Computing Lab II

Programme(s) in which it is offered: BA Sanskrit

Course Category: Proficiency	**Schedule of Offering**: Even
Course Credit Structure: 3	**Course Code:LL146**
Total Number of Hours: 60	**Contact Hours Per Week:4**
Lecture: 2	**Tutorial:** 0
Practical: 2	**Medium of Instruction: English**
Date of Revision:	**Skill Focus:** Soft Skills
Short Name of the Course: CLII	**Course Stream** *(Only for Minor Courses)*:
Grading Method: Regular	**Repeatable:** Credit
Course Level: Intermediate	

Course Description
This course is offered as a proficiency course for BA Sanskrit students. In this course the students will get the knowledge of the document processing software LaTeX along with HTML and CSS.

Course Introduction

This course is designed to provide hands-on experience of computing tools for document processing such as LaTeX and basic knowledge of HTML(HyperText Markup Language) and CSS(Cascading Style Sheets) for creating the Websites. In LaTeX, the student would learn the concepts like preparing documents and presentations, Text Formatting, Tabular environment and preparing presentations and bibliography, etc. In HTML, the student will learn the concepts such as the basic structure of HTML documents, Markup tags, Lists, Insertion of Hyperlinks and Multimedia etc. In the case of CSS, the student will learn to create style sheets, color, and border properties.

Course Objective
The main objectives of this course are to:
- Prepare high-quality documents using LaTeX
- Prepare presentations using Beamer
- Create documents using online editors such as Overleaf
- Develop a website using HTML and CSS

Course Outcome
Students will -

1. be able to write articles in different journal styles.

2. get adequate skills to draw graphs and insert figures in LaTeX
3. be able to prepare presentations using beamer package
4. be competent enough to describe the function of Hypertext Markup Language (HTML) in Web communications.
5. able to identify the function of Cascading Style Sheets (CSS) in Web communications and describe the relationship between CSS and HTML.

PO-CO Mapping

PO-CO Mapping Matrix

CO/PO Mapping	PO1	PO2	PO3	PO4	PO5	PO6
CO1				✓	✓	✓
CO2				✓	✓	✓
CO3				✓	✓	✓
CO4				✓	✓	✓
CO5				✓	✓	✓

Prerequisites and other constraints

Before taking this course, the student should have passed the following courses:

● Computing for Business and Society
● Computing Lab 1

Pedagogy

This course will run in practice mode, where the focus will be on hands-on experience of some computing tools. There will be assignments supporting the learning and a group project to solve some real-life problems.

Suggested Reading:
1. Grätzer, George. Practical LaTeX, Springer International Publishing, Switzerland, 2014
2. Van Dongen, Marc. LaTeX and Friends, Springer Science & Business Media, 2012.
3. Stefan, Kottwitz. LaTeX Beginner's Guide, Packt Publishing Ltd, 2011.
4. Jon Duckett, HTML and CSS:Design and Build Websites, John Wiley & Sons, Inc., Indianapolis, Indiana, 2011.

Evaluation Pattern

Evaluation Matrix

	Component Type	Weightage Percentage	Total Marks	Tentative Dates	Course Outcome Mapping
Continuous Internal Assessment	Mid term Lab	20	50	As Per University	1,2,3

(CIA) Components*				Schedule	
	Record	40	50	After the completion of each module	1,2,3,4,5
	CIA Marks	60	100		
ESE (End Semester Lab)		40	100	As per University Schedule	1,2,3,4,5

Module Sessions

Module 1:   **Introduction to Latex**   **(12 hours)**

1. Basics, Document Hierarchy, Labels and cross-referencing
2. Text Formatting, Fonts, Colors, Special Characters, Adding Pictures, Footnotes, Bibliography.
3. Creating Tables: Tabular environment, Specing, Spanning, Size

Reading:
- Grätzer, George. Practical LaTeX, Springer International Publishing, Switzerland, 2014
- Van Dongen, Marc. LaTeX and Friends, Springer Science & Business Media, 2012.
- Stefan, Kottwitz. LaTeX Beginner's Guide, Packt Publishing Ltd, 2011.

Module 2:   **Presentations Using Latex**   **(10 hours)**

- Beamer
- Overleaf(online editor)

Reading:
- Grätzer, George. Practical LaTeX, Springer International Publishing, Switzerland, 2014
- Van Dongen, Marc. LaTeX and Friends, Springer Science & Business Media, 2012.
- Stefan, Kottwitz. LaTeX Beginner's Guide, Packt Publishing Ltd, 2011.

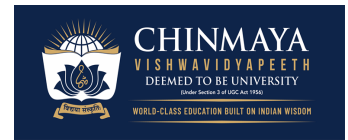**Module 3:**   **Introduction to HTML**   **(10 hours)**

- What is HTML ?
- Basic structure of an HTML document
- Creating an HTML document
- Mark up Tags

Reading:
- Jon Duckett, HTML and CSS:Design and Build Websites, John Wiley & Sons, Inc., Indianapolis, Indiana, 2011.

Module 4:   **Introduction to elements of HTML**   **(13 hours)**

- Lists, Tables and Frames
- Hyperlinks, Images and Multimedia
- Forms and controls

Reading:
- Jon Duckett, HTML and CSS:Design and Build Websites, John Wiley & Sons, Inc., Indianapolis, Indiana, 2011.

Module 5:   Introduction to Cascading Style Sheets   (15 hours)

- Concept of CSS
- Creating Style Sheet
- CSS Properties
- CSS Styling(Background, Text Format, Controlling Fonts)
- Lists and Tables
- CSS Id and Class

Reading:
- Jon Duckett, HTML and CSS:Design and Build Websites, John Wiley & Sons, Inc., Indianapolis, Indiana, 2011.