VISUALIZATION'



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ADD-ON COURSE -II

Course Content

Module I
Introduction to Excel
Introduction to spreadsheets, basic spreadsheet operations and functions. In this session, you will learn the how to prepare well-formatted reports using sort / filter operations and advanced formatting techniques.

Module II
Data Analysis in Excel - I
In this module you will learn to use some powerful Excel techniques used to understand and manipulate data. Excel offers a wide range of charts like line charts, bar charts, pie charts, scatter plots and boxplots..

Module III
Data Analysis in Excel - II
Handling of missing data, Data cleaning and Transformation using Excel. Use Pivot Tables to analyse data Use VLOOKUP to combine data from multiple sources

Module IV
Introduction to Pandas, NumPy, SciPy: Quick review of Pandas DataFrames, Numpy multidimensional arrays, and SciPy libraries to work with different datasets.

Module V
Import and Export of Data:
Installing, loading and using packages for importing and exporting data in Python

Module VI
IData Preprocessing and Transformation: Handling of missing data, Data cleaning and Transformation in Python

Module VII
IData Exploration
Exploring data using statistical methods. Building contingency table. Basics of grouping data, merge, and pivot tables. Finding correlations among numeric fields.

Module VIII
IData Visualization
Visualizing data with the help of matplotlib and seaborn library. Scatter Plot, line plot, displot, histogram, boxplot, heatmaps, barplot, countplot ,word clouds, exporting plots as images. Creating Pairplots and jointplots

Patron
Prof. Virender Bhardwaj

Convenor
Ms. Anshu Chopra

Co-Convenor
Ms. Preeti Sharma

Coordinator
Mr. Rakesh Yadav

Course Coordinator
Ms. Abha Vasal

For any query email
computerscience@shivaji.du.ac.in

SYLLABUS OF ONLINE ADD-ON COURSE 'EXCEL AND PYTHON FOR DATA ANALYSIS AND VISUALIZATION'

ADD-ON COURSE -II

Excel and Python for Data Analysis and Visualization

Python is widely used in the corporate sector for performing data analysis. Python is one of the best languages used by data scientists for various data science projects/applications. It provides great functionality to deal with mathematics, statistics and scientific function.

Excel is also a very powerful data analysis tool used extensively by businesses for decision making. This course is designed to make students understand advanced features available in Excel and Python for data analysis. The course takes you from basic operations such as reading data into excel using various data formats, organizing, and manipulating data, to some of the more advanced functionality of Excel.

Learning Objectives:

- Gain hands-on experience in Python and Excel for data analysis.
- Data manipulation and analysis to solve business problems.
- Master the art of presenting data visually through a variety of visualization tools and techniques.

Learning Outcomes:

- Learn to leverage Python libraries such as Pandas and NumPy for efficient data handling and manipulation.
- Develop advanced skills in Excel, exploring features for data organization, analysis, and visualization.
- Harness the power of Excel functions and formulas to extract insights from complex datasets.
- Explore the entire data analysis process, from data cleaning and preprocessing to exploratory data analysis (EDA)
- Use industry-standard tools like Matplotlib and Seaborn to create compelling and informative data visualizations.

Module I- Introduction to Excel **(2 Hours)**

Introduction to spreadsheets, basic spreadsheet operations and functions. In this session, you will learn the how to prepare well-formatted reports using sort / filter operations and advanced formatting techniques. Performing Basic Formatting, Conditional Formatting & Advanced Formatting

Module 2-Data Analysis in Excel – I **(2 Hours)**

Cont'd

ADD-ON COURSE -II

In this session you will learn to use some powerful Excel techniques used to understand and manipulate data. Excel offers a wide range of charts like line charts, bar charts, pie charts, scatter plots and boxplots.

The learning objectives of this session are:

- Use csv and delimited files to read data
- Bucketing & Segmenting
- Complex, Text Functions, logical formula in MS Excel. Conditional Formatting
- Create visualisations to analyse and present data / important insights

Module 3- Data Analysis in Excel – II **(3 Hours)**

In this session, you will learn to use some powerful Excel techniques used to understand and manipulate data. The learning objectives of this session are:

- Handling of missing data, Data cleaning and Transformation using Excel
- Use Pivot Tables to analyse data
- Use VLOOKUP to combine data from multiple sources
- Working on Case study

Module 4 - Introduction to Pandas, NumPy, SciPy: **(9 Hours)**

Quick review of Pandas DataFrames, Numpy multidimensional arrays, and SciPy libraries to work with different datasets

Module 5 - Import and Export of Data: **(1 Hour)**

Installing, loading and using packages for importing and exporting data in Python

Module 6 - Data Preprocessing and Transformation: **(2 Hour)**

Handling of missing data, Data cleaning and Transformation in Python

Identify and Handling Duplicate and Missing Data: Find and remove duplicate rows and impute missing values. Performing data cleaning by identifying the data types, fixing rows and columns, standardizing values, fixing invalid values and filtering the data

Module 7 - Data Exploration **(1 Hour)**

Abha Vasal

(Course Coordinator)

ADD-ON COURSE -II

SCHEDULE OF ONLINE ADDON COURSE 'EXCEL AND PYTHON FOR DATA ANALYSIS AND VISUALIZATION' – DURATION 30 HOURS

FROM 9TH MARCH 2024- 30TH APRIL 2024

09.03.2024 - 30.04.2024
Department of Computer Science

Schedule

ADD ON COURSE - Excel and Python for Data Analysis and Visualization

Session	Topics to be covered	Duration	Resource Person
1	Introduction to the modules in the syllabus. Roadmap for the course. Career prospects. Instructions for evaluation and conduct of classes.	1 Hour	Ms. Abha Vasal
2	Introduction to Excel. Basic spreadsheet operations and functions. How to prepare well-formatted reports using sort / filter operations and advanced formatting techniques. Performing Basic Formatting, Conditional Formatting , Advanced Formatting	2 Hours	Ms. Abha Vasal
3	Excel techniques to understand and manipulate data. Use csv and delimited files to read data, Bucketing and Segmenting. Complex Text Functions, logical formula in MS Excel. Conditional Formatting Creating visualisations (using a wide range of charts like line charts, bar charts, pie charts, scatter plots and boxplots) to analyse and present important insights.	2 Hours	Ms. Abha Vasal
4	Handling of missing data, Data cleaning and Transformation in Excel Using Pivot Tables to analyse data. Using VLOOKUP to combine data from multiple sources. Working on Case study	3 Hours	Ms. Abha Vasal
5	Introduction to Numpy library in Python. Create NumPy arrays(1 D, 2D, 3D). Convert lists and tuples to NumPy arrays, slicing. Creating arrays using random module, arange. Compare Lists and Numpy array in terms of computation time. Manipulate arrays- reshape, stack arrays	2 Hours	Ms. Yogesh Kumari
6	Perform operations on arrays, Apply built-in functions. Apply basic linear algebra operations, Practice Exercises in Numpy	2 Hours	Ms. Yogesh Kumari
7	Introduction to Pandas library Creating dataframes, Importing CSV data files , Reading and summarising	2 Hours	Dr. K.K.S Gautam

