St. Xavier’s College – Autonomous
Mumbai

Syllabus
For 2\textsuperscript{nd} Semester Courses in
B. Voc (Tourism)
and
B. Voc (Software Development)

General Education Component

Theory Syllabus for Courses:

A.BVOC.2.01/S.BVOC.2.01 – Business Communication - II
A.BVOC.2.02/S.BVOC.2.02 – Effective French skills - II
A.BVOC.2.03/S.BVOC.2.03– Giving Voice to Values (SPC.2.01)
A.BVOC.2.04/S.BVOC.2.04–Innovations in Science
LEARNING OBJECTIVE:

- To facilitate advancement in career based on students’ need to present his or her personality efficiently.
- To equip the students with the necessary speech skills/basic writing skills for professionally interacting with others in an effective manner

[Total Lectures 45]

Unit 1 Advanced Communication Skills

1. Initiating, Sustaining and Closing a Business Conversation. Selling skills: closing a sale
2. Participating in Business Discussions
3. Making Formal Speeches
4. Diction and pronunciation.

Unit 2 Telephone Skills

1. Agreeing and Disagreeing in Industry
2. Appointments and Friendly Reminders
3. Making and Handling Complaints

Unit 3 Internet Communications Skills

1. Drafting business e-mails
2. Attending to queries
3. Email etiquette.
4. Writing blogs and articles.

Unit 4 Office Communication

1. Presentation Techniques including making power point presentations.
2. Group Discussions
3. Situational Role Play
Continuous Internal Assessment
Assignments / Projects/ Presentations/ Written Test etc.

References:

LEARNING OBJECTIVE:

- Discover a few aspects of French life: people, food, customs...
- Learn basic vocabulary to express simple sentences to talk about oneself.
- Acquire basic communication skills to buy something, to ask for/give directions.
- Develop skills and confidence to converse in a very basic manner with a French speaking person beyond introductions.

[Total Lectures 45]

Unité 5

Objectifs de communication: Thème: Ma chambre/Ma maison/Ma ville
Parler de sa chambre. Situer dans l'espace.

Grammaire
Il y a un/une/des… dans ma chambre
Les prépositions: sur, sous, devant, derrière, à coté de, près de, pour localiser les objets.
Les nombres: premier, deuxième… dixième
Négation: ne – pas
Impératif

Phonétique
Les voyelles nasales

Culture et Civilisation
La carte de France pour voir les villes importantes en France
Ou L’importance de quelques villes en France.
Quelques coutumes françaises.

Thèmes tâches et projets:
Décrire sa chambre/sa ville-phrases simples (genre: il y a une poste, un cinéma....)
Remplir avec du vocabulaire et des verbes une petite histoire simple
Localisation des objets.
Lecture à voix haute

II Unité 6

Objectifs de communication: Les repas
Parler des repas du jour
Savoir dire L’heure et la date

Grammaire
Les articles partitifs
Verbes – faire/dire
Les adjectifs démonstratifs

**Phonétique**
Opposition {u} {Y}

**Culture et Civilisation**
Les spécialités gastronomiques en France
Les repas en France et en Inde
Commander un plat au restaurant/dans un fast-food.

**Thèmes, tâches et projets**
Parler des repas en France
Parler des spécialités gastronomiques ou quelques phrases sur une ou deux fêtes importantes: exemple Pour la fête de Sankranti on mange../on porte../on donne../

III Unité 7

**Objectifs de communication: Theme: Les vacances**
Parler des goûts / des passe-temps et des vacances

**Vocabulaire:**
Parler de ses activités.
Parler de ses loisirs
Quelques vêtements

**Grammaire**
Les interrogations: Qui/Quand/comment/pourquoi?
Prépositions à/ chez
Les adjectifs possessifs

**Phonétique**
Intonation des phrases déclaratives/interrogatives

**Culture et Civilisation:**
La carte de France avec ses régions importantes.
Quelques sites touristiques .

**Thèmes, tâches et projets:**
Remplir une carte postale à trous.
Acheter un souvenir/un t-shirt dans un magasin de souvenirs.

