COMPUTER DEPARTMENT
TIME PLAN
Four Year B.sc Semester II (Under CCF, 2022)

Teacher: Ms. Chandrani Sengupta
Initials: CSG
Subject: DEIM
Course: SEC – 2
Course Title: Digital Empowerment

Course Objectives:
- Understand the fundamentals of digital technologies and their impact on society.
- Enhance online communication and collaboration skills.
- Promote digital citizenship and responsible online behavior.
- Gain awareness of digital security risks and implement best practices.
- Explore ethical considerations in the use of digital technologies.

**2nd Semester Topic-wise Time
Plan- SEC-2**

Unit	Topics	Hours Allotted	Teaching Method	Learning Outcome (Output)	Assessment
Unit 1: **Digital Literacy and Digital Empowerment**	•Definition of Digital Literacy •Current Trends of Digital Technology •Evaluating the credibility of online information •Copyright and Plagiarism awareness •Important application of our country DigiLocker, E-Hospitals, e-Pathshala, SHIM, e-Kranti (Electronic Delivery of Services}, e-Health Campaigns	6	Lecture, Discussion, Case Studies	•Understanding the concept of Digital Literacy and its current trends. •Ability to assess the credibility of online sources. •Understanding copyright and ethical considerations in digital media. •Ability to analyze and synthesize information from various digital sources. •Empowering individuals to engage in digital applications	Class Discussion Group Presentation, Comparative Analysis, Tutorial Assessment

Unit 2: **Online Communication and Collaboration**	• Electronic Communication: electronic mail, blogs, social media • Collaborative Digital platforms • Tools/platforms for online learning • Collaboration using file sharing, messaging, video conferencing	6	Lecture, Practical Exercises, Discussion	• Proficiency in using digital tools and platforms for collaboration • Skills in networking and building connections for future collaboration • Understanding effective digital communication • Learning Skills in using visual aids effectively to enhance communication	Class Discussion Group Presentation, Comparative Analysis, Tutorial Assessment
Unit 3: **Digital Security**	• Online security and privacy • Threats in the digital world: Data breach and Cyber Attacks • Blockchain Technology • Security Initiatives by the Govt. of India	6	Lecture, Practical Exercises, Discussion	• Analysing the digital threats and their issues • Understanding the concept of Blockchain Technology • Knowledge of the various initiatives by the Government.	Class Discussion Group Presentation, Comparative Analysis, Tutorial Assessment
Unit 4: **Digital Citizenship and Ethics**	• Responsible online behavior and digital etiquette • Understanding online communities and their norm • Ethical considerations in digital technology usage	6	Lecture, Practical Exercises, Discussion	• Recognition of responsibilities towards others in digital spaces. • Ability to communicate effectively and respectfully in online environments • Understanding diverse perspectives and cultures in the digital world	Class Discussion Group Presentation, Comparative Analysis, Tutorial Assessment
Unit 5: **Emerging Technology**	• Exploring emerging technology and it's impact • AI and Machine Learning • IOT and Connected Devices	6	Lecture, Practical Exercises, Discussion	• Knowledge of key emerging technologies • Ability to explain how these technologies work and their potential applications. • Encouragement of innovative thinking and creative approaches to technology-related challenges • Understanding the ethical considerations related to the use of emerging technologies	Class Discussion Group Presentation, Comparative Analysis, Tutorial Assessment

Teacher: Ms. Chinmoyee Ray
Initials: CR
Subject: ARTI
Course: SEC – 2
Course Title: AI for Everyone

Course Objectives:
- Understand the basics of artificial intelligence and its subfields.
- Explore real-world applications of AI across different industries.
- Gain insights into the ethical, social, and economic implications of AI.
- Develop an appreciation for the potential of AI to drive innovation and transformation.

2nd Semester Topic-wise Time

Unit	Topics	Hours Allotted	Teaching Method	Learning Outcome (Output)	Assessment
Unit 1: Introduction to Artificial Intelligence	Definition and scope of AI	2	Lecture, Discussion	Understanding the basics of AI and its scope	Quiz, Class Discussion
	Historical overview and key milestones	2	Lecture, Case Studies	Knowledge of AI's evolution and key milestones	Short Essay, Timeline Exercise
	Differentiating AI from human intelligence	2	Lecture, Group Activity	Ability to distinguish AI capabilities from human intelligence	Group Presentation, Comparative Analysis
Unit 2: AI Subfields and Technologies	Machine learning: Supervised, unsupervised, and reinforcement learning	3	Lecture, Practical Exercises	Understanding different ML techniques and their applications	Practical Assignment, Quiz
	Deep learning and neural networks	3	Lecture, Hands-on Lab	Knowledge of deep learning architectures and applications	Lab Report, Quiz
	Natural language processing (NLP) and computer vision	3	Lecture, Practical Exercises	Understanding NLP and computer vision concepts and applications	Practical Assignment, Quiz
Unit 3: Applications of AI	AI in healthcare: Diagnosis, treatment, and medical imaging	2	Case Studies, Guest Lecture	Understanding AI applications in healthcare	Case Study Analysis, Quiz
	AI in finance:	2	Case Studies,	Knowledge of AI	Case Study

	Fraud detection, algorithmic trading, and risk assessment		Lecture	applications in finance	Analysis, Quiz
	AI in transportation: Autonomous vehicles and traffic optimization	2	Case Studies, Lecture	Understanding AI applications in transportation	Case Study Analysis, Quiz
	AI in customer service and chatbots	1	Practical Exercises, Lecture	Knowledge of AI applications in customer service	Practical Assignment, Quiz
	AI in education: Personalized learning and intelligent tutoring systems	1	Case Studies, Lecture	Understanding AI's role in education and personalized learning	Case Study Analysis, Quiz
Unit 4: Ethical and Social Implications of AI	Bias and fairness in AI systems	1	Lecture, Discussion	Understanding the ethical concerns related to bias in AI	Essay, Discussion
	Privacy and data protection concerns	1	Lecture, Case Studies	Knowledge of privacy and data protection issues in AI	Case Study Analysis, Quiz
	Impact of AI on employment and the workforce	1	Lecture, Discussion	Understanding the impact of AI on jobs and the workforce	Essay, Discussion
	AI and social inequality	1	Lecture, Discussion	Knowledge of AI's impact on social inequality	Essay, Discussion
Unit 5: Other Important Issues	Ethical guidelines and responsible AI practices	1	Lecture, Case Studies	Understanding ethical practices in AI development	Case Study Analysis, Quiz
	AI and Innovation	1	Lecture, Discussion	Knowledge of how AI drives innovation	Essay, Discussion
	Emerging trends and future directions in AI	1	Lecture, Discussion	Awareness of emerging trends and future directions in AI	Essay, Quiz
	AI and creativity: Generative models and artistic applications	1	Lecture, Practical Exercises	Understanding AI's role in creativity and artistic applications	Practical Assignment, Quiz