

## The Spoken Tutorial project

- \*Self explanatory - uses simple language
- \*Audio-video - uses multisensory approach
- \*Small duration - has better retention
- \*Learner-centered - learn at your own pace
- \*Learning by doing - learn and practice simultaneously
- \*Empowerment - learn a new FOSS

## Target Group

- \*Students - High School and College
- \*Working professional - Software users, developers and trainers
- \*Research scholars
- \*Community at large

## Workshops

The Spoken Tutorial Projects Team conducts workshops on LibreOffice and other FOSS using Spoken tutorials and gives certificates to those who pass an online test.

**For More details, please write to**  
[contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)

The Spoken Tutorial Project is funded by the National Mission on Education through Information and Communication Technology, Ministry of Human Resource Development, Government of India.

## Contact us

**Email:** [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)  
**Website:** <http://spoken-tutorial.org>



IIT Bombay

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Spoken Tutorial

 **LibreOffice**  
The Document Foundation



National Mission on Education through  
Information and Communication Technology  
(NMEICT)  
[www.sakshat.ac.in](http://www.sakshat.ac.in)

Funded by MHRD, Government of India

<http://spoken-tutorial.org>

## Libreoffice Introduction

LibreOffice is a powerful free and open source personal productivity suite for Windows, Macintosh and GNU/Linux OS.

It gives you six feature-rich applications for all your document production and data processing needs: Writer, Calc, Impress, Draw, Math and Base.

These tools are supported and documentation is free from a large, dedicated community of users, contributors and developers. The comparison with Microsoft office suite would be as follows:

- Writer = Word
- Calc = Excel
- Base = Access
- Impress = PowerPoint

It also offers Draw, a program that lets you build sketches and diagrams and Math an equation editor.

## Features

- \*LibreOffice is a comprehensive, professional quality productivity suite available for free.
- \*It is available in more than 30 languages and for all major operating systems, including Microsoft Windows, Mac OS X and GNU/Linux.
- \*It's free & requires no license costs or annual fees.
- \*It has no language barriers- It's available in a large number of regional languages.
- \*Public license- use it, customize it, hack it and copy it.

\* LibreOffice suite gives you high quality & very professional tools.

\* Simple-to-use yet powerful interface that is easy to personalize.

\* It is designed to be compatible with other major office suites.

\* It is compatible with all popular file formats like doc, docx, xls, xlsx, ppt, pptx

## What Libreoffice offers

### Writer

This is the word processor component of LibreOffice suite. This is a handy tool for drafting a letter to producing an entire book with tables of contents, illustrations and diagrams. It gives you the option of auto-completion, auto-formatting and automatic spell check while you type.

### Calc

Calc is the spreadsheet management tool of LibreOffice Suite. It helps in managing your numbers and data efficiently. Analyze your data with Calc and then use it to present your final output. A fully-integrated help system makes easier work of entering complex formulae.

### Impress

This is the fastest and easiest way to create effective multimedia presentations. You can incorporate animation and special effects in your presentation using Impress.

### Draw

Draw lets you build diagrams and sketches from scratch. A picture is worth a thousand words, so why not try something simple with box and line diagrams? easily create lowcharts, route maps & other such based diagrams. Or else go further and easily build dynamic 3D illustrations with special effects.

### Base

This is the database front end of the LibreOffice suite. With Base, you can seamlessly integrate your existing database structures into the other components of LibreOffice, or create an interface to use and administer your data as a stand-alone application.

### Math

It is a simple equation editor that lets you layout and display your mathematical, chemical, electrical or scientific equations quickly, in standard written notation. Even the most-complex calculations can be understood, when displayed correctly.



