St.Xavier's College
Ranchi
Diploma in Computer's Accounting & Taxation
B.Com. & B.Com.(Voc.), Sem-V & VI

1. **Computer Application** 5 Theory & 10
Practical Lab
Unit 1: Word Processing
Unit 2: Preparing Presentations
Unit 3: Spreadsheet and its Business Applications

2. Financial Accounting & Inventory in Tally.erp9 5 Theory & 10
Practical Lab
 Computerised Accounting Systems: Computerized Accounts by using any popular accounting software: Creating a Company; Configure and Features settings; Creating Accounting Ledgers and Groups; Creating Stock Items and Groups; Vouchers Entry; Generating Reports – Cash Book, Ledger Accounts, Trial Balance, Profit and Loss Account, Balance Sheet, Funds Flow Statement, Cash Flow Statement Selecting and shutting a Company; Backup and Restore data of a Company.

3. E-filing of Income Tax & TDS 5 Theory & 10
Practical Lab Lab Preparation of Return of Income
Filing of returns: Manually, On-line filing of Returns of Income & TDS; Provision & Procedures of Compulsory On-Line filing of returns for specified assesses.

4. GST in Tally.erp9 5 Theory & 10
Practical Lab
Introduction & Settings in Tally.erp9, Purchase Voucher with GST, Sales Voucher with GST & GST Reports and E-Returns.

5. Payroll in Tally.erp9 5 Theory & 10
Practical Lab
The Payroll Environment, Basics Payroll Process, Principles of Payment & Deduction, Provident Fund, ESIC, Professional Tax, Income Tax (TDS) & Payroll Reports.

Notes : All practical will be prepared in Tally.erp9 & Govt.Portal

1. Examination Scheme for Computerised Accounting & Taxation - Practical for 100 marks. The   practical examination will be for 3 hours.
2. Theory examination for 100 marks. The Theory examination will be for 3 hours.

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Certificate course in 'Basic Excel Using Statistics'

Course duration- 40 periods

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Introduction to Excel:
- Examining spreadsheet concepts and exploring the Microsoft Office Excel uses.
- Familiarization with Microsoft excel interface
- Understanding and working with the Excel interface – getting to know your way around the application,

Create Worksheets and Workbooks:
- Create a workbook
- Import data from a delimited text file
- Add a worksheet to an existing workbook
- Copy and move a worksheet
- Display hidden ribbon tabs
- Protect a worksheet
- Encrypt a workbook with a password

Selection and navigation in Worksheets and Workbooks:
- Moving around a spreadsheet efficiently.
- Entering information into cells, types of data (text, numbers, dates).
- Copying, pasting, inserting and deleting cells
- Working with multiple Worksheets.
- Search for data within a workbook
- Navigate to a named cell, range, or workbook element

Format Worksheets and Workbooks:
- Change worksheet tab color
- Rename a worksheet
- Change worksheet order
- Insert and delete columns or rows
- Adjust row height and column width
- Hide or unhide worksheets
- Hide or unhide columns and rows

Cell Formatting:
- Basic font formatting,
- Alignment – Including horizontal and vertical alignment, wrapping, merging, orientation,
- Alt-Return, consistent, sensible row heights & column

Number Formatting:
- Types of number (E.g., currency, %, decimal, negative numbers) – and Excel formats best employed.
- Custom number formats and how to maximize impact and clarity

Apply Custom Data Formats and Layouts:
- Apply Custom Data Formats
- Create custom number formats

Create and Modify Custom Workbook Elements:
- Create custom color formats
- Create and modify cell styles
- Create and modify custom themes

Apply Advanced Conditional Formatting and Filtering:
- Create custom conditional formatting rules
- Create conditional formatting rules that use formulas
- Manage conditional formatting rules
- Application of 'Format Painter'

Create Tables:
- Create and Manage Tables
- Create an Excel table from a cell range
- Convert a table to a cell range
- Add or remove table rows and columns
- Manage Table Styles and Options
- Apply styles to tables

Filter and Sort a Table:
- Filter records
- Sort data by multiple columns
- Change sort order
- Remove duplicate records
- Populate cells by using advanced Fill Series options

Cell references:
- How (and why) to connect (or link) cells and ranges, and how connected cells behave.
- Fixed or absolute references (dollar signs) for cells;
- Partially fixed references.

Create Charts and Objects:

Create Charts:
- Create a new chart
- Add additional data series
- Switch between rows and columns in source data

Format Charts:
- Creating simple charts and editing them to control and improve formatting. Choosing the right chart Principles and guidelines for communicating well with charts.
- Resize charts
- Add and modify chart elements
- Apply chart layouts and styles
- Move charts to a chart sheet
- Graphs and Charts

Perform Operations with Formulas and Functions:

Summarize Data by using Functions:
- Insert references
- Perform calculations by using the SUM function
- Perform calculations by using MIN and MAX functions
- Perform calculations by using the COUNT function
- Perform calculations by using the AVERAGE function

Perform Conditional Operations by using Functions:
- Perform logical operations by using the IF function
- Perform logical operations by using the AND, OR, NOT function
- Perform logical operations by using the IF function for nested loops.
- Perform logical operations by using the combination of different conditional functions.
- Perform calculations by using the different STATISTICAL formulas (Mean, Median, Mode, IQR, Mean deviation, Standard Deviation, Karl Pearson's coefficient etc. using cell references and logical operations).