(ABHA VASAL)
Course Coordinator

(RAKESH YADAV)
Course Convener

Cont'd

ADD-ON COURSE -II

SCHEDULE

	dataframes. Sorting dataframes indexing and slicing data		
	Operations on Dataframes, creating new columns, Merging dataframes using joins. Pivoting and grouping and aggregate functions	2 Hours	Dr. K.K.S Gautam
	Submission of Assignment on Numpy and Pandas		
	Data Preprocessing and Transformation: Handling of missing data, Data cleaning and Transformation in Python. Identify and Handling Duplicate and Missing Data: Find and remove duplicate rows and impute missing values. Performing data cleaning by identifying the data types, fixing rows and columns, standardizing values, fixing invalid values and filtering the data	2 Hours	Dr. K.K.S Gautam
	Data Visualisation sing Matplotlib library Creating and plotting graphs. Different chart types- Bar, scatter, line , histogram, boxplot. Choosing plot type	2 Hours	Ms. Yogesh Kumari
	Data Visualisation Case study	2 hours	Ms. Abha Vasal
	Introduction to seaborn library – Distribution plots, pie chart, bar chart, scatter plot, pair plot, boxplot, heatmaps, line chart. Practice exercises	3 Hours	Ms. Abha Vasal
	EDA- univariate and bivariate analysis	2 Hours	Mr. Pawan Kumar
	Case study	2 Hours	Ms. Abha Vasal
	Introduction to scipy library	1 Hour	Mr. Pawan Kumar
Submission of assignment on matplotlib and seaborn library			
Test 1 Hour			

(ABHA VASAL)
Course Coordinator

(RAKESH YADAV)
Course Convener

REPORT

ADD-ON COURSE -II

Report on Add-on Course

Excel and Python for Data Analysis and Visualization

The Department of Computer Science conducted an addon course **'Excel and Data Analysis for Data Analysis and Visualization'**, for students of all streams from 9th March 2024 to 30th April 2024.

The course was designed to make students understand advanced features available in Excel and Python for data analysis. The course delves from basic operations such as reading data into excel using various data formats, organizing and manipulating data, to advanced functionality available in Excel. Students were given hands-on sessions on Python libraries Numpy, Pandas, Scipy, Matplotlib and Seaborn extensively used for data analysis and visualization. Case studies were discussed to get students to practically apply their skills and their understanding of learned facts to a real-world situation. Assignments were regularly given to evaluate the students.

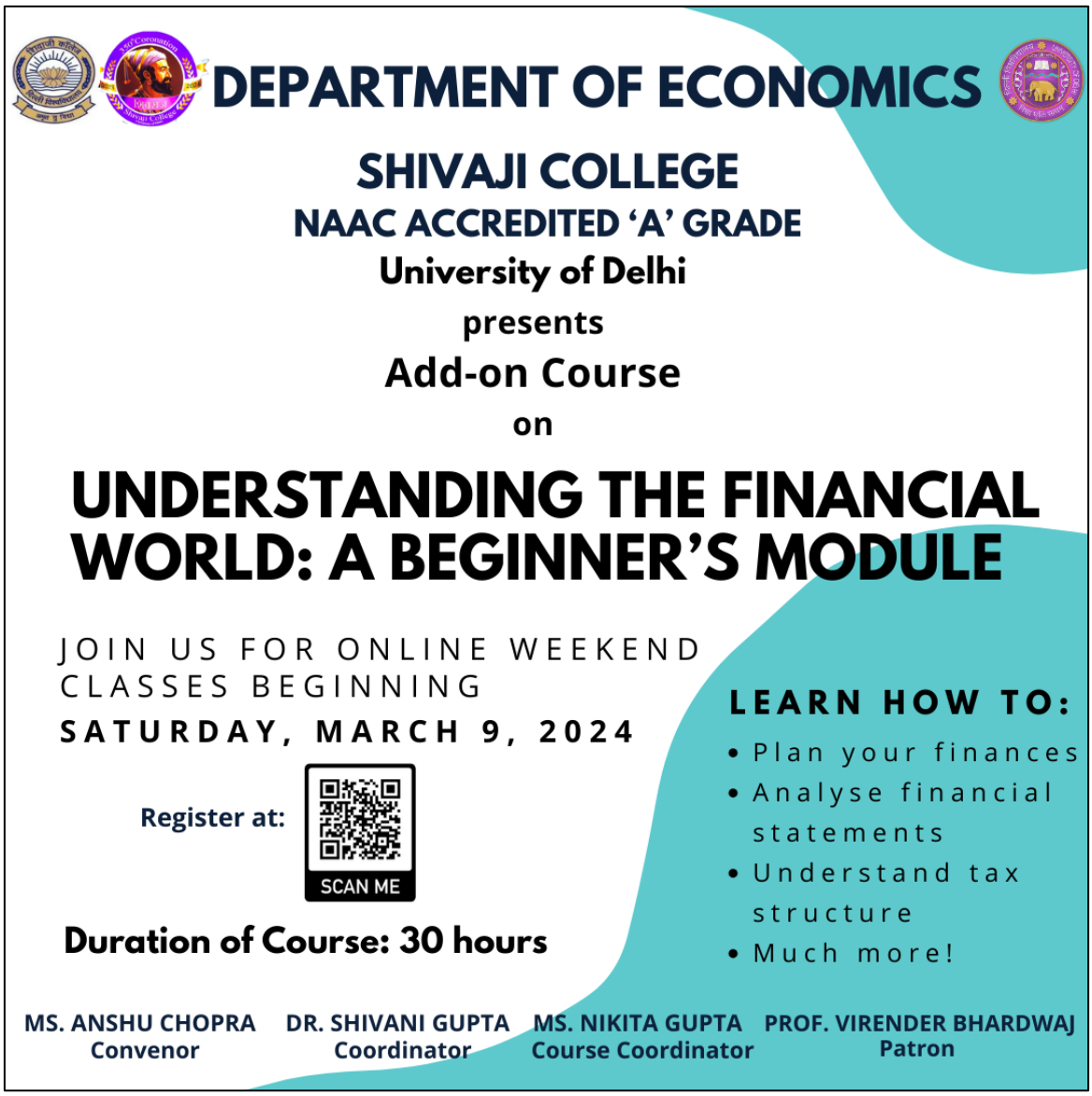
The course received more than 90 registrations. The final evaluation exam was held on 30th April 2024. Fifty students successfully completed the course. Valedictory ceremony was held on May 14, 2024.