  
Principal

Lucknow Public College of Professional Studies  
Vinayra Khend, Gomti Nagar, Lucknow



## Spoken-tutorial Project, IIT Bombay



### E-Brochure

Name of FOSS	Applications	Commercial equivalent	Employability	Department
Linux-Ubuntu	Virus free, robust Operating System	Windows	Technician or System administrator for Computer Vendors (SME's), Indian Railways, Municipal Corporations, Air India and many SME's	Computer Science, IT, ECE, Electronics
LibreOffice -	Basic computer usage Office suite for documents, spreadsheets, presentations, database etc.	MS-Office	Administration, Data entry personnel, Travel Agency Assistant, Indian railways, Municipal corporations, Govt. offices	All the departments
Writer	Word Processing, Documentation	Word		
Calc	Spreadsheets	Excel		
Impress	Presentations	Powerpoint		
Base	Managing Databases	Access		
Draw	Drawing	Paint		
Math	Mathematical Operations	MathType		
PHP&MySQL	Web development and Database Management	.NET	Website Developer in all types of small and large enterprises, popular companies hiring PHP&MySQL trained persons are Air-India, Bridge & Roof Co., Media channels, agencies etc.	Computer Science and IT
C/C++, Java, Netbeans and Python	Programming language		Programmer in SMEs working in C, Java, Netbeans and Python, Lab-Assistant in colleges. Popular companies requiring programmers on C/C++, Java and Python are HCL technologies, Wipro, L&T, TCS	Computer Science and IT

*Asit Singh*  
Principal

Name of FOSS	Applications	Commercial equivalent	Employability	Department
Scilab	Scientific Computation package for numerical computations	Matlab	Value addition in technical problem solving via use of computational methods for engineering problems, Applicable in Chemical, ECE, Electrical, Electronics, Civil, Mechanical, Mathematics etc.	Computer Science, IT, Electronics, ECE, Mechanical
LaTeX	Document markup language and preparation system for Tex typesetting	MS-Word	Value addition to academic Skills set. Essential for International paper presentation and scientific journals.	All the departments
OpenFOAM	For Fluid Mechanics to solve and create fluid movies	Fluent	Companies like AUDI, Tata Steel, Volkswagen, etc. have started using it. Also Indian Govt. agencies like BARC (Babha Atomic Research Center ) are making use of this free software.	Mechanical
Oscad - now FreeEDA	EDA tool for circuit design, simulation, analysis and PCB design.	Orcad	PCB designer in SME's and academic institutions, Lab assistant for Electronic Circuit Lab, Electronic network designer.	ECE, Electronics, EEE, Electrical
Firefox	Web browser	Internet Explorer	System Administrator and Lab assistant in SME's and academic Institutes	All the departments
GIMP, Q-CAD	Image Editing and Graphic Design	Photoshop	Self employed photo editor, editor in photostudios, graphic design job in gift stores, advertising agencies, etc.	Arts and Textile designing, Fashion designing, Architecture
Blender	Animation and Computer Graphics	Maya 3D	Animator in graphic and animation media, film etc. Sectors, such as advertising computer games, TV, education, interior-decoration, etc.	Arts, Design
Ruby	Programming language		Ruby was used to implemented the reactive control part for the Siemens service robot. Ruby Web Dialogs based app to manage and track oncall and on-site support for the IT help desk and IT operations teams.	Simulations, 3D Modeling, Business, Robotics, Networking, System Administration, etc.



Name of FOSS	Applications	Commercial equivalent	Employability	Department
Perl	High-level programming language	Basic, Ruby, Awk, assembler, PDL, TCL, Octave, Guile, SLang, Befung and Lua	Perl has been called the system administrator's best friend for its ability to make common tasks easy. Perl's process, file, and text manipulation facilities make it particularly well-suited for tasks involving quick prototyping, system utilities, software tools, system management tasks, database access, graphical programming, networking, and web programming.	Web developers, system administrators. Mathematicians, geneticists, journalists, managers , etc.
Cell Designer	Software for Planning & Designing Wireless Communication Systems, Modeling tool		CellDesigner has fully implemented the Korowajczuk 3D model, capable of performing simultaneously outdoor and indoor multi-floor predictions.	Biochemical Networks
GChemPaint	GChemPaint is an editor for 2D chemical structures with a multiple document interface.		GChemPaint is currently being developed as part of The Chemistry Development Kit, and a Standard Widget Tool kit-based GChemPaint application is being developed, as part of Bioclipse.	Chemistry
Inkscape	Graphic Designing	Adobe Illustrator, Coreldraw	Photo editing, Photo Manipulation and Graphic Design	Designing
Jmol Application	Jmol applet is used to explore the structure of molecules. Jmol applet is used to depict X-ray structures.		Jmol returns a 3D representation of a molecule that may be used as a teaching tool, or for research e.g. in chemistry and biochemistry. There is a standalone application and a development tool kit that can be integrated into other Java applications.	Chemistry, Biochemistry

