

**CSAOEUG(D) - PYTHON PROGRAMMING****CREDIT 3 : LTP (2:0:1)****Course Objectives**

- Demystify programming, enjoy python scripting
- Discover python lexical features and syntax
- Learn core python structures and flow control
- Create and run python functions
- Practice with python execution environment
- Explore the python library
- Implement data structures using python
- Explore object-oriented programming
- Understand handling of errors and exceptions
- Explore test and debug python best practices

**UNIT - I**

Planning the Computer Program: Concept of problem solving, Problem definition, Program design, Debugging, Types of errors in programming, Documentation.

Techniques of Problem Solving: Flowcharting, decision table, algorithms, Structured programming concepts, Programming methodologies viz. top-down and bottom-up programming.

Overview of Programming: Structure of a Python Program, Elements of Python

**UNIT - II**

Introduction to Python: Python Interpreter, Using Python as calculator, Python shell, Indentation. Atoms, Identifiers and keywords, Literals, Strings, Operators (Arithmetic operator, Relational operator, Logical or Boolean operator, Assignment, Operator, Ternary operator, Bit wise operator, Increment or Decrement operator)

Creating Python Programs :Input and Output Statements, Control statements(Branching, Looping, Conditional Statement, Exit function, Difference between break, continue and pass.), Defining Functions, default arguments, Errors and Exceptions.

Iteration and Recursion: Conditional execution, Alternative execution, Nested conditionals, The return statement,

**UNIT - III**

Recursion, Stack diagrams for recursive functions, Multiple assignment, The while statement, Tables, Two-dimensional tables

Strings and Lists: String as a compound data type, Length, Traversal and the for loop, String slices, String comparison, A find function,

#### UNIT - IV

Looping and counting, List values, Accessing elements, List length, List membership, Lists and for loops, List operations, List deletion. Cloning lists, Nested lists

Object Oriented Programming: Introduction to Classes, Objects and Methods, Standard Libraries.

#### UNIT - V

Data Structures: Arrays, list, set, stacks and queues.

Searching and Sorting: Linear and Binary Search, Bubble, Selection and Insertion sorting.

#### References :

1.T. Budd, Exploring Python, TMH, 1st Ed, 2011

2.How to think like a computer scientist : learning with Python / Allen Downey, Jeffrey Elkner, Chris Meyers. 1st Edition – Freely available online.

1. <http://docs.python.org/3/tutorial/index.html>
2. <http://interactivepython.org/courselib/static/pythonds>

#### Practical:

1. Using for loop, print a table of Celsius/Fahrenheit equivalences. Let c be the Celsius temperatures ranging from 0 to 100, for each value of c, print the corresponding Fahrenheit temperature.
2. Using while loop, produce a table of sines, cosines and tangents. Make a variable x in range from 0 to 10 in steps of 0.2. For each value of x, print the value of sin(x), cos(x) and tan(x).
3. Write a program that reads an integer value and prints “leap year” or “not a leap year”.
4. Write a program that takes a positive integer n and then produces n lines of output shown as follows. For example enter a size: 5
 

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5. Write a function that takes an integer ‘n’ as input and calculates the value of  $1 + 1/1! + 1/2! + 1/3! + \dots + 1/n$
6. Write a function that takes an integer input and calculates the factorial of that number.
7. Write a function that takes a string input and checks if it’s a palindrome or not.
8. Write a list function to convert a string into a list, as in list (‘abc’) gives [a, b, c].
9. Write a program to generate Fibonacci series.
10. Write a program to check whether the input number is even or odd.

11. Write a program to compare three numbers and print the largest one.
12. Write a program to print factors of a given number.
13. Write a method to calculate GCD of two numbers.
14. Write a program to create Stack Class and implement all its methods. (Use Lists).
15. Write a program to create Queue Class and implement all its methods. (Use Lists)
16. Write a program to implement linear and binary search on lists.
17. Write a program to sort a list using insertion sort and bubble sort and selection sort.

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**CSAOEUG(J) - SOFTWARE ENGINEERING**  
**CREDIT 3 : LTP (2:1:0)**

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**Course Objectives**

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The purpose of this course is to make the students capable of conceiving and developing complete software projects. It objects at software modeling, project planning, design as well as improving the quality and usage of software.

**UNIT - I**

Software : Software Characteristics and Applications, Software Engineering - A Layered Technology, Software Process Models - Linear Sequential Model, Prototype & RAD Model, Incremental Model and Spiral Model. Project Metrics : Software Measurement-Size Oriented, Function Oriented Metrics, Extended Function Point Metrics.