(Ms. ABHA VASAL)
Course Coordinator

(Mr. Rakesh Yadav)
Course Convenor

ADD-ON COURSE -III

POSTER OF ADD-ON COURSE 'UNDERSTANDING THE FINANCIAL WORLD: A BEGINNER'S MODULE' OFFERED BY DEPARTMENT OF ECONOMICS



ADD-ON COURSE -III

BROCHURE OF ONLINE ADD-ON COURSE 'UNDERSTANDING THE FINANCIAL WORLD: A BEGINNER'S MODULE'

Shivaji College

University of Delhi
(Accredited with grade "A" by NAAC)

Department of Economics

organises

Add-on Course

on

"Understanding the Financial World: A Beginner's Module"

March-April 2024

About Department

The Department of Economics stands as a cohesive community of esteemed faculty and engaged students, committed to fostering holistic development and academic excellence. With a dedicated focus on providing comprehensive learning experiences, we continuously strive to offer opportunities for students to showcase and enhance their competitive skills. Through rigorous academic programs, experiential learning initiatives, and extracurricular activities, we empower our students to excel in a dynamic and competitive world.

Course Objectives

This Course aims to acquaint the students with basic knowledge of several aspects of financial world and investment. It will discuss the various financial instruments and working of financial markets. The course will also equip the students with the knowledge required to comprehend the financial statements of a company to make informed investment decisions.

Module 1: Introduction to Financial System and Investment Asset Classes and Financial Instruments, Risk, Return, Savings & Investment, Time value of money

Module 2: Key Macroeconomic Variables and Policy Implications
Interest rate, Yield, Foreign Reserves, Policy Instruments, Variable Repo Auction, Financial Markets and the Economy

Module 3: Regulatory Framework of Central Bank and Global Financial Regulatory
Framework Recession, bubbles, mortgage crisis, NPAs, BASEL norms and regulations

Module 4: Financial Market and Instruments
Capital Market, Money market, Options, Futures, Mutual funds, Index funds

Module 5: Investors in Markets and Investment.
RII, HNI, DII, FII, angel investors, private equity etc., greenfield and brownfield investment

Module 6: Bond Valuation and Prices
Bond Characteristics, Bond Pricing, Bond Yields, Default Risk and Bond Pricing, Yield Curve, Term Structure theories

Module 7: Stock Valuation and Prices
Estimated Value and Market Price, Equity Valuation Models, Dividend Discount Model, Asset Pricing theories

Module 8: Learning how to read Financial Statements
Introduction to accounting, Income statement, Balance sheet, Ratio Analysis, Cash flow statements

Module 9: Understanding Tax Implications and Tax Planning
Long-term Capital Gains Tax, Short-Term Capital Gains Tax, Securities Transaction Tax, Dividend Tax, Taxes on Interest Income, Tax Saving Investment options

Points to remember:

- The participants must fill the registration form to enroll in the course.
- The participants must have a desktop or laptop with good internet connection.
- Eligibility: All Students pursuing any course
- No registration fee.
- Classes will he held in online mode on weekends.

Register: Click here SCAN ME

Last date of registration: 07.03.2024

Certificates will be issued to participants based on their attendance and assessments.

Patron
Prof. Virender Bhardwaj

Convenor
Ms. Anshu Chopra

Co-Convenor
Ms. Preeti Sharma

Coordinator
Dr. Shivani Gupta

Course Coordinator
Ms. Nikita Gupta

For further queries,
contact: economics@shivaji.du.ac.in

SYLLABUS

ADD-ON COURSE -III

Understanding the Financial World: A Beginner's Module

The understanding of financial world is important to make investment decisions at the individual and company level. It revolves around managing money and utilizing it efficiently. The risk and return of any investment depend on macro-economic and company specific policies and surrounding environment. Thus, the knowledge of the working and implications of any financial instrument is essential for making a successful investment. It is important to understand the regulatory environment and tax implications of investment in any instrument and to be able to comprehend the financial statements of the companies.

Learning Objectives:

This Course aims to acquaint the students with basic knowledge of several aspects of financial world and investment. The Course also discusses the basic concepts of some important macroeconomic variables like inflation and interest rate. It will discuss the various financial instruments and working of financial markets. The course will also equip you with the knowledge required to comprehend the financial statements of a company to make informed investment decisions. The course also discusses the knowledge, skills and tools required for effective financial planning and promoting financial well-being in general.

Learning Outcomes:

The students will develop the capability to understand and comprehend financial jargon. They will also have a broad understanding of macroeconomic variables like interest rate and inflation and linkages to the financial products. They will also develop the ability to analyse financial statements. The students will be able to appreciate the concepts of investment planning and its methods.

Course Contents:

Module 1: Introduction to Financial System and Investment Environment

Real Assets versus Financial Assets, Asset Classes and Financial Instruments, Risk, Return, Budgeting, Savings & Investment, Time value of money **(4 Hours)**

Module 2: Key Macroeconomic Variables and Policy Implications

Interest rate, Yield, Foreign flows, Foreign Reserves, Policy Instruments, Policy Corridor, Variable Repo Auction, Inflation & Foreign reserves, Repo Rate, Financial Markets and the Economy **(3 Hours)**

Module 3: Regulatory Framework of Central Bank and Global Financial Regulatory Framework

Recession, bubbles, mortgage crisis, NPAs, BASEL norms and regulations **(3 hours)**

Module 4: Financial Market and Instruments

Capital Market, Money market, Derivatives, Mutual funds, Index funds, hedge fund, Alternative Investment Fund, physical Gold, Digital Gold, Gold ETF, Sovereign Gold Bond etc. **(4 Hours)**

Module 5: Investors in Markets and investment.

Cont'd

ADD-ON COURSE -III

RII, HNI, DII, FII, angel investors, private equity etc., greenfield and brownfield investment. **(2 Hours)**

Module 6: Bond Valuation and Prices

Bond Characteristics, Bond Pricing, Bond Yields, Bond Prices over Time, Default Risk and Bond Pricing, Yield Curve, Future Interest Rates, Term Structure theories **(4 Hours)**

Module 7: Stock Valuation and Prices

Estimated Value and Market Price, Categories of Equity Valuation Models, Dividend Discount Model (Gordon, Walter etc.), Multiplier models, method of comparable, relative models, Asset Pricing theories: Capital Asset Pricing Model (CAPM), Arbitrage Pricing Theory, Multifactor Models of risk and Return **(6 hours)**

Module 8: Learning how to read Financial Statements

Introduction to accounting, Income statement, Balance sheet, Ratio Analysis, Cash flow statements **(2 hours)**

Module 9: Understanding Tax Implications and Tax Planning

Long-term Capital Gains Tax, Short-Term Capital Gains Tax, Securities Transaction Tax (STT), Dividend Tax, Taxes on Interest Income, Tax Saving Investment options **(2 hours)**

Dr. Shivani Gupta (Course Convenor)

Ms. Nikita Gupta (Course Coordinator)

SCHEDULE

ADD-ON COURSE -III

Schedule

Add-on Course on 'Understanding the Financial World: A Beginner's Module' by Department of Economics