Name of FOSS	Applications	Commercial equivalent	Employability	Department
Bash	Bash is a "Unix shell" command line interface for interacting with the operating system. Bash has the ability to run an entire script of commands, known as a "Bash Shell script" or "Shell script".		Familiarity with GNU/Linux command lines, and familiarity with basic programming concepts is a prerequisite for learning BASH. System administrators will greatly benefit by learning to automate common tasks using BASH.	System administrators
Ascend	ASCEND is a free, open source, mathematical modelling system.		Its main uses have been in the field of chemical process modelling, with its novel modelling language conventions and powerful solver.	Chemical Engineering
Java Business Application	To create a business application from scratch.		To build the business application and provide domain expertise	Library Management System
Kturtle	An educational programming environment which helps in learning how to build logic and how to program, in an easy manner.		Some of its features are: intuitive syntax highlighting, simple error messages, integrated canvas to make drawings on, integrated help function, slow motion or step execution, and more.	All the department
Ktouch	Typing tutor teaches how to type using an online interactive keyboard		Learn typing at your own pace. Gradually increase your typing speed and along with it, your accuracy.	

[www.spoken-tutorial.org](http://www.spoken-tutorial.org)

Link for matching courses using spoken-tutorial

[http://process.spoken-tutorial.org/images/7/72/Matching\\_spoken-tutorial.pdf](http://process.spoken-tutorial.org/images/7/72/Matching_spoken-tutorial.pdf)





# LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES

## ARTIFICIAL INTELLIGENCE

**Duration (40 Hours)**

**Course Specific outcomes:** Artificial intelligence is a broad and fast-growing subfield of computer science concerned with the intelligence demonstrated by machines, in contrast to the intelligence displayed by humans. The general objectives are to learn about computer systems that exhibit intelligent behavior, design intelligent agents, identify AI problems and solve the problems, design knowledge representation and expert systems, design neural networks for solving problems, identify different machine learning paradigms and identify their practical applications.

### Unit-I (10 hours)

Overview of Artificial Intelligence, Goals of Artificial Intelligence, Reasoning, Problem solving, Knowledge representation, Learning.

### Unit-II (10 hours)

Applications of Artificial Intelligence - Self-driving Cars, Google Translate, Amazon's Alexa, Google Maps; Subsets of Artificial Intelligence - learning and Deep Learning.

### Unit-III (10 hours)

Applications of Machine Learning, Amazon recommendation system, Machine Learning used in fraud detection, Machine Learning used in social, Applications of deep learning, Predicting earthquakes, Netflix recommendation system.

### Unit-IV (10 hours)

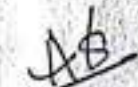
AI vs ML vs DL, Neural Network, What makes Artificial Intelligence so popular?, Popular AI Algorithms - Decision tree, K-means

**Assessment Criteria/ Award of certification:**

Participants who secured 75 % attendance shall be awarded the completion certificate.

  
(Dr. L.S. Awasthi)

Course Coordinator

  
(Dr. L.S. Awasthi)

Denn Academics

  
(Dr. Anil Singh)

Principal  
Lucknow Public College of Professional Studies  
Viharra Road, Gorai Nagar, U.P.





## LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES

### CYBER SECURITY

Duration (40 Hours)

**Course Specific outcomes:** The objective of this course is to familiarize students with

- system and web vulnerability
- evaluate network defence tools
- understand cyber laws and investigate a cybercrime
- prepare report and apply laws for the case.

#### Unit-I (10 hours)

Cyber Space Jurisdiction, Jurisdiction issues under IT Act, 2000, traditional principals of jurisdiction, extra-terrestrial jurisdiction and case laws on cyber space jurisdiction. E-commerce and Laws in India: Digital / Electronic signature in Indian laws, E-commerce; issues and provisions in Indian law, and E-Governance.

#### Unit-II (10 hours)

Intellectual Property Rights, Domain Names and Trademark Dispute: Concept of trademarks in internet era, cybersquatting, reverse hijacking, jurisdiction in trademark disputes, copyright in the digital medium, and copyright in computer programs

#### Unit-III (10 hours)

Developing Secure Information Systems, Information security governance & risk management, security architecture & design security.