**UNIT - II**

Software Project Planning: Objectives, Decomposition Techniques, and Empirical Estimation Models. Analysis Concept and Principles: Requirement Analysis, Analysis Principles.

**UNIT - III**

Design Concepts and Principles: Design Process, Design Concepts, Design Principles, Effective Modular Design, Human Computer Interface Design, Interface Design Guidelines.

**UNIT - IV**

S/W Quality Assurance: Quality Concepts, Reliability S/W Testing Models: S/W Testing Fundamentals, White and Black Box Testing, Basic Path Testing, Testing Strategies: Strategic Approach to S/W Testing, Unit Testing, Integration Testing, Validation Testing, System Testing.

**UNIT - V**

S/W Reuse: Reuse Process, Classification and Retrieving Components. Economics of S/W Reuse

Software maintenance- Need for Software maintenance, Maintenance models.

Software Configuration Management (SCM) – Version Control – SCM process – Software Configuration Items

Computer Aided Software Engineering (CASE): Introduction to CASE, Taxonomy of CASE Tools

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**Expected Outcomes**

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At the end of this course, a student will have detailed knowledge of aspects of software engineering, for better and documented development of software projects in an efficient manner.

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*TEXT & REFERENCE BOOKS :*

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- Software Engineering By R.S.Pressman
- An Integrated Approach To Software Engineering By PankajJalote

DE-3 - 4442

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## GENDER STUDIES

1 Gender Concepts		L	T	S	W	D	V	P	T
1.1 Sex & Gender, Social construction of Gender, Gender Socialization		3	-	-	-	-	-	-	3
1.2 Gender discrimination, gender stereotyping, Gender Roles		3	-	-	-	-	-	1	4
1.3 Structures of gender Inequality. (Patterns of Gender inequality in terms of caste, class and religion patterns of violence against women, Female Infanticide,		3	-	-	-	-	-	-	3
1.4 Child marriage: Dowry, Widowhood, Domestic violence, and single women		3	-	-	-	-	-	2	5
1.5 Understanding Demographic indicators related to gender (global comparison) (Sex Ratio, Literacy, Life Expectancy, Maternal Mortality Rate, Infant Mortality Rate, Work Participation Rate)		3	-	-	-	-	-	1	4

2 Social Reproduction of Patriarchy and Control over		L	T	S	W	D	V	P	T
2.1 Good woman vs. Bad woman: Complying traditions, maintaining family honor; Politics of Procreation & Glorification of Motherhood		3	-	-	-	-	-	-	3
2.2 Gendered work and work spaces, Invisibility of Female work, Unpaid labor, issues of ownership/access to resources		3	-	-	-	-	-	1	4
2.3 Reproduction of Patriarchy and Sexuality in Agricultural, Industrial and Post-industrial Society		3	-	-	-	-	-	-	3
2.4 Unequal burdens of morality & ethics, Notions of chastity, seclusion, segregation		3	-	-	-	-	-	2	5
2.5 Reinforcing Patriarchy through legitimizing force (of the state) and violence on women, controlling sexuality		3	-	-	-	-	-	1	4

  
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3 Types of Feminism										
	L	T	S	W	D	V	P	T		
3.1 Liberal Feminism - Individual Freedom										
3.2 Socialist Feminism: Value of Housework and Reproduction Privileging Class and Capitalism Capitalist Patriarchy From Androgyny to Gynocentric Politics of Difference	3	-	-	-	-	-	-	-	3	
3.3 Radical Feminism Sisterhood and Sexual Oppression Radical Rejection of Patriarchy Feminism of Difference Politics of the Private Sphere Control over and Celebration of Sexually Specific Body/Biology	3	-	-	-	-	-	-	1	4	
3.4 Post-Structural/Post-Modern Feminism Rejection of Grand Narrative and Essentialism Constitution of Meaning through Difference	3	-	-	-	-	-	-	-	3	
3.5 Deconstruction Death of the Subject Queer Theory	3	-	-	-	-	-	-	2	5	

4 Women and law										
	L	T	S	W	D	V	P	T		
4.1 Understanding Law : Legal Concepts ,Law and Feminism.	3	-	-	-	-	-	-	-	3	
4.2 Source of Law : Primary sources ,Religion, Custom and Conventions, Socio-Political Philosophy and Law	3	-	-	-	-	-	-	1	4	
4.3 , Secondary Sources , The Constitution, Statutes and Judicial Decisions	3	-	-	-	-	-	-	-	3	
4.4 Women Rights as Human Rights : U.N. World Conference on Women, Universal Declaration of Human Rights , Convention on the Elimination of all forms of Discrimination against Women , Declaration on the Elimination of Violence against Women	3	-	-	-	-	-	-	2	5	