Even Semester 2023-24

S No	Resource Person	Affiliation of the resource person	Topics	No. of hours
1	Ms. Nikita Gupta	Assistant Professor, Department of Economics, Shivaji College, University of Delhi	**Introduction to Financial System and Investment Environment** Real Assets versus Financial Assets, Asset Classes and Financial Instruments, Risk, Return, Budgeting, Savings & Investment, Time value of money	4 hours
2	Ms. Nidhi Sehrawat	Assistant Professor, Department of Economics, Shivaji College, University of Delhi	**Key Macroeconomic Variables and Policy Implications** Interest rate, Yield, Foreign flows, Foreign Reserves, Policy Instruments, Policy Corridor, Variable Repo Auction, Inflation & Foreign reserves, Repo Rate, Financial Markets and the Economy	3 hours
3	Ms. Nidhi Sehrawat	Assistant Professor, Department of Economics, Shivaji College, University of Delhi	**Regulatory Framework of Central Bank and Global Financial Regulatory Framework** Recession, bubbles, mortgage crisis, NPAs, BASEL norms and regulations	3 hours
4	Ms. Kavita Yadav	Assistant Professor, Department of Economics, Shivaji College, University of Delhi	**Financial Market and Instruments** Capital Market, Money market, Derivatives, Mutual funds, Index funds, hedge fund, Alternative Investment Fund, physical Gold, Digital Gold, Gold ETF, Sovereign Gold Bond etc.	4 hours

Dr. Shivani Gupta
(Course Convenor)

Ms. Nikita Gupta
(Course Coordinator)

Cont'd

ADD-ON COURSE -III

5	Ms. Manisha Jayant	Assistant Professor, Department of Economics, Shivaji College, University of Delhi	**Investors in Markets and investment** RII, HNI, DII, FII, angel investors, private equity etc., greenfield and brownfield investment	2 hours
6	Ms. Manisha Jayant	Assistant Professor, Department of Economics, Shivaji College, University of Delhi	**Bond Valuation and Prices** Bond Characteristics, Bond Pricing, Bond Yields, Bond Prices over Time, Default Risk and Bond Pricing, Yield Curve, Future Interest Rates, Term Structure theories	4 hours
7	Mr. Rahul	Assistant Professor, Department of Economics, Shivaji College, University of Delhi	**Stock Valuation and Prices** Estimated Value and Market Price, Categories of Equity Valuation Models, Dividend Discount Model (Gordon, Walter etc.), Multiplier models, method of comparable, relative models, Asset Pricing theories: Capital Asset Pricing Model (CAPM), Arbitrage Pricing Theory, Multifactor Models of risk and Return	6 hours
8	Ms. Kavita Yadav	Assistant Professor, Department of Economics, Shivaji College, University of Delhi	**Learning how to read Financial Statements** Introduction to accounting, Income statement, Balance sheet, Ratio Analysis, Cash flow statements	2 hours
9	Md. Irfan Alam	Assistant Professor, Department of Economics, Satyawati College, University of Delhi	**Understanding Tax Implications and Tax Planning** Long-term Capital Gains Tax, Short-Term Capital Gains Tax, Securities Transaction Tax (STT), Dividend Tax, Taxes on Interest Income, Tax Saving Investment options	2 hours

Dr. Shivani Gupta
(Course Convenor)

Ms. Nikita Gupta
(Course Coordinator)

ADD-ON COURSE -III

REPORT

Report on Add-on Course

Understanding the Financial World: A Beginner's Module

The Department of Economics conducted an Add-on course on 'Understanding the Financial World: A Beginner's Module' for students of all streams from 9th March 2024 to 18th April, 2024 in the hybrid mode.

The Course aimed to acquaint the students with basic knowledge of several aspects of financial world and investment. The basic concepts of some important macroeconomic variables like inflation and interest rate were also discussed. The course equipped the students with the knowledge required to comprehend the financial statements of a company to make informed investment decisions, discussing the various financial instruments and working of financial markets. The discussions focussed on imparting the knowledge, skills and tools required for effective financial planning and promoting financial well-being in the real world. The students were assessed on their understanding and applicability of the concepts in a mid-course and course-end evaluation.

The course received more than 75 registrations. The final evaluation exam was held on 18th April 2024. 25 students successfully completed the course. Valedictory ceremony was held on May 14, 2024.