**Continuous Internal Assessment:**
Evaluation will be based on oral and written continuous tests in class.
References:
Select Bibliography:
Publication
Hachette:
  1  Bien Joué 1
  2  Alter Ego 1
  3  Le kiosque
Clé International
  1  Amis et Compagnies 1
  2  Grammaire Progressive du Français
Hatier
  1  Premiers Exercices de Grammaire
Magazine Langers publication
On y va

Video Methods:
  1  Taxi
  2  Connexions
LEARNING OBJECTIVE:

- To familiarize students with foundational value concerns.
- To help students to critically analyse and develop their own values.
- To enable students to take practical steps to act on their values.

[Total Lectures 45]

UNIT – I: Value Clarification [5 lectures]
- What is a value?
- Exercises to reveal values.
- Value Formation.

UNIT – II: Comparative Religions [7 lectures]
- Inter-religious sensitivity: main ideas from the major religions
- Sharing Faith: what is the religious meaning that is precious to you
- Breaking through stereotypes
- Communalism and Building community

UNIT- III: Corruption as a way of life [5 lectures]
- Case studies e.g. CWG, Adarsh, 2G, Coalgate…
- Attempt to analyse causes
- Strategies to avoid corruption: RTI, Civil society groups, other strategies to bring accountability and transparency

UNIT – IV: Violence and Conflict Resolution [5 lectures]
- Understanding violence and conflict
- Causes and forms of violence and conflict
- Conflict resolution

UNIT - V: Youth and Substance Abuse [6 lectures]
- Substance abuse - Causes and symptoms
- Forms of substance abuse - Alcoholism, Drug addiction, Smoking
- Preventive and curative measures
UNIT – VI: The problem of evil [4 lectures]

- Conceptualising evil
- Manifestations of evil
- Mitigation

UNIT – VII: Prayer - communal and personal [3 lectures]

- What is prayer?
- The importance of prayer and silence in one’s life

UNIT – VIII: Critical Thinking [3 lectures]

- What is critical thinking?
- The value of critical thinking
- Analysis of Newspapers, TV, Film

UNIT – IX: Ethical Relationships [7 lectures]

- Young People: Suicide, Depression, Ragging
- Causes and symptoms
- Coping strategies

Continuous Internal Assessment:

Presentations / Tests / assignments

References:

- In Harmony: Value education at college level- Department of Ethics and Religious studies, Loyola College, Chennai.
- Y Masih , Introduction to Religious Philosophy – (Chapters- 1, 2, 13, 15)
- Godfrey Harris , Corruption: How to deal with its impact on Business and Society-
- Irving G Sarason and BarabaraSarason, Abnormal Psychology ( Chapter- 13- Substance Abuse: Drugs / Alcohol)-

Resources:

Film: The Four Religions – Arnold Toynbee
Film: The Seven Circles of Prayer – Martin Smith
Film: God in the Dock – Ellwood Kieser
Film: Teenage depression and suicide – Andrew Schlessinger
Film: Portrait of addiction- Moyers collection on DVD- Films for Humanities and sciences.
LEARNING OBJECTIVE:

- To develop an understanding of the world of science and its relevance to the 21st century.
- To develop critical thinking ability using scientific methods through the study of the milestone innovations of the 20th Century.
- To analyze these innovations for their relevance to society.

[Total Lectures 45]

UNIT 1.[15]

Brief History of Modern Science:
Important Innovations in the 18-19 Century and its impact on society:

Advances in Basic Sciences-
Physics, Chemistry, Biology

Advances in Technology:
Industrial Revolution, Wireless communication – Telegraphy, Radio, Computer

UNIT 2.[15]

Important Innovations in the 20th Century: Physical Sciences and Technology

Advances in Astronomy and Cosmology:
How do Stars Shine? : Energy production, Life Cycle of Stars,
The Large scale structure of Universe: Galaxies and Beyond
The Atomic and Nuclear Physics: Supports and Destroys life

Advances in Technology: Invention of a Transistor, Automobiles, Airplanes, Phones, Personal Computers, Internet etc.