#### Unit-IV (10 hours)

Security Policies, Development of policies, WWW policies, email security policies, policy review process-corporate policies-sample security policies, publishing and notification requirement of the policies.

**Assessment Criteria/ Award of certification:**

Participants who secured 75 % attendance shall be awarded the completion certificate.

(Dr. L.S Awasthi)

Dean Academics

(Dr. Anil Singh)

Lucknow Public College of Professional Studies  
Vindhyapar, Prayagraj  
Principal





## LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES

### FRENCH LANGUAGE

Duration (40 Hours)

**Course Specific outcomes:** Develop the capacity to comprehend, analyse and synthesize diverse written and oral information in French. • Enable learners to communicate in an independent manner with little or no help from the native speaker and to attain communicative fluency in French, to have a good knowledge of morph syntactic, lexical and phonological aspects of the language. Develop the ability to apply their knowledge and linguistic skills in a vast and varied range of real-life situations in a French context.

#### Unit-I (10 hours)

**Greeting and Usage:** Les Salutations Vocabulaire Verbeetre, avoirretaller Les nombrecardinauxPresentez-vous Translation

#### Unit-II (10 hours)

**Grammaire:** Les articles; Les adjectifs; Les adjectifsdemonstratifs Vrebes ER, IR et RE; Verbe pronominal; L'imperatif Sentence Construction and Dialogue Articles partitifs et contractes Interrogation La negation Les nationalites; Les jours de la semaine; Les moins de l annee Les couleurs; Les professions Time.

#### Unit-III (10 hours)


**Composition:** Paragraph writing Unseen comprehension Civilisation (France, monuments, lieux, fetes etc).

#### Unit-IV (10 hours)

**Oral Skills Speaking and listening skills:** Oral expression, Reading and answering questions on the text expressing opinion and discussing issues of General interests. French through audio visual methods: songs and Lyrics.

**Assessment Criteria/ Award of certification:**

Participants who secured 75 % attendance shall be awarded the completion certificate.

  
(Mr. Nikhil Kumar)

Course Coordinator

  
(Dr. LS Awasthi)

Dean Academics

  
(Dr. Anil Singh)

Principal  
Lucknow Public College of Professional Studies  
Vasant Vihar, Delhi





**LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES**

**TALLY ACCOUNTING**

**Duration (40 Hours)**

**Course Specific outcomes:**The main objective of this course is to introduce students to the latest version of Tally.ERP9. It provides the advanced concepts of computerized accounting in terms of Tally.ERP9. After completing this course students will be able to understand how Tally.ERP9 can be used to maintain computerized accounts. As all business accounting is done using computers, rightly trained computerized accounting professional can easily secure jobs.

**Unit-I (15 hours)**

**Introduction to Accounting System:** Interrelationship of Computer and Accounting, Application of Computer in Accounting, Purpose of Accounting System.

**Basics of Computerised Accounting System:** Concept, Features of Computerized Accounting, Advantages, Limitations, Sourcing of Accounting Software, Types of Accounting Packages.

**Fundamentals of Tally.ERP9:** Introduction, Features of Tally.ERP9, Technological Advantages of Tally.ERP9, Application areas, Mouse/Keyboard conventions.

**Unit-II (15hours)**

**Working with Company:** Main area, Company information menu, Creating a company, Loading a company, Select company, Gateway of Tally, Accounts/Inventory information.

**Using Company Features:** Accounting features, Inventory features, Alter a company, Delete a company.

**Maintaining Group Company in Tally.ERP9:** Pre-defined groups of accounts in Tally.ERP9, Mapping between Real, Personal, nominal A/cs and Tally Groups, Walkthrough for creating chart of Accounts, Group – Create, Alter & Delete, Ledgers – Create, Alter & Delete.

**Unit-III (10 hours)**

**Accounting Voucher Entry:** Accounting voucher, Predefined vouchers in Tally.ERP9, Creating, displaying & altering voucher types, Debit & Credit rules for vouchers.

**Voucher Entry Configuration:** Voucher entry configuration for accounts, Identification of transactions for different vouchers.

**Recording transactions in Tally.ERP9:** Recording of cash & credit transactions.

**Assessment Criteria/ Award of certification:**

Participants who secured 75 % attendance shall be awarded the completion certificate.



