Skill Enhancement Course (SEC)

Semester: I

Course Content

Course Title: Digital Fluency	**Course Credits**: 2
Formative Assessment Marks: 50 marks	**Summative Assessment Marks**: 50 marks

Total Contact Hours: 15 hours of theory and 30 hours of pra1cticals.

Note: **B.Sc., (Computer Science) & BCA Students have to opt other Discipline SEC subjects**

Course Outcomes (COs):

At the end of the course the student should be able to:

1. Have an intelligent conversation on the key concepts and applications of Artificial Intelligence (AI), Big Data Analytics (BDA), Internet of Things (IoT), Cloud Computing, and Cyber Security.

2. Develop holistically by learning essential skills such as effective communication, problem-solving, design thinking, and teamwork.

3. Build his/her personal brand as an agile and expansive learner – one who is interested in horizontal and vertical growth.

Course Content (Digital 101)

	Details of topic	Duration
Module 1: Emerging Technologies	Overview of Emerging Technologies: i. Artificial Intelligence, Machine Learning, Deep Learning, ii. Database Management for Data Science, Big Data Analytics, iii. Internet of Things (IoT) and Industrial Internet of Things (IIoT) iv. Cloud computing and its service models v. Cyber Security and Types of cyber attack	05 hours
Module 2: Applications of Emerging Technologies	Applications of emerging technologies: i. Artificial Intelligence ii. Big Data Analytics iii. Internet of Things iv. Cloud Computing v. Cyber Security	05 hours

Module 3: Building Essential Skills Beyond Technology	Importance of the following:
	  i. Effective Communication Skills
	  ii. Creative Problem Solving & Critical Thinking
	  iii. Collaboration and Teamwork Skills
	  iv. Innovation & Design Thinking
	  v. Use of tools in enhancing skills
		05 hours

References to learning resources:

1. The learning resources made available for the course titled "Digital 101" on Future Skills Prime Platform of NASSCOM

Pedagogy

Flipped classroom pedagogy is recommended for the delivery of this course.

For every class:

1. Before coming to the class students are expected to go through the content (both video and other resources) on the related topic and give the quiz on Future Skills Prime Platform of NASSCOM.

2. Class room activities are designed around the topic of the session towards developing better understanding, clearing mis-conceptions and discussions of higher order thinking skills like application, analysis, evaluation and design.

3. Every theory class ends with announcement of exercise for practical activity of the week

Assessment

Formative Assessment	
Assessment Occasion	**Weightage in Marks**
1. After watching videos of each topic, 05 marks tests are to be given by the students on Future Skills Prime Platform. The total marks earned by students is to be computed.	No weightage
2. **Practical Sessions**: A total of 05 activities from Module 1 and Module 2 and 03 activities from Module 03 need be completed by students. All the activities are expected to be done in teams of 02-03 students per team. Each session performance is assessed for 10 marks against announced rubrics for assessment. The total marks earned by students is to be computed.	50%
3. **Summative Assessment**: After completion of all 3 modules students will be giving Final Assessment with 30 questions (30 min) on Future Skills Prime platform. Students will have two attempts and those who score at least 50% marks will get certificate from **NASSCOM-AICTE**.	This assessment may be given 50% weight in computing the final grade of the students.