Advances in Geology: Plate Techtonics, Gemmology, etc.

Advances in Chemistry and its use in daily life.

UNIT 3.[15]

Important Innovations in the 20th Century: Biological Sciences and Technology
Topics from Biochemistry, Biophysics, Molecular Biology:

Biodiversity, Medicinal Plants, etc.

Understanding Life,

The Cell Structure, DNA double helix structure, Genome Project, etc.

Health and Environment:

Hormones and Health, Medical Advances: Antibiotics, etc.

**Continuous Internal Assessment**
Assignments / Projects/ Presentations/ Field trips etc.

**References:** Specific references for every topic will be provided by lecturers.

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**St. Xavier’s College – Autonomous**

**Mumbai**

**Syllabus**

For 2\textsuperscript{nd} Semester Courses in B. Voc

(Software Development)

(June 2014 onwards)
Contents:

Theory Syllabus for Courses:

S.BVOC.2.05 – Structured Query Language (SQL)

S.BVOC.2.06 – Advanced Features of office Automation software

S.BVOC.2.07 – Financial and Accounting Tools

S.BVOC.2.08 – Object Oriented Programming using JAVA

Practical Course Syllabus for: S.BVOC.2.PR

B. Voc. (Software Development) Semester II COURSE: S.BVOC.2.05

Structured Query Language (SQL)

Learning Objective:

To learn the concept of database systems and software techniques for manipulating and maintaining databases

Number of lectures: 45

Unit 1: Introduction to Databases 5 Lectures

What is database system, purpose of database system

Data models-file management systems, hierarchical databases, network databases

Relational data model- Primary key, foreign key, relationships

Codd’s 12 rules

ER Diagrams

Unit 2: Creating a database 15 Lectures

Table definitions - creating a table, drop a table, alter table, table aliases

Database updates-insert, update, delete, Adding data to the database, deleting data from the database, modifying data in the database
**Data Integrity** - What is data integrity, simple validity checking, integrity constraints, referential integrity

**UNIT 3 : SQL Basics**

**Simple Queries** - Select statement, FROM clause, duplicate rows(DISTINCT), row selection, search conditions, sorting query results

**Summary queries** - Column functions(SUM, AVG, MIN, MAX, COUNT), grouped queries(GROUP BY clause)

**UNIT 4 : Subqueries**

**What is a subquery**, subqueries in WHERE clause

**Subquery search conditions** - subquery comparison test(=, <>, <, <=, >, >=), set membership test(IN), the existence test(EXISTS), quantified tests(ANY and ALL)

Continuous Internal Assessment

Assignments / Project

Mid Term test.

References:

Text Books


B VOC (Software Development) SEMESTER II COURSE:S.BVOC.2.06

Advanced Features of Office Automation Software

Learning Objective:
To equip with advanced features of office automation software Microsoft Excel, so that they can apply this skill for office jobs in banking and finance domain and also across different industries.

[Total Lectures 45]

UNIT 1 (15 lectures)

WhatIf Analysis
--Goal Seek
--Data Tables
--Scenario Manager
--Understanding Solver
--Configuring Solver

Charts
--Using Charts
--Formatting Charts
--Using 3D Graphs
--Using Bar and Line Chart together
--Using Secondary Axis in Graphs
--Sharing Charts with PowerPoint / MS Word, Dynamically
--(Data Modified in Excel, Chart would automatically get updated)

New Features Of Excel
--Sparklines, Inline Charts, Data Charts
--Overview of all the new features
UNIT 2  
(15 lectures)

Understanding Financial Functions

PMT, FV, PV, Compound Interest, Calculating Loan EMI

SLN, SYD, DB, DDB, VDB

Macro

Recording a Macro, Playing Macro, Placing Macro on Quick Access Toolbar, Attaching Macro to a Button inside worksheet.

Swap Values, Run Code from a Module, Use Relative References, MacroSecurity, Protect Macro. Examples using Macro

UNIT 3  
(15 lectures)

Introduction to VBA

Creating Developer Tab, Purpose of VBA, Add command button to spreadsheet,

Simple programs to read from and write to an excel sheet some data

Variables in VBA

Option Explicit, Variable Scope, Life of Variables.