Course Coordinator

(Dr. LS Awasthi)

Dean Academics

(Dr. Anil Singh)

Principal / Professor  
Lucknow Public College of Professional Studies



## LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES

### PERSONALITY DEVELOPMENT PROGRAM

Duration (40 Hours)

**Course Specific outcomes:** After Completion of this program, students would be able to understand themselves and their surrounding environment in a better way and would learn the skills needed to groom themselves as a professional.

#### Unit-I (10 hours)

Understanding Personality - Self-Knowledge -Importance, Benefits, Personality Types, Big Five Model of Personality Assessment, Ways to make People like you- Ways to, Influence or persuade Analyse worry.

#### Unit-II (10 hours)

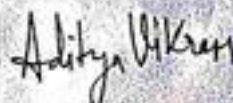
Interview Skills- Dress code, controlling nerves, positive visualization techniques, making first impression, Selling yourself at the interview, Group discussions- Do's and Don'ts, Must and Must Not's for the candidate, Time management skills, How to overcome Procrastination?, Etiquettes- Telephone etiquettes, Netiquettes.

#### Unit-III (10 hours)

Meeting Skills-The meeting agenda, the meeting agenda illustrated, Helpful guidelines, Example meeting minutes, Formal closure of meeting, Action Notes, Plan for efficiency, Negotiating Skills - What is Negotiation?, Winning Negotiation Techniques.

#### Unit-IV (10 hours)

Presentation Skill-Preparing the Venue, pay attention to detail, checking the equipment, Optimize the seating arrangements, considered the needs of your audience, Final preparation details., Getting Started, the Introduction, what style is best, Using Audio-visual Aids – slides, OHP, Teleprompter, Body Language, Communication, Body and Limb Movement, Eye contact, your posture and Stance, Staying in Control, reading signals from your audience, Signals from your audience coping with hostility.



(Mr. Aditya Vikram)

Course Coordinator



(Dr. LS Awasthi)

Dean Academics



(Dr. Anil Singh)

Lucknow Public College of Professional Studies  
Principal





## LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES

### INTRODUCTION TO GST

Duration (40 Hours)

**Course Specific outcomes:** The students will be able to:

- Learn the concept of indirect tax from Pre-GST period to post-GST period.
- Understand the difference between forward charge, reverse charge mechanism and the difference between composite and mixed supply.
- Know the contents and format for various documents like tax invoice, bill of supply, debit note, credit note etc.
- Record and analyze the transactions for compliance under GST.
- Understand the procedure for registration, payment and refund of GST as well as mechanism to determine it.

#### Unit-I (10 hours)

Introduction of GST in India, Components of GST, CGST, SGST, IGST, Definition – Supply- Composite, Mixed, Aggregate Turnover, Person, Business, Appropriate Government, GSTN, GSTIN, GST Models : Single GST & Dual GST.

#### Unit-II (10 hours)

Registration under GST : Persons liable to get registered, Rates Of GST, Registration Procedure, Reverse Charge Mechanism (RCM), E- Return Filing, E-Ledger, E-Invoicing Under GST, Exemption from GST, GST tax rate.

#### Unit-III (10 hours)

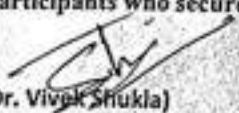
Input Tax Credit (ITC), Eligibility and conditions for taking Input Tax Credit, Apportionment of ITC and Blocked Credit ; Various Documents under GST- Tax Invoice, Bill for Supply, Debit Note, Credit Note, Payment Voucher, Receipt Voucher, E-way bill.

#### Unit-IV (10 hours)

Assessment and Administration of GST - Types of GST Returns, Types of Assessment & Assessment Procedures, Role and Functions of GST Council, Tax deduction at Source & Tax Collection at Source, Refund of Tax.

**Assessment Criteria/ Award of certification:**

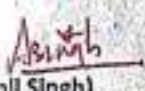
Participants who secured 75 % attendance shall be awarded the completion certificate.

  
(Dr. Vivek Shukla)

Course Coordinator

  
(Dr. L.S. Awasthi)

Dean Academics

  
(Dr. Anil Singh)

Lucknow Public College of Professional Studies  
Principal  
Vishwa Khund, Gorai Nagar, G.S.





## LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES

### INCOME TAX RETURN FILLING AND ASSESSMENT

Duration (40 Hours)

#### Course Specific outcomes:

- Know about the basic concept of Income Tax.
- Understand the provisions of Income tax.
- Understand the provisions relating to residential status and incidence/charge of Tax.
- Students will be able to identify the technical terms related to direct taxation.
- To help the students understand the computation of income and tax thereon.

#### Unit-I (10 hours)

Overview of Income-Tax Law in India, Basic Concepts: Income Tax Act – 1961, Income Tax Rules, Income, Residential Status, Assessment year, Tax Liability, Meaning of Tax.

#### Unit-II (10 hours)

General concepts of Heads of Income. Deductions from Gross Total Income, Computation of Taxable Income of Individuals.

#### Unit-III (10 hours)

PAN Application form 49A, Income Tax Return, E-Filing, Problems in Return Filing, Income tax Slab Rates for Individual, Old Tax Slab and Alternative Tax slab u/s 115BAC, Surcharge, Cess, Rebate, Assessment procedure.

#### Unit-IV (10 hours)

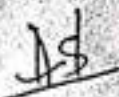
Advance Tax, Interest for Delay in Return Filing, Interest for Non-payment / Short payment of Advance Tax, Penalty.

#### Assessment Criteria/ Award of certification:

Participants who secured 75 % attendance shall be awarded the completion certificate.

  
(Dr. Ashish Kaushal)

Course Coordinator

  
(Dr. LS Awasthi)

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(Dr. Anil Singh)

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Vikas Road, Gorb Nagar, Lucknow





## LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES

### INTRODUCTION OF STOCK MARKET

**Duration (40 Hours)**

**Course Specific outcomes:** The objective of this course is to familiarize the students with

- the conceptual background of securities market
- the concept and role of mutual funds
- the legal and regulatory framework
- fund distribution
- risk, return and performance of funds

#### **Unit-I (10 hours)**

Introduction to Investment: Financial goals of investors, Savings or investment? Investment risks, Risk Profiling, Understanding Asset Allocation, Mutual fund distributors- Kinds and importance, revenue, Legal and Regulatory Framework- Role and support function of service providers, Role of SEBI; Investor Grievance redress mechanism.

#### **Unit-II (10 hours)**

Scheme related information - Mandatory documents, non-mandatory disclosures; Fair valuation principles, Computation of Net Assets of mutual fund scheme and NAV; Concept of Entry and Exit and its impact on NAV; Key Accounting and Reporting requirements.

#### **Unit-III (10 hours)**

The NFO process, Investment plans and services, Allotment of Units to investor, Filing of Application form or mutual funds, Cut off time and time stamping, Financial transaction with mutual fund, KYC requirement, Systematic transactions.

#### **Unit-IV (10 hours)**

General and specific risk factors, Drivers of Return and Risk in a Scheme, Measures of Risk, Provisions with respect to Credit Risk, Benchmark and Performance of Mutual Funds.

Mutual Fund Scheme Selection- investor need, preferences and risk profile, based on investment strategy of mutual funds; Do's and Don'ts while selecting mutual fund schemes.

**Assessment Criteria/ Award of certification:**

Participants who secured 75 % attendance shall be awarded the completion certificate.

(Mr. Chetan Khanna)

Course Coordinator

(Dr. L.S Awasthi)

Dean Academics

(Dr. Anil Singh)

Principal  
Lucknow Public College of Professional Studies  
Vidya Vihar, Gwalior Road, Lucknow





## LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES

### PROGRAMMING IN PYTHON

**Duration (40 Hours)**

**Course Specific outcomes:** The course is designed to provide basic knowledge of Python to students which they can use for problem-solving and programming capability.

#### Unit-I (10 hours)

**Getting Started:** Introduction to Python- an interpreted high-level language, Difference between C & Python, Python Virtual Machine, Execution of program.

**Variables, Expressions and Statements:** Values, Variables and keywords; Operators and Operands, operator precedence, Expressions and Statements.

**Conditional constructs and looping:** if else statement while, for, break, continue, else, pass & return statements.

#### Unit-II (10 hours)

**Functions:** Importing Modules, invoking built-in functions, functions from math module. Defining functions, invoking functions, passing parameters, scope of variables, void functions and functions returning values.