Nikita Gupta
Course Coordinator

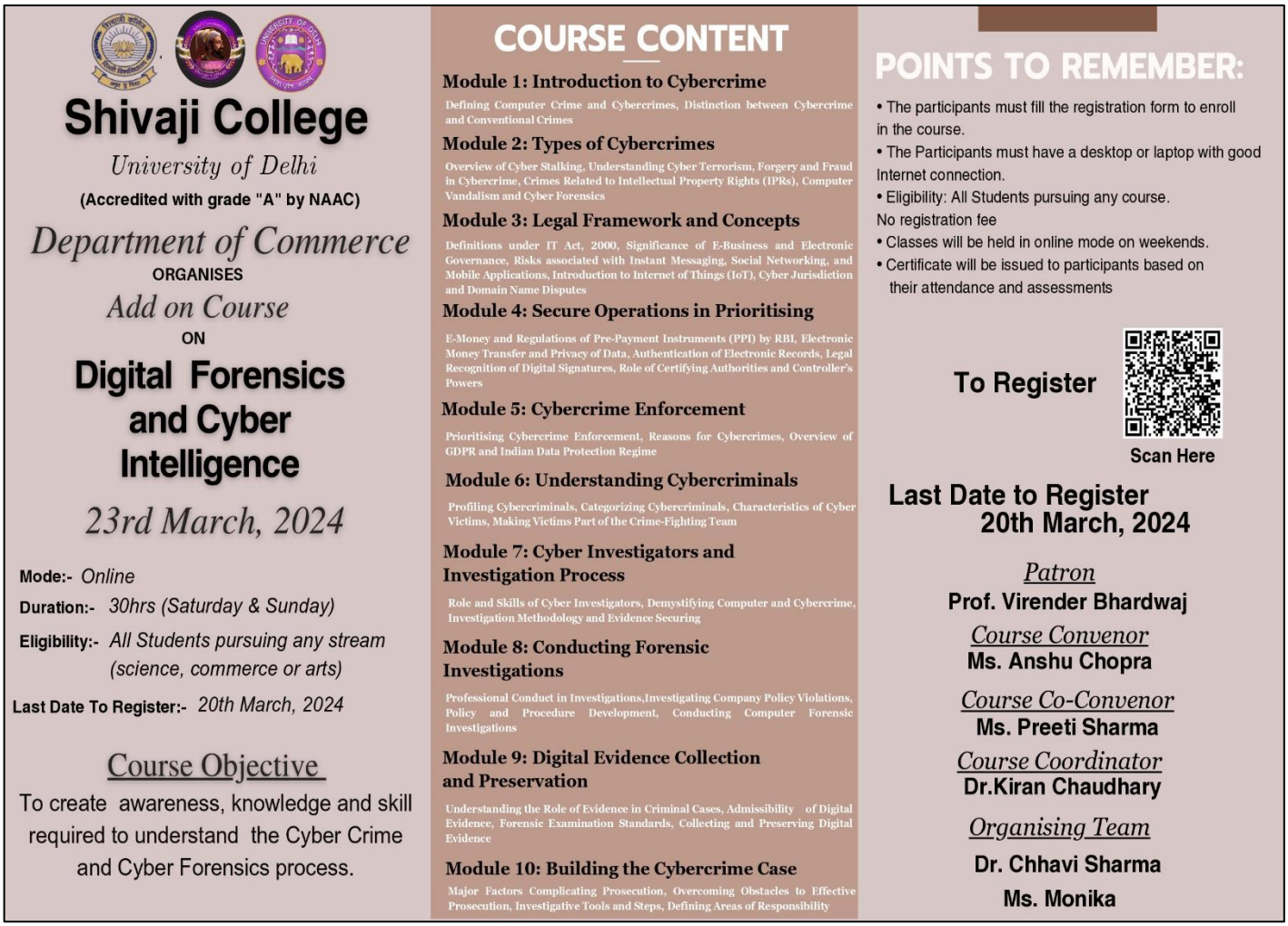
Dr. Shivani Gupta
Course Convenor

ADD-ON COURSE -IV

POSTER FOR ONLINE ADD-ON COURSE 'DIGITAL FORENSICS AND CYBER INTELLIGENCE' OFFERED BY DEPARTMENT OF COMMERCE

ADD-ON COURSE -IV

BROCHURE OF ONLINE ADD-ON COURSE 'DIGITAL FORENSICS AND CYBER INTELLIGENCE'



Shivaji College

University of Delhi

(Accredited with grade "A" by NAAC)

Department of Commerce

ORGANISES

Add on Course

ON

Digital Forensics and Cyber Intelligence

23rd March, 2024

Mode:- *Online*

Duration:- *30hrs (Saturday & Sunday)*

Eligibility:- *All Students pursuing any stream (science, commerce or arts)*

Last Date To Register:- *20th March, 2024*

Course Objective

To create awareness, knowledge and skill required to understand the Cyber Crime and Cyber Forensics process.

COURSE CONTENT

Module 1: Introduction to Cybercrime

Defining Computer Crime and Cybercrimes, Distinction between Cybercrime and Conventional Crimes

Module 2: Types of Cybercrimes

Overview of Cyber Stalking, Understanding Cyber Terrorism, Forgery and Fraud in Cybercrime, Crimes Related to Intellectual Property Rights (IPRs), Computer Vandalism and Cyber Forensics

Module 3: Legal Framework and Concepts

Definitions under IT Act, 2000, Significance of E-Business and Electronic Governance, Risks associated with Instant Messaging, Social Networking, and Mobile Applications, Introduction to Internet of Things (IoT), Cyber Jurisdiction and Domain Name Disputes

Module 4: Secure Operations in Prioritising

E-Money and Regulations of Pre-Payment Instruments (PPI) by RBI, Electronic Money Transfer and Privacy of Data, Authentication of Electronic Records, Legal Recognition of Digital Signatures, Role of Certifying Authorities and Controller's Powers

Module 5: Cybercrime Enforcement

Prioritising Cybercrime Enforcement, Reasons for Cybercrimes, Overview of GDPR and Indian Data Protection Regime

Module 6: Understanding Cybercriminals

Profiling Cybercriminals, Categorizing Cybercriminals, Characteristics of Cyber Victims, Making Victims Part of the Crime-Fighting Team

Module 7: Cyber Investigators and Investigation Process

Role and Skills of Cyber Investigators, Demystifying Computer and Cybercrime, Investigation Methodology and Evidence Securing

Module 8: Conducting Forensic Investigations

Professional Conduct in Investigations,Investigating Company Policy Violations, Policy and Procedure Development, Conducting Computer Forensic Investigations

Module 9: Digital Evidence Collection and Preservation

Understanding the Role of Evidence in Criminal Cases, Admissibility of Digital Evidence, Forensic Examination Standards, Collecting and Preserving Digital Evidence

Module 10: Building the Cybercrime Case

Major Factors Complicating Prosecution, Overcoming Obstacles to Effective Prosecution, Investigative Tools and Steps, Defining Areas of Responsibility

POINTS TO REMEMBER:

- The participants must fill the registration form to enroll in the course.
- The Participants must have a desktop or laptop with good Internet connection.
- Eligibility: All Students pursuing any course.

No registration fee

- Classes will be held in online mode on weekends.
- Certificate will be issued to participants based on their attendance and assessments

To Register

Scan Here

Last Date to Register
20th March, 2024

Patron
Prof. Virender Bhardwaj

Course Convenor
Ms. Anshu Chopra

Course Co-Convenor
Ms. Preeti Sharma

Course Coordinator
Dr.Kiran Chaudhary

Organising Team
Dr. Chhavi Sharma
Ms. Monika

ADD-ON COURSE -IV

SCHEDULE

Technical Program Schedule

Add-on Course on "Digital Forensics and Cyber Intelligence" by Department of Commerce

Even Semester 2023-24 (23.03.2024 to 12.05.2024)

S.No.	Name of the Resource Person	Affiliation of the Resource Person	Topics Covered	No. of hours
1.	Ms. Monika	Department of Commerce, Shivaji College, University of Delhi	Inaugural Session, Introduction to Cybercrime: Defining Computer Crime and Cybercrimes, Distinction between Cybercrime and Conventional Crimes	02
2.	Ms. Priyanka	Department of Commerce, Satyawati College (Evening), University of Delhi	Types of Cybercrimes: Overview of Cyber Stalking, Understanding Cyber Terrorism, Forgery and Fraud in Cybercrime, Crimes Related to Intellectual Property Rights (IPRs), Computer Vandalism and Cyber Forensics	02
3.	Dr. Nidhi Dahiya	Department of Law, Maharaja Surajmal Institute, GGSIP University	Legal Framework and Concepts: Definitions under IT Act, 2000, Significance of E-Business and Electronic Governance, Risks associated with Instant Messaging	02
4.	Ms. Manisha Rani	Department of Commerce, Shivaji College, University of Delhi	Legal Framework and Concepts: Social Networking, and Mobile Applications, Introduction to Internet of Things (IoT), Cyber Jurisdiction and Domain Name Disputes	02
5.	Mr. Deepak	Sr. Cyber Intelligence & Digital Forensics Professional	Cyber Forensic and Cyber Intelligence	02
6.	Ms. Aashita Chhabra	Research Scholar, Jamia Millia Islamia	Secure Operations in Prioritising: Authentication of Electronic Records, Legal Recognition of Digital Signatures, Role of Certifying Authorities and Controller's Powers	02
7.	Ms. Neetu	Department of Commerce, Shivaji College, University of Delhi	Cybercrime Enforcement: Prioritising Cybercrime Enforcement, Reasons for Cybercrimes, Overview of GDPR and Indian Data Protection Regime	02
8.	Ms. Sonika	Department of Commerce Shivaji College, University of Delhi	Understanding Cybercriminals: Profiling Cybercriminals, Categorizing Cybercriminals, Characteristics of Cyber Victims. Making Victims Part of the Crime-Fighting Team	02
9.	Mr. Vikas Nigam	VP & Business Head Government Business Unit with Paradigm IT Technology Services Pvt Ltd.	Prevailing Cyber Threats and Preventive Measures	02
10.	Ms. Soumya Singh	Department of Commerce, Shivaji College, University of Delhi	Conducting Forensic Investigations: Professional Conducting Investigations, Investigating Company Policy Violations, Policy and Procedure Development, Conducting Computer Forensic Investigations	02