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4.5 Law Relating to Crimes against Women :Indian Penal Code - 1860 , Dowry Prohibition Act, 1961, Indecent Representation of Women [Prohibition]Act, 1986	3	-	-	-	-	-	-	-	-	1	4
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5 Gender and Mass Media	L	T	S	W	D	V	P	T
5.1 Impact of globalization on media images of women	3	-	-	-	-	-	-	3
5.2 Women discourse in media	3	-	-	-	-	-	1	4
5.3 News coverage and reports on News Paper, television .Column's	3	-	-	-	-	-	-	3
5.4 Impact of sex and violence related matter of media on women	3	-	-	-	-	-	2	5
5.5 Protection of Women from Domestic Violence Act, 2005	3	-	-	-	-	-	1	4

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OE4 - 4343  
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## OE Paper 09 : Television Production (3 Credits)

### Unit-1 : TV Production Process

1. TV as a medium of Communication, Types & Programs
2. Television Production : Meaning and scope
3. Video Production Process : Pre Production, Production, Post Production

### Unit-2 : Production Team

1. Production Personnel and their duties and responsibilities
2. Key persons in Technical team
3. Production team, Management team

### Unit-3 : TV Script


1. Script Writing – Characteristics of a good script
2. Story Board – Types of TV script
3. Writing Voice Over

### Unit-4 : Camera and Lighting

1. Components of Video Camera
2. Basic shots and their Composition
3. Lighting equipments and control

### Unit-5 : Video Editing

1. Editing – concept and significance
2. Grammar and aesthetics of Editing
3. Editing equipment, introduction to Non Linear Editing

  
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OE5-4823

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**BBA - E-COMMERCE**  
**OE-4: Retail Management**

<b>Unit -1</b>	<b>Introduction to Retail</b>
1.1	Introduction to Retail
1.2	Retail in India
1.3	Retail Models and Theories
1.4	Understanding the Retail Consumers
1.5	Ethical Issues in Retailing

<b>Unit -2</b>	<b>Retail Marketing Strategy</b>
2.1	Retail Marketing Strategy
2.2	Retail Franchising
2.3	Retail Store Location
2.4	Site Selection
2.5	Retail Store Design

<b>Unit -3</b>	<b>Retail Merchandising</b>
3.1	Basics of Retail Merchandising
3.2	Process of Retail Merchandising
3.3	Method of Merchandising Procurement
3.4	Retail Pricing
3.5	Evaluating Merchandising

<b>Unit -4</b>	<b>Store Operations</b>
4.1	Retail Store Operations
4.2	Servicing The Retail Consumer
4.3	Retail Human Resource Management
4.4	Financial Aspect of Retail Management
4.5	Supply Chain Management in Retailing

<b>Unit -5</b>	<b>Communication Mix in Retail</b>
5.1	Retail Communication Mix
5.2	Retail Information System
5.3	Consumer Relationship Management in Retailing
5.4	Case Study

  
विज्ञान एवं ए-कॉमर्स विभाग  
भाजनल चतुर्वेदी राष्ट्रीय पत्रकारिता एवं संचार  
विश्वविद्यालय, नेपाल

DEG - 4759

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## Computer Applications in Printing & Packaging

Course	Marking Scheme			Credits
	T	P	I	
BTech(PP)6	40	-	10	3 (OE4)

**Objective: Elementary knowledge of basic printing & Pre press reproduction technology, colour technology.**

### Unit I: Personal Computers

Labelling standards: Software applications, utilities, operating systems. Linking hardware and software, device interfaces, BIOS, device drivers. Memory- Introduction, types, Cache memory, Magnetic tape, optical disk, CCD, MBM (Magnetic Bubble Memory), Types of Printers (3D printers), Types of Scanning- 3D Scanning.

### Unit II: Colour Terminology and Relationship

Hue, Value, Chroma, Brightness, Shades, Tint, Dimension of Color, Color Wheel, Color Symbolism, Cool, Warm, Color Schemes, Emotional effects of Color.