MsgBox Function, InputBox Function to accept variable values and display output.

If Then Statement using VBA

Logical Operators, Select Case, Tax Rates, Find Second Highest Value, Sum by Color, Delete Blank Cells.

Loop in VBA

Loop through Defined Range, Loop through Entire Column, Do Until Loop, Step Keyword, Sort Numbers, Randomly Sort Data, Remove Duplicates.

Userform, Controls in VBA

Userform and Ranges, Currency Converter, Progress Indicator, Multiple List Box Selections, Multicolumn Combo Box, Dependent Combo Boxes, Loop through Controls, Controls Collection, Userform with Multiple Pages, Interactive Userform.

Adding Calendar control.

Function and Sub in VBA

User Defined Function, Custom Average Function, Volatile Functions, ByRef and ByVal.

TEXT BOOKS
REFERENCES BOOKS

1. Microsoft Excel 2013 VBA and Macros by Bill Jelen – Pearson Publication
2. Excel 2010 Bible – John Walkenbach

Websites

3) http://www.excel-easy.com/

Note: students can use version of office from office 2007 onwards to office 2013

BVoc (Software Development) Semester II Course: S.BVOC.2.07

FINANCIAL AND ACCOUNTING TOOLS

Learning Objective:

- Have an understanding of basic Accounting Concepts and Principles.
- Be able to generate Accounting, Vouchers and Basic Reports in Tally.

Number of lectures: 45

Unit I

1. Basics of Accounting (Revision):


2. Fundamentals of Tally.ERP 9
Introduction and historical background (with respect to Microsoft Excel)
- Growth of Tally.ERP 9
- Advantages and Salient Features of Tally.ERP 9
- Challenges associated with accounting on computers and solutions there on
- Software training to enhance employability
- Career Opportunities - Tally Executive, Accounts, Audit & Finance Manager

Unit II

3. Getting Functional with Tally.ERP 9
- Creation / Setting up of Company in Tally.ERP 9
- Ledger Creation with predefined Primary Groups
- Predefined Sub Groups and New Sub Groups
- Accounting Masters in Tally.ERP 9
- F11: Features
- F12 : Configurations
- Setting up Account Heads

4. Voucher Entry in Tally.ERP 9
- Accounting Vouchers
- Receipt Vouchers
- Payment Vouchers
- Contra Vouchers
- Journal Vouchers
- Accounting Voucher Entries
- Inventory Accounting- Inventory Voucher Entries

Unit III

5. Generation of Reports
- Trial Balance
- Profit & Loss A/c
- Balance Sheet
- Funds Flow Analysis
- Cash Flow Analysis Statement
- Accounting Ratios
- Bank Reconciliation Statement
- Reporting and Printing
- Reporting & Office Documentation in MS Word and MS Excel

Reference Material:
Object Oriented Programming using JAVA

Learning Objective:

To learn Core Java fundamentals, To understand how java is used in object oriented programming. To develop strong foundation for building projects in java.

[Total Lectures 45]

UNIT 1: Classes in java
General form of a class, declaring Objects, introducing Methods, Passing different parameter to method like int, double, String ,String[], Object , Constructors and types of Constructors, this keyword, Understanding Object class and its methods

UNIT 2: Inheritance, Packages and Interfaces
Inheritance basics,
using super,
creating multilevel hierarchy,
method overriding,
dynamic method dispatch,
using abstract classes ,
using final
Packages, Access Protection,
Importing Packages,
Defining a Package, Finding Packages and CLASSPATH

A Short Package Example,
Access Protection, An Access Example,

**Interfaces**, Defining an Interface

implementing Interfaces,

Variables in Interfaces,

Interfaces Can Be Extended

**UNIT 3 : Collection Framework and Exceptional Handling** [10]

**Collection interface**

**Collection classes**

ArrayList, Vector, HashSet, Using Iterator

**Exception handling**

Exceptional Handling fundamentals,

Exception Types Uncaught Exceptions,

try and catch, multiple catch clauses,

nested try statements, throw, throws

finally

**UNIT 4 : JDBC and Swing** [10]

Steps to connect to database from Java

Understanding ResultSetMetadata interface

Creating GUI with JTextField, JButton, JComboBox, JLabel, JRadioButton, JCheckBox.