Kiran Chaudhary
(DR. KIRAN CHAUDHARY)
COURSE CONVENOR

Chhavi Sharma
DR. CHHAVI SHARMA
(COURSE COORDINATOR)

ADD-ON COURSE -IV

11.	Ms. Yogita	Department of Commerce, Shivaji College, University of Delhi	Digital Evidence Collection and Preservation: Understanding the Role of Evidence in Criminal Cases, Admissibility of Digital Evidence, Forensic Examination Standards, Collecting and Preserving Digital Evidence	02
12.	Mr. Aabhas Dahiya	Legal Panel Advocate, Government of India	Building the Cybercrime Case: Major Factors Complicating Prosecution, Overcoming Obstacles to Effective Prosecution, Investigative Tools and Steps, Defining Areas of Responsibility	02
13.	Advocate Usha Srinivas	Civil and Criminal Lawyer	Caselaws on Cyber Crime	02
14.			Course Assessment for Certificate Eligibility	02
15.	Mr. Nitish Dahiya	Advocate, Delhi High Court	Revision & Career Opportunities in Cyber Security	02

DR. KIRAN CHAUDHARY
(COURSE CONVENOR)

DR. CHHAVI SHARMA
(COURSE COORDINATOR)

ADD-ON COURSE -IV

REPORT OF ONLINE ADD-ON COURSE –'DIGITAL FORENSICS AND CYBER INTELLIGENCE'

Date: 23rd April, 2024 – 12th May, 2024

Organizers:Department of Commerce, Shivaji College, Delhi University

Overview:

The Cybercrime Seminar Series, organized by the Department of Commerce at Shivaji College, University of Delhi, aimed to provide comprehensive insights into the various aspects of cybercrime, cyber forensics, legal frameworks, enforcement, investigation processes, and evidence collection.

Session Highlights:

1. **Inaugural Session, Introduction to Cybercrime** : Ms. Monika, Department of commerce, Shivaji College, University of Delhi, provided a overview of the course and started with an amazing session Defining Computer Crime and Cybercrimes, Distincted between Cybercrime and Conventional Crimes.

2. **Types of Cybercrimes** : Ms. Priyanka, Department of Commerce, Satyawati College (Evening), University of Delhi gave us a sketch of Cyber Stalking, Understanding Cyber Terrorism, Forgery and Fraud in Cybercrime, Crimes Related to Intellectual Property Rights (IPRs), Computer Vandalism and Cyber Forensics.

3. **Legal Framework and Concepts** : Dr. Nidhi Dahiya, Department of Law, Maharaja Surajmal Institute, GGSIP University summarised the Definitions under IT Act, 2000, Significance of E-Business and Electronic Governance, Risks associated with Instant Messaging.

4. **Legal Framework and Concepts** : Ms. Manisha Rani, Department of Commerce, Shivaji College, University of Delhi gave us an insight on Social Networking, and Mobile Applications, Introduction to Internet of Things (IoT), Cyber Jurisdiction and Domain Name Disputes.

5. **Cyber Forensic and Cyber Intelligence** : Dr. Deepak, Sr Cyber Intelligence & Digital Forensics Professional took an offline session, in which he presented a presentation briefing us about Cyber Forensic and Cyber Intelligence.

Cont'd

ADD-ON COURSE -IV

6. **Secure Operations in Prioritising** : Ms. Aashita Chhabra, Research Scholar, Jamia Millia Islamia provided us with an overview on Authentication of Electronic Records, Legal Recognition of Digital Signatures, Role of Certifying Authorities and Controller's Powers.

7. **Cybercrime Enforcement** : Dr. Neetu Dhayal, Department of Commerce, Shivaji College, University of Delhi told us about the Prioritising Cybercrime Enforcement, Reasons for Cybercrimes, Overview of GDPR and Indian Data Protection Regime.

8. **Understanding Cybercriminals** : Ms. Sonika, Department of Commerce Shivaji College, University of Delhi helped us with the topics like Profiling Cybercriminals, Categorizing Cybercriminals, Characteristics of Cyber Victims, Making Victims Part of the Crime-Fighting Team.

9. **Prevailing Cyber Threats and Preventive Measures** : Mr. Vikas Nigam, VP & Business Head Government Business Unit with Paradigm IT Technology Services Pvt Ltd. He shed light on the evolving landscape of cyber threats and providing strategies to mitigate risks effectively.

10. **Conducting Forensic Investigations** : Dr. Saumya Singh , Department of Commerce, Shivaji College, University of Delhi. She provided the insights into the principles, techniques and best practices involved in forensics investigation in various context, including digital forensics, financial fraud investigations and incident response.

11. **Digital Evidence Collection and Preservation** : Ms. Yogita Negi, Department of Commerce, Shivaji College, University of Delhi. The session underscored the importance of rigorous documentation, adherence to legal and regulatory requirements and the use of appropriate tools and techniques to ensure the integrity and reliability of digital evidence.

12. **Building the Cybercrime Case** : Mr. Aabhas Dahiya, Legal Panel Advocate, Government of India. The session highlighted methodologies and challenges of cybercrime investigation and best practices involved in constructing effective cases against cybercriminals.

13. **Caselaws on Cyber Crime** : Advocate Usha Srinivas, Civil and Criminal Lawyer. She gave us an overview on significant legal cases related to cybercrime. The webinar delved into various legal precedents and their implications for cybercrime prosecution and adjudication.

Cont'd

ADD-ON COURSE -IV

14. **Course Assessment for Certificate Eligibility :** A google form consisting 50 question of 2 marks each relevant to all the session's topics that were covered in the course, was given to the students, in order to mark their grades.

15. **Revision & Career Opportunities in Cyber Security** : Mr. Nitish Dahiya, Advocate, Delhi High Court. He provided a comprehensive overview of the current landscape of cyber security, revision strategies for aspiring professionals and emerging career opportunities in the field.