**Strings:** Creating, initializing and accessing the elements; string operators: +, \*, in, not in, range slice; comparing strings using relational operators.

#### Unit-III (10 hours)

**Lists:** Concept of mutable lists, creating, initializing and accessing the elements, traversing, appending, updating and deleting elements; List operations.

**Dictionaries:** Concept of key-value pair, creating, initializing and accessing the elements in a dictionary, traversing, appending, updating and deleting elements.

**Tuples:** Immutable concept, creating, initializing and accessing the elements in a tuple; tuple functions: cmp(), len(), max(), min(), tuple().

**Stacks and Queues with lists.**

#### Unit-IV (10 hours)

**Data File:** Opening and closing files, file object, access modes, reading and writing a file, file positions, renaming and deleting a file.

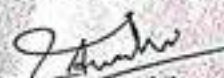
**Classes:** Defining classes, creating instance objects, accessing attributes and methods, using built-in class attributes private attributes

**Inheritance:** Single and multiple inheritance- Overriding methods, using super() in derived class to invoke init() or overridden methods of parent class.

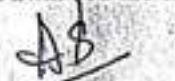
**Data Hiding, MethodOverriding, and Polymorphism Handling, Exceptions:** try...except, try...finally.

**Assessment Criteria/ Award of certification:**

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(Dr. K.S. Awasthi)

Course Coordinator

  
(Dr. LS Awasthi)

Dean Academics

  
(Dr. Anil Singh)

Lucknow Public College of Professional Studies  
Lucknow, India





**LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES**

**SHORT TERM COURSE FOR EFFECTIVE COMMUNICATION SKILL**

**Duration (40 Hours)**

**Course Specific outcomes:**

- To better understanding of communication tools and process
- To better understanding of model and theory of communication
- To learn Practical implications of communication theory

**Unit-I (10 hours)**

Introduction to 6 dimensions of Human beings, Types of communication, Levels of communication and Basic Principle of Social Interaction, Johari window.

**Unit-II (10 hours)**

Applying course theory to real life, Why is interrupting not effective?, Conjecturing, The ambiguity of information perception.

**Unit-III (10 hours)**

Listening and listening levels, Active listening – basics & techniques, Constructive discussion, Why is it important to formulate your thoughts accurately?

**Unit-IV (10 hours)**

Concept of feedback, Basic rules of giving and receiving feedback, Models of providing feedback, Knowledge Implementation and Exercise for training, MD demonstration of constrictive and non-constrictive feedback.

**Assessment Criteria/ Award of certification:**

Participants who secured 75 % attendance shall be awarded the completion certificate.

  
(Mrs. Anchal Praveen)

Course Coordinator

  
(Dr. L.S. Awasthi)

Dean Academics

  
(Dr. Anil Singh)

Principal

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Yamuna Road, Goranbagh, Lucknow





## LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES

### THEORY OF BASIC PHOTOGRAPHY AND VIDEOGRAPHY

**Duration (40 Hours)**

**Course Specific outcomes:** The art department offers a broad scope of opportunities for pursuing art while attaining a liberal arts education. From traditional fine art subjects, such as painting and photography, to artisanal craft-based media, such as ceramics, metal, and glass; to digital technology such as 3D modeling and printing; and to community-based genres, such as eco art and social sculpture, students are sure to find an area that suits their expressive style. Rigorous study of art history across culture and time offers opportunities to consider multiple perspectives as well as providing a firm grounding for the understanding that cultural context is a shaping force for all human activity.

#### **Unit I – (10hours)**

History of Photography: early experiments and later developments, Films cameras & Processing, Cameras old and new, Different parts of a camera, Lenses: wide, zoom, tele, macro, fish-eye, Aperture: Functions, Shutters: Functions, ISO, Exposure.

#### **Unit II – (10 hours)**

Photographic light sources, natural and artificial, Composition, rules of composition, Flash, Digital Imaging, Sensors, Light-room, Photoshop, Photo Correction. Wildlife, fashion, and photo-journalism, Photographing in available light.

#### **Unit III – 10 hours**

Brief history and how it differs from cinematography, Basics of video cameras - their operations and application, Basic rules of framing - rule of third, point of view shots, over the shoulder.