Understanding Layouts GridLayout, FlowLayout, BorderLayout

Create Login screen and authenticating from database
UNIT 5: String Handling

String constructor, Character extraction, charAt(), getChars(), toCharArray()

String comparison, equals() and equalsIgnoreCase(), startsWith(), endsWith()
compareTo(), Modify a string, substring(), concat(), replace(), trim(), StringBuffer
Constructor, length() and capacity(), charAt(), insert(), append(), reverse(), delete() and
deleteCharAt(), replace(), substring()

Continuous Internal Assessment

Assignments / Project

Mid Term test.

List of Text Books:

1. Java 2 Complete Reference by Herbert Schildt. --TMH Publication

List of Recommended Reference Books

1. Java 2 Programming Black Book, Holzner
2. Programming with Java, EBalagurusamy

B. VOC (Software Development) Course:
S.BVOC.2.PR

PRACTICALS

PRACTICAL LIST FOR SQL

Learning Objective:

To introduce the concept of databases and to use SQL software for handling large data operations using queries.
List of practicals:

I) Design a table with the given fields. Use the drop table and alter table commands on the created table.

II) Use the insert, update and delete commands on the tables.

III) Apply the constraints like Primary Key, Foreign key, NOT NULL to the tables.

IV) Write a SQL query to select data from tables.

V) Write a SQL statement for implementing ALTER, UPDATE and DELETE

VI) Write a query to implement the concept of Integrity constrains

VII) Write a query for implementing the following functions:

   SUM(), MAX(), MIN(), AVG(), COUNT()

VIII) Write a subquery in the where clause of the main SQL query using the subquery comparison test (=, <>, <, <=, >, >=), set membership test (IN), the existence test (EXISTS)

Assessment:

CIA and End Semester Exam based on the practicals will be conducted.

PRACTICAL LIST FOR ADVANCED EXCEL

Learning Objective:

To equip with Advanced features of Excel like solver, financial functions

So that they can apply this skill for office jobs in banking and finance sector and also across different Industries.

List of practicals:

*based on financial functions*
1) An employee from organization has taken home loan of Rs 20Lac at the interest rate of 10.5% annually for a period of 20 years. Find the EMI he has to pay monthly using Excel financial function.

2) If an employee makes monthly payments of Rs 1074 on a 20-year loan, with an annual interest rate of 8%, how much can he borrow? Use excel financial function.

3) If an employee makes monthly payments Rs 1074.65 on a 20-year loan, with an annual interest rate of 6%, has he pay off this loan? Find using excel financial function.

4) Calculate the depreciation for
   a) First year
   b) Second and Third year
   c) Fourth and fifth year
   of an asset that cost Rs10,000 at the start of year 1, and has a salvage value of Rs1000 after 5 years. Use excel VDB function.

5) Prepare a report in excel in the following format

Depreciation is prepared using DDB, SLN, SYD methods

| Cost of computer: 40000 Rs |
| Salvage Value: 5000 Rs |
| Life: 10 Years |

<table>
<thead>
<tr>
<th>YEARLY DEPRECIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period in Years</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
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<td>4</td>
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<td>8</td>
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<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>
Based on charts and graphs:

6) Import NorthWind database in excel then use Categorysales table and show pie chart to display total sales in different category.

7) Import NorthWind database in excel as pivot table using Customer table and show different analysis on it.

8) Create table for sales as follows:

<table>
<thead>
<tr>
<th>Location</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>West</td>
<td>Rs 245666</td>
<td>Rs 45999</td>
</tr>
<tr>
<td>East</td>
<td>Rs 345666</td>
<td>Rs 45000</td>
</tr>
<tr>
<td>North</td>
<td>Rs 14500</td>
<td>Rs 25999</td>
</tr>
<tr>
<td>South</td>
<td>Rs 845666</td>
<td>Rs 15999</td>
</tr>
<tr>
<td>Central</td>
<td>Rs 645666</td>
<td>Rs 55999</td>
</tr>
</tbody>
</table>

Now prepare donut chart (ring chart) and compare the result. Also list the advantage of donut(ring) chart over pie chart.