Conclusion:

The seminar series provided participants with a holistic understanding of cybercrime, legal aspects, and career pathways in cybersecurity. Through expert sessions and discussions, attendees gained valuable insights into the complexities of cybercrimes and the measures needed for effective prosecution.

ADD-ON COURSE -V

POSTER FOR ONLINE ADD-ON COURSE 'LATEX AND ACADEMIC WRITING' OFFERED BY DEPARTMENT OF PHYSICS

ADD-ON COURSE -V

BROCHURE FOR ONLINE ADD-ON COURSE

'LATEX FOR ACADEMIC WRITING '

Shivaji College
University of Delhi
(Accredited with grade "A" by NAAC)

Add-On Certificate Course
on
"LATEX FOR ACADEMIC WRITING"
March 2024 - April 2024
(Online Mode)
Organized by Department of Physics

ABOUT COLLEGE

Shivaji College is a premier institution in West Delhi accredited with grade 'A' by NACC . It was ranked as one of the top 10 science colleges in the country in a survey conducted by India Today in 2017. Shivaji College functions under the trusteeship of the Government of Delhi. It was established in 1961 by the Honourable Dr. Panjabrao Deshmukh. Shivaji College is a Co-educational constituent college of the University of Delhi with 4099 students consisting of 16 departments offering 26 undergraduate courses and 3 postgraduate courses. The faculty comprises of 163 teaching and 109 non - teaching members . The college was ranked 35th among the science colleges , 28th in Commerce and 42nd in humanities by India Today in 2022 . The college has been ranked 78 by NIRF 2022 and 31 by Outlook India. The Motto of Shivaji college : 'Amritam tu vidya' (Knowledge is Eternal) highlights our mission.

ABOUT DEPARTMENT

The Department of Physics at our institution is characterized by an inspiring faculty, creative students, and accomplished alumni. We firmly believe that while desire serves as the key to motivation, it is determination and unwavering commitment to excellence that lead to success. Our faculty is dedicated to achieving excellence in both teaching and research. The primary goal of the department is to deliver high-quality education in physics.

PATRON

Prof . Virender Bhardwaj
Principal
Shivaji College

Convenor (Add-On Course)

Ms. Anshu Chopra
Associate Professor
Dept. of Economics

Co-Convenor (Add-On Course)

Ms. Preeti Sharma
Associate Professor
Dept. of Computer Science

Convenor

Dr. Neeti Goel
Assistant Professor
Dept. of physics

Coordinator

Ms . Neetu Verma
Assistant Professor
Dept. of physics

Who can attend ?

- **Open for students of all courses of Shivaji College**

Participants are advised to keep their laptops/phone for hands on practice during sessions

Cont'd

ADD-ON COURSE -V

Program Objective

This workshop aims to provide a comprehensive theoretical and hands on practice with LaTeX for preparing research articles, thesis writing and oral presentation. It will be useful for beginners and also who are using it on a regular basis.

Course content

Unit 1: Introduction
Creating a document in Overleaf, Uploading a project, Copying a project, Creating a project from a template Using the Overleaf project menu, Including images in Overleaf, Exporting your work from Overleaf, Working offline in Overleaf, Debugging Compilation timeout errors.

Unit 2: Basic Concepts for writing in LaTeX
Creating your first LaTeX document, Choosing a LaTeX Compiler, Paragraphs and new lines, Bold, Italics and Underlining, Colors to a block of text, Lists, Figures and tables: Inserting Images, Tables, Positioning Images and Tables, Lists of Tables and Figures, Adding references and citations.

Unit 3: Mathematics
Mathematical expressions, Subscripts and Superscripts, Brackets and Parentheses, Matrices, Fractions, Binomials, Integrals and Vectors, Aligning equations, Operators, Spacing in math mode, limits, Display, List of Greek letters and math symbols, Mathematical fonts, Using the Symbol Palette in Overleaf.

Why LaTeX ?

LaTeX is a high-quality typesetting system which is widely used for document preparation in academics. Nowadays, LaTeX is used not only to write documents in mathematics but also physics, computer science, engineering, economics, psychology, social and political sciences. LaTex is preferably used for technical/scientific papers writing for journals by researchers, engineers and mathematicians at large.. In contrast to Microsoft Word, LaTeX can handle large documents very easily.

Some useful features of LATEX are :-

- **Typesetting of journal articles, technical reports, thesis, books, and slide presentations.**
- **Simpler to handle large documents containing sections, cross-references, tables, mathematical equations, footnotes and figures.**
- **Typesetting of complex mathematical formulae.**
- **Automatic generation of table of contents, bibliographies and index.**

Last Date of Registration: 7th March 2024
Date of Commencement: 9th March 2024
The certificate of participation will be issued based on attendance and assignment.

Limited seats are available, book your seat now

Registration link:
Click for the Registration

Contact Details:-
Dr. Neeti Goel & Ms. Neetu Verma
Department of Physics
Shivaji College
University of Delhi
Email:- neetigoel09@gmail.com
neetuverma@shivaji.du.ac.in
Contact: - 9958334804, 9810229886

ADD-ON COURSE -V

SYLLABUS

SHIVAJI COLLEGE, UNIVERSITY OF DELHI

DEPARTMENT OF PHYSICS

VALUE ADDED COURSE ON "LATEX FOR ACADEMIC WRITING"

Course Duration: 30 Hours

Objectives: To introduce students with an online LaTeX writing platform through Overleaf that allows them to easily typeset and collaborate on perfectly formatted scientific and technical documents. To make students know the importance of LaTeX for publishing research articles, papers and project reports.

Unit 1: Introduction **10 Hours**

Creating a document in Overleaf, Uploading a project, Copying a project, Creating a project from a template Using the Overleaf project menu, Including images in Overleaf, Exporting your work from Overleaf, Working offline in Overleaf, Debugging Compilation timeout errors.

Unit 2: Basic Concepts for writing in LaTeX **10 Hours**

Creating your first LaTeX document, Choosing a LaTeX Compiler, Paragraphs and new lines, Bold, Italics and Underlining, Colors to a block of text, Lists, Figures and tables: Inserting Images, Tables, Positioning Images and Tables, Lists of Tables and Figures, Adding references and citations.

Unit 3: Mathematics **10 Hours**

Mathematical expressions, Subscripts and Superscripts, Brackets and Parentheses, Matrices, Fractions, Binomials, Integrals and Vectors, Aligning equations, Operators, Spacing in math mode, limits, Display, List of Greek letters and math symbols, Mathematical fonts, Using the Symbol Palette in Overleaf.

References:

1. LATEX in 24 Hours – a practical guide for scientific writing, Dilip Datta, Springer.
2. A Guide to LATEX, Helmut Kopka and Patrick W. Daly, 4th Edn., 2004, Addison Wesley Longman Ltd.

Ms. Neetu Verma
Coordinator
Physics Department

Dr. Neeti Goel
Convener
Physics Deptt.