Certificate course in 'Advance Excel and Introduction to SPSS'

Course duration- 40 Periods

Viewing:
- The various 'Views' or modes of spreadsheet display available in Excel, and how to choose the right View for the task in hand.
- Techniques for making working with a spreadsheet easier – Freezing Panes, splitting windows, and using multiple windows.

Perform Data Analysis:
- Perform what-if analysis by using Goal Seek and Scenario Manager
- Creation of data tables (one-way/two- way) and its significance.
- Calculate data by using financial functions

Data handling- Sorting & Filtering:
- Techniques for sorting and filtering data, including controlling the order of precedence in a sort, advanced filters, and an introduction to PivotTables.
- Using sorting and filtering to check and 'clean' data.

PivotTables 1 – Simple Summaries:
- Uses of PivotTables.
- Summarizing data,
- Understanding data (understanding categories, understanding range of values). Interpreting data,
- Filtering. Sorting and grouping

PivotTables 2 – Manipulating Data:
- Create and Manage PivotTables
- Changing the layout and format of data in a PivotTable.
- Changing Value Field Settings.
- Group PivotTable data
- Modify field selections and options
- Add calculated fields
- Format data

PivotTables 3 – Interpreting Data:
- Using PivotTables to understand and interpret data,
- Pivot Charts and Conditional Formatting of PivotTables.
- Create Advanced Charts and Tables
- Create and manage Pivot Charts
- Manipulate options in existing Pivot Charts
- Apply styles to Pivot Charts
- Looking into PivotChart details

Lookup & Reference:
- Looking up information in a basic table,
- Look up data by using Functions
- Look up data by using the VLOOKUP () function
- Look up data by using the HLOOKUP () function
- Format text by using the CONCATENATE function
- Advanced LOOKUP () functions.
- INDEX ()/MATCH () combination.
- Define Named Ranges and Objects
- Name cells
- Name data ranges
- Name tables
- Manage named ranges and objects

Logical Functions:
- Create Advanced Formulas
- Apply Functions in Formulas
- Perform logical operations by using nested functions
- Perform statistical operations by using SUMIFS, AVERAGEIFS, COUNTIFS, IFERROR ()/IFNA () functions.
- Troubleshoot Formulas
- Other statistics. Conditional totals and counts.
- Advanced conditional sums and array formulas.

Excel Financial functions:
To perform many of the common financial calculations
- PV-Returns the present value of an investment
- FV- Returns the future value of an investment
- IRR-Returns the internal rate of return for a series of cash flow
- NOMINAL-Returns the annual nominal interest rate
- NPER-Returns the number of periods for an investment
- NPV-Returns the net present value of an investment based on a series of periodic cash flows and a discount rate

- <u>PMT</u>-Returns the periodic payment for an annuity
- <u>IPMT</u>-Returns the interest payment for an investment for a given period
- <u>PPMT</u>-Returns the payment on the principal for an investment for a given period
- <u>RATE</u>-Returns the interest rate per period of an annuity
- <u>RRI</u>-Returns an equivalent interest rate for the growth of an investment
- EMI Calculation

Overview of SPSS:
- Mouse   and keyboard processing, frequently –used dialog boxes
- Editing output
- Printing results
- Creating and   editing a data file

Managing Data:
- Listing cases, replacing missing values, computing new variables,
- recording variables, exploring data, selecting cases, sorting cases, merging files

Graphs:
- Creating and editing graphs and charts

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Course Content – 9012 IIRS Outreach Certificate course on Basics of SAR Remote Sensing

1. An Overview of SAR Remote Sensing
2. exercise on SAR Image Interpretation (Practical)
3. SAR Systems and Image Acquisition Modes (Lecture)
4. Radiometric and Geometric Corrections of SAR Data (Lecture)
5. SAR data processing and backscatter image generation (Lecture)
6. Information Extraction from SAR data (Lecture)

Course Content – 9013 IIRS Outreach Certificate course on IIRS Outreach Certificate on Health GIS : Geoinformatics for COVID19

1. Planetary Geoscience: Issues and Challenges
2. Geology of the Moon
3. Planetary data downloading and handling
4. Remote Sensing of the Moon: Techniques and Findings
5. Tutorial cum hands on exercises on Hyperspectral data processing
6. Geology of Mars
7. Tutorial cum hands on exercises on Lunar data analysis
8. Microwave remote sensing with emphasis on Indian Moon Missions
9. Remote Sensing of Mars

Course Content – 59 IIRS Outreach Certificate course on Overview of Planetary Geosciences with special emphasis to the Moon and Mars

1. Public Health Surveillance System
2. Cluster and outlier analysis
3. Risk mapping of disease occurrence
4. Dynamic Epidemiology Modeling
5. Exploratory Data Analysis

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