25SS804 **Digital Humanities** **4 0 0 4**

Course Description -

This course introduces students to the interdisciplinary field of Digital Humanities (DH), where digital tools and methods intersect with humanities research. Students will gain practical skills in text analysis, data modeling, digital archiving, network visualization, geospatial mapping, and digital publishing, while critically engaging with the theoretical underpinnings of DH. Through hands-on exercises and project-based learning, students will learn to conduct digital scholarship and contribute to the evolving landscape of the humanities.

CO Nos.	Course Outcomes
CO1	Examine the foundational principles, methodologies, and applications of Digital Humanities, and evaluate their impact on humanities research and scholarship.
CO2	Use appropriate tools and techniques for data modeling, cleaning, and visualization to transform humanities data into meaningful digital representations.
CO3	Develop and manage digital projects involving digitization, metadata, markup standards, and web presentation to address real-world issues in the humanities.
CO4	Critically assess the use of spatial data (GIS) and network analysis in humanities research to interpret complex systems and cultural phenomena.
CO5	Create user interfaces for digital projects while considering ethical issues related to data use, intellectual property, and the responsible dissemination of digital content.

Course Objectives:

1. **Develop Data Models and Visualizations (Apply)**: Students will be able to create effective data models and visualizations using digital tools, applying learned techniques to present humanities data in visually meaningful ways.
2. **Critique Digital Tools and Techniques (Analyze)**: Students will demonstrate the ability to critically evaluate the suitability and limitations of different digital tools and methodologies in various humanities research scenarios.
3. **Create Digitization and Metadata Projects (Create)**: Students will design and implement projects that involve the digitization of primary sources, the creation of metadata, and the application of markup standards for web publication.
4. **Interpret Spatial and Networked Data (Evaluate)**: Students will interpret and assess spatial (GIS) and networked data within digital humanities projects, using these insights to draw conclusions about cultural and historical contexts.
5. **Integrate Ethical Considerations into Project Design (Create)**: Students will integrate ethical principles and considerations into the design and development of digital humanities projects, ensuring responsible data use and content sharing.

Syllabus-

Unit 1: Foundations of Digital Humanities

Introduction to Digital Humanities - Topics: Overview of DH, history, and evolution; tools like Zotero and Scalar.
Principles and Scenarios for DH - Topics: Core principles, applications; tools like Voyant Tools and Omeka.
Data Modeling and Use - Topics: Data creation, structuring, cleaning methods; tools like OpenRefine, Palladio, and Python.
Digital Documents - Topics: Understanding formats, digitization methods, and file standards; tools like Adobe Acrobat, ABBYY FineReader, and Tesseract.

Unit 2: Metadata, Markup, and Database Management
Metadata and Classification - Topics: Types of metadata and standards; tools like Dublin Core and Oxygen XML Editor.
Markup Standards - Topics: XML, TEI, KML, JSON; tools like Oxygen XML Editor and GeoJSON.
Database Fundamentals - Topics: Database design, ethical issues, and legacy data challenges; tools like MySQL, MongoDB, and Python (SQLAlchemy).
Data Visualization and Network Analysis - Topics: Visualization principles, network analysis; tools like Tableau, Gephi, and Cytoscape.

Unit 3: Advanced Applications and Project Management
Data and Cultural Analytics - Topics: Text mining, cultural and multimedia analysis; tools like NLTK, MALLET, and OpenCV.
Mapping and 3D Modeling - Topics: GIS, spatial analysis, 3D modeling, and photogrammetry; tools like QGIS, Blender, and Agisoft Metashape.
Interface and Web Design - Topics: Interface design, web presentation, data sharing; tools like Figma, WordPress, and GitHub.
Project Design and Legal Considerations - Topics: Project management, intellectual property issues; tools like Trello, Creative Commons, and Slack.

References-

1. Johanna Drucker, *Digital Humanities Coursebook*.
2. Johanna Drucker, *Introduction to Digital Humanities: Concepts, Methods, and Tools for the Humanities*.
3. Matthew K. Gold and Lauren F. Klein (eds.), *Debates in the Digital Humanities*.
4. Anne Burdick et al., *Digital_Humanities*.

Evaluation pattern-

Exam	Marks	Weightage	
Mid Term	50	20	Internal
Assignment	30	30	
End Semester	100	50	External