ADD-ON COURSE -V

SCHEDULE

Distribution of syllabus to be taught for ADD-ON Course 2023-24

Duration of course: 30 hours

Topics	Name of teacher	Hours	Date
Inaugural Session	----------	---------	09th March 2024
Introduction about latex and overleaf, creating a document in Overleaf, uploading a project, Copying a project.	Nihal Kumar	3	09th March 2024
Creating a project from a template using the Overleaf project menu, Including images in Overleaf	Dr. Neeti Goel	2	16th March 2024
Exporting your work from Overleaf	Dr. Nidhi Tyagi	2	17th March 2024
Working offline in Overleaf, Debugging Compilation timeout errors.	Neetu Verma	3	23rd March 2024
Creating your first LaTeX document, Choosing a LaTeX Compiler, Paragraphs and new lines, Bold, Italics and Underlining, Colours to a block of text.	Dr. L. Thansanga	2	30th March 2024
Lists	Dr. Shobha	2	31st March 2024
Figures: Inserting Images and Positioning Images, labelling	Dr. Mamta	2	06th April 2024
Tables: Inserting Tables and Positioning Tables, labelling	Dr. Ravindra Singh	2	07th April 2024
Lists of Tables and Figures, Adding references and citations.	Anil Awasiya	2	13th April 2024
Mathematical expressions, Subscripts and Superscripts,	Dr. S.S. Gaur	2	14th April 2024
Brackets and Parentheses, Matrices, Fractions, Binomials	Dr. Neeru Sharma	3	20th April 2024
Integrals and Vectors, aligning equations, Operators, spacing in math mode, limits, Display,	Dr. Surendra Kumar	3	27th April 2024

Cont'd

ADD-ON COURSE -V

List of Greek letters and math symbols, Mathematical fonts, Using the Symbol Palette in Overleaf and **Assingment**	Parth Kasana	2	28th April 2024
Certificate Distribution	-------	-------	9th May 2024

Note: Classes will be held in online mode and timings of classes will be from 5 -7 pm.

Neetu Verma

Ms. Neetu Verma
Coordinator
Physics Department

Dr. Nuti Goel
Convener
Physics Deptt.

ADD-ON COURSE -V

REPORT

ADD ON COURSE REPORT

LATEX FOR ACADEMIC WRITING

(9TH MARCH, 2024 – 28TH APRIL, 2024)

DEPARTMENT OF PHYSICS

SHIVAJI COLLEGE

During 9th March,2024 to 28th April, 2024, the Department of Physics at Shivaji College, University of Delhi, organized an online Add-on Course entitled "Latex for Academic Writing" of total 30 hours duration. This course was conducted via the Google Meet platform.

The classes were conducted by department faculty members on weekends during evening time, aimed to benefit as many students as possible, recognising that students might have other commitments. The course was open to students of all courses/departments, including Sciences, Arts and Commerce. The online lectures offered comprehensive instruction on LaTeX, encompassing installation, formatting, and page layout, to familiarise students with writing research papers, academic thesis, and books.

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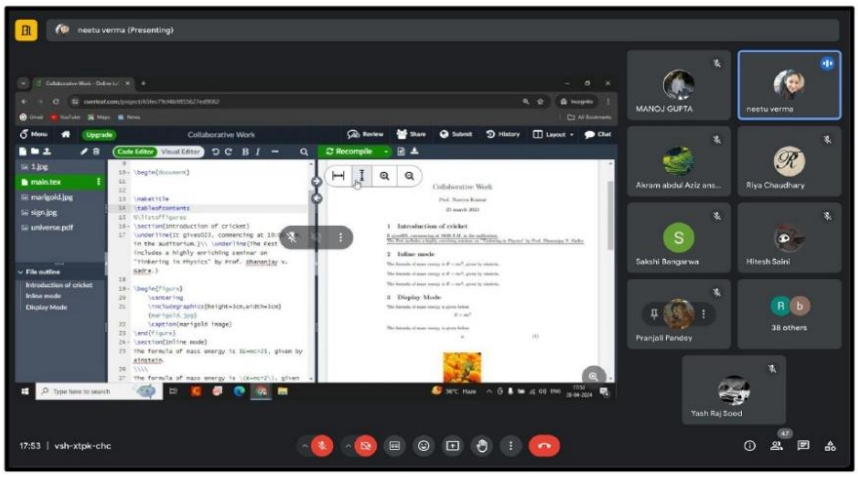
ADD-ON COURSE -V



Throughout the course, teachers guided tasks such as page design, table creation, image inclusion, mathematical formula writing, document importing, content and reference listing, and document enhancement. Students were encouraged to actively participate in the lectures, setting it apart from a typical classroom experience.

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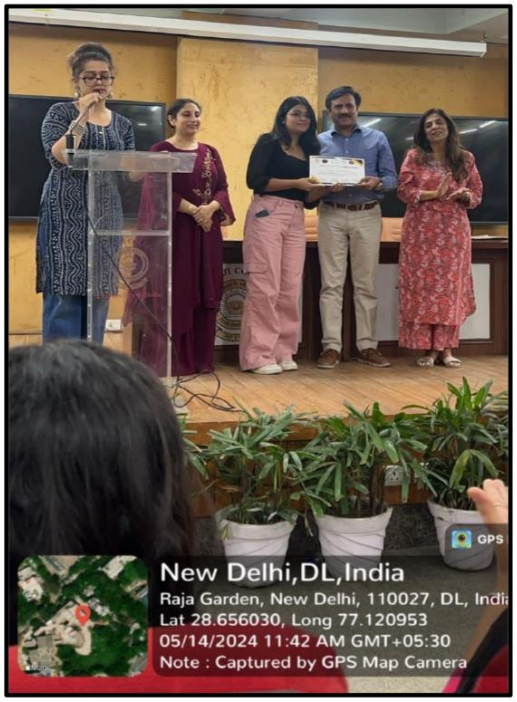
ADD-ON COURSE -V

Around 200 students had registered for this course and after all the evaluation process, we have distributed 50 plus students to completion certificates. In this way, the event was conducted successfully by extending heartfelt vote of thanks to our students and faculty members.



Attendance: -

https://docs.google.com/spreadsheets/d/1xGX14syJFYgRxaLnGKe04NZy-NKP9f6R/edit?usp=drive_link&ouid=105111088306570618186&rtpof=true&sd=true

Feedback Form: -

https://docs.google.com/spreadsheets/d/1x3DrAc1zDz9CKAHnwB_BURvPfDqzIpFd/edit?usp=drive_link&ouid=105111088306570618186&rtpof=true&sd=true

Final List of Students for Certificates: -

https://docs.google.com/spreadsheets/d/1wnhmtlcc-o31wZme54Ijv4ImJbg1o524/edit?usp=drive_link&ouid=105111088306570618186&rtpof=true&sd=true

Ms. Neetu Verma
Coordinator
Physics Department

Dr. Nuti Goel
Convener
Physics Deptt.