Based on Goal seek and Solver:

9) Prepare table showing following fields:

<table>
<thead>
<tr>
<th>StudentName</th>
<th>test A</th>
<th>test B</th>
<th>Asgn</th>
<th>Final Grade</th>
</tr>
</thead>
</table>

Test A is worth 25% test B is worth 25% and Asgn is worth 50% and Final grade is showing out of 100%. Using goal seek determine:

a) If a student needs 80% grade in final grade then what he must score in asgn to achieve it provided test A and test B marks are known.

b) If a student needs 70% grade in final grade then what he must score in test A to achieve it provided his marks in test B and asgn are known.
10) Define solver. What are the limitations of Goalseek?

a) if a student needs 85% grade in final grade then what he must score in asgn and test A to achieve it provided only test B marks is known and ensure that it doesn't cross max limit.

**Based on macro and VBA:**

11) write macro to delete all the blank rows from table

12) write VBA code to create multiplication table asking the input from user

Example → enter the table you want: ______

   OK

On click of OK it displays multiplication table

13) create the table called as registration which has fields

   Rno   name  sub1  sub2  percentage

   **Max  Min**

   Sub1 and sub2 are out of 100 Marks.

   a) On click of Max button it should display the name of student who has scored highest percentage

   b) On click of Min it should display the name of student who has scored min marks in sub1 along with marks obtained.

14) Demonstrate excel string function to extract last 3, first 3, mid 3 characters from string

Accept the string from the user.

15) Write VBA / Macro program to copy the content of one sheet to another.

16) Write VBA / Macro program to copy the names of students from one sheet to another who have scored less than 40% marks.

**Assessment:**

CIA and End Semester Exam based on the practicals will be conducted.
TALLY PRACTICAL LIST

Learning Objective:

To introduce the Hands-on Training using Tally Software developed by Tally solutions Pvt.Ltd. for the Finance and Accounts offices.

List of practicals:

Creation / Setting up of Company in Tally.ERP 9
- Ledger Creation with predefined Primary Groups
- Accounting Masters in Tally.ERP 9
- Setting up Account Heads

Voucher Entry in Tally.ERP 9
- Accounting Vouchers
- Receipt Vouchers
- Payment Vouchers
- Contra Vouchers
- Journal Vouchers
- Accounting Voucher Entries
- Inventory Accounting- Inventory Voucher Entries

Generation of Reports
- Trial Balance
- Profit & Loss A/c
- Balance Sheet
- Cash Flow Analysis Statement
- Bank Reconciliation Statement
- Reporting and Printing
- Reporting & Office Documentation in MS Word and MS Excel

JAVA PRACTICAL LIST

Learning Objective:

To introduce the concept of object oriented programming using JAVA programming language.
List of practicals:

1. Design a program to implement the concept of a class, object and methods
   Define a class Box with instance variables height, length and breadth and methods volume() and area() to display the volume of the box and area of base of the Box. Define a method getData() to initialize the instance variables. Create 2 objects of this class and display the area and volume.
   Also implement the concept of constructors and type of constructors (parameterized constructors)

2. Design a program to implement the concept of inheritance
   Create a class Rectangle that includes the data member for length and width as well as constructors to assign values and methods to display them. Derive a class named block that contains additional members to store height and constructors to assign the values and method to display the height.

3. Design a program to implement interfaces
4. Create a login screen and authenticate the user by matching username and password through database
5. Design a GUI application to input the name, roll no and marks of five subjects and display the percentage of the student
6. Design a program to implement exception handling: try and catch, throw, throws finally
7. Design a program to implement String handling functions
8. Write java program to find whether the string is a palindrome or not

Assessment:
CIA and End Semester Exam based on the practicals will be conducted.