#### **Unit IV – 10 hours**

Lecture on composition, Rule of thirds, Screen direction, The nose rule, framing – light elements – tripod use – wireless Mic - Lecture on capturing audio in the field.

**Assessment Criteria/ Award of certification:**

Participants who secured 75 % attendance shall be awarded the completion certificate.

  
(Mr. Neeraj Singh)

Course Coordinator

  
(Dr. L.S. Awasthi)

Dean Academics

  
(Dr. Anil Singh)

Principal  
Lucknow Public College of Professional Studies  
Lucknow, India





## LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES

### YOGA & MEDITATION

Duration (40 Hours)

Course Specific Outcome: Following are the main objectives of this course.

- To enable the student to have good health.
- To practice mental hygiene
- To possess emotional stability
- To integrate moral values.
- To attain higher level of conscious.
- To make a stability between body and soul.

#### Unit-I (10 hours)

Yoga Etymology, definition, Aim, objective and misconception text, Yoga origin, history and development, Rules and regulations to be followed by yoga practitioners, Introduction to Major schools of Yoga (Janan, Yoga Bhakti, Yoga Karma, Patanjali, Hatha), Introduction to yogic practices (Sukshama Vyayama, Surya Namaskar and Asanas)

#### Unit-II (10 hours)

Introduction and study of Patanjali Yoga Sutra Introduction and study of Bhagavad Gita, Introduction of Hata Pradpika, Introduction and study of Gheranda Samhita.

#### Unit-III (10 hours)

Brief introduction to human body, Role of yoga for health promotion, Yogic attitudes and practices, Holistic approach of yoga towards the health and diseases, Introduction to yoga diet and its relevance and importance in yoga Sadhana, Dincharya and Ritucharya with respect of yogic Lifestyle

#### Unit-IV (10 hours)

Practice of various Asanas like (NadiShudhi, Sukshma vyayama, Surya Namaskar, Halasana, Pawanmuktasana, Bhujangasana, Shalabhasana, Gomukhasana, Vakrasana, Ustrasana, Mandukasana, Sasankasana, Janusirasana, Virkshasana, Padhastasana, Dhyana Mudra, Meditation)

Assessment Criteria/ Award of certification:

Participants who secured 75 % attendance shall be awarded the completion certificate.

(Dr. LS Awasthi)

Course Coordinator

(Dr. LS Awasthi)

Dean Academics

(Dr. Anil Singh)

Lucknow Public College of Professional Studies  
Principal  
Vindhyapuri Road, Ganga Nagar, Lucknow





## LUCKNOW PUBLIC COLLEGE OF PROFESSIONAL STUDIES

### MARTIAL ARTS

Duration (40 Hours)

**Course Specific outcomes:** To teach the student the basics of punching, kicking, blocking, and movement stressing the application of the basics in regards to self-defence, while applying the five virtues of Shoalin Martial Arts: effort, etiquette, character, sincerity, and self-control.

#### Unit-I (10 hours)

Introduction to martial art .Difference between martial and non-martial sports. Forms of martial arts —wushu,taekwondo,kick boxing, kalaripayattu etc. (mixed martial arts), principles and theories of martial art.

#### Unit-II (10 hours)

Introduction to defence and attacking styles of martial arts, Basic stances and bowing, theoretical approaches to of punching, kicking, blocking, and movement stressing the application of the basics in regards to self-defence.

#### Unit-III (10 hours)

Introduction to various defensive attacks like Hammer strike, Groin kick, Heel palm strike, Elbow strike, Alternative elbow strikes, Escape from a 'bear hug' attack' Escape with hands trapped, Escape from side headlock.

#### Unit-IV (10 hours)

Practice of Chest Punch, Face Punch and Downward Punch Face Punch & Below Punch on Kibadachi Stance, Forward Stance + Front Kick (Chest Level & Face Level), Front Kick on Bag, Stepping, Blocks- Upper Block, Outer Block, Downward Block, Inner Block with practical application of all the blocks, Basic combination, Sparring techniques.

(Mr. Manoj Gupta)

Course Coordinator

(Dr. L.S Awasthi)

Dean Academics

(Dr. Anil Singh)

Lucknow Public College of Professional Studies  
Principal  
Lucknow, India