### Unit III: DTP

Use and importance of computers in printing- Introduction to DTP, DTP in printing technology, Software and Hardware requirements Introduction of different DTP software, Photoshop Introduction, Exploring Photoshop Interface, Screen modes, Creating New Documents, Working with workspace, managing Palettes, Customizing preferences Color mode Working with Layers

### Unit IV: Quark Express

Introduction, Use of Quark Express in News paper and Magazines, Specifying document setting, Creating and Opening Publications, Use of Palates and Controls, Positioning, Resizing, Inserting and placing text and picture, Box and line manipulations, Choosing a measurement, Adjusting Layout, Creating Columns, Grouping and Locking subject, Wrapping text around pictures and graphics, Using Libraries.

### Unit V: Cost estimation of DTP

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Digital image (BMP, TIF and GIF) file formats. Image compression & its types, Usage of Computers-Application of computer in printing and publishing Pre Press-DTP Packages, CTF,CTP,CTM ,S/W applications, file format, Press - CPC, Post -Press-Quality Control , Management-cost estimation, production planning, job sheet, procurement.

**Assignments/Practical Work:**

1. Use of different Hardware devices.
2. Study of DTP and its features, Software's used in printing & Packaging.
3. Page set-up with different sizes and margins.
4. Practice of image Capturing Devices ( scanners)
5. Image and Text merging.
6. Modifications and Editing of illustrations and Text.

**Text & Reference books:**

1. Hardware Bible - Winn L Rosch Techmedia, ISBN-10: 8176356964, 2003
2. Desk Top Typography with QuarkXPress, Frank J. Romano, TAB Books Inc, ISBN-10: 0830630570, 1992
3. DTP by Vikas Gupta Published -Dreamtech Press New Delhi, ISBN-10: 8177229273, 2010
4. Handbook of Print media: Technologies and production methods -Helmut Kipphan, Springer, ISBN-10: 3540673261, 2001
5. A Guide to graphic print production - Kaj Johansson,Wiley Publications, ISBN-10: 0471761389, 2007
6. Adobe Photoshop CS6 Bible, Lisa Danae Dayley, Wiley, ISBN-10: 8126536209, 2012

OE7 - 4230/4271

4230/427

Course	Subject	Marks			Credit
		T	P	I	
B.Sc.(MM)5	Social Media	40	-	10	3 (OE6)

**OBJECTIVES:**

- To learn about basics of social media.
- To learn about social networking

**Unit 1: Development of Social Media**

Introduction to New Media and Social Media, Types of Media (Print Electronic, Traditional and New Media), Traditional Media versus New Media, New Media as a communication tool, Pros & Cons of Social Media Types of New Media- Blog, micro-blogging, Forums, Internet Messaging, Social Bookmarking, Photo Sharing (Instagram, Picasa, Flickr), Video & Document Sharing (Slideshare, DocStoc, Scribd etc.) etc.

**Unit 2: Social Networking and Smartphone Revolution**

History of Social Media, Commonly used terms in Social Media, Networks and Social Networks: Information Society, Network Society, Social Networking sites MySpace, Facebook, Twitter, LinkedIn, Friendster, Mobile Communication introduction to cellphones, smartphones and tablets, Mobile media Technology and Apps, Photography on the web, Flickr, Video for the web, content repository- YouTube.

**Unit 3: Social Collaboration & Cyberspace**

Online Community & Virtual reality: Social media for Community Development, Public Sphere in the Internet Era Collaboration: Collaborative Media- Wikipedia, Wikihow, Ask.com, Britannica etc. Cyberspace: The concept & Definitions, Crowd sourcing: Getting things done online, collective action and sharing, Crowdfunding, Crowdsourcing Media Convergence

**Unit 4: Social Media for Business, P.R. & Marketing**

E- Governance, E- Banking, E-Wallet  
Mobile Phone for cashless economy  
Online Shopping- Amazon, Flipkart, E-bay etc.  
Social Media advertising & PR campaigns,  
Maintaining Online Communities,  
Social Media Start Ups

**Unit 5: Net Neutrality & Cyber Law**

User Genrated Content: ethics and credibility, Open Source, Free content and data

Net Neutrality: TRAI rules, freedom and limitations,  
Introduction to Cyber Laws: Copyright & Privacy issues, Defamation  
Information Technology act- Law related to social media, Hacktivism, Ethical hacking, morphing, cyber bullying,  
Cyber Crimes & Security: Types and case studies

**Text Books and References**

1. The Art of Social Media: Guy Kawasaki
2. The New Rules of Marketing and PR: David Scott
3. Media Law and Ethics: M. Neelamalar
4. New Media: A Critical Introduction: Martin Lister and Jon Dovey
5. Convergence: The Deepest Idea in the Universe: Peter Watson
6. सोशल मीडिया: सम्पर्क क्रांति का कल आज और कल : स्वर्ण सुमन

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