

Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly West Bengal University of Technology)
Syllabus for B. Tech in CSE(Artificial Intelligence and Machine Learning)
(Applicable from the academic session 2020-2021)

Software Engineering
Code:OEC-AIML 801C
Contact: 3L

Name of the Course:	Software Engineering		
Course Code: OEC-AIML 801C	Semester: VIII		
Duration:6 months	Maximum Marks:100		
Teaching Scheme		Examination Scheme	
Theory:3 hrs./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam:70 Marks		
Credit Points:	3		

Unit	Content	Hrs/Unit	Marks/Unit
1	Overview of System Analysis & Design , Business System Concept, System Development Life Cycle, Waterfall Model , Spiral Model, Feasibility Analysis, Technical Feasibility, Cost- Benefit Analysis, COCOMO model. [10L]	10	
2	System Design – Context diagram and DFD, Problem Partitioning, Top-Down And Bottom-Up design; Decision tree, decision table and structured English; Functional vs. Object- Oriented approach. [5L]	5	
3	Coding & Documentation – Structured Programming, OO Programming, Information Hiding, Reuse, System Documentation. [4L]	12	
	Testing – Levels of Testing, Integration Testing, Test case Specification, Reliability Assessment, Validation & Verification Metrics, Monitoring & Control. [8L]		
4.	Software Project Management – Project Scheduling, Staffing, Software Configuration Management, Quality Assurance, Project Monitoring. [7L]	7	
5	Static and dynamic models, why modeling, UML diagrams: Class diagram, interaction diagram: collaboration diagram, sequence diagram, state chart diagram, activity diagram, implementation diagram. [10 L]	10	

Text book and Reference books:

1. Pressman, Software Engineering : A practitioner’s approach– (TMH)
2. Pankaj Jalote, Software Engineering- (Wiley-India)
3. N.S. Gill, Software Engineering – (Khanna Publishing House)
4. Rajib Mall, Software Engineering- (PHI)
5. Agarwal and Agarwal, Software Engineering – (PHI)
6. Sommerville, Software Engineering – Pearson
7. Martin L. Shooman, Software Engineering – TMH

Human Resource Development and Organizational Behavior

Code: OEC-AIML 802 A

Contact: 3L

Name of the Course:	Human Resource Development and Organizational Behavior
Course Code: OEC-AIML 802 A	Semester: VIII
Duration:6 months	Maximum Marks:100
Teaching Scheme	Examination Scheme
Theory:3 hrs./week	Mid Semester exam: 15
Tutorial: NIL	Assignment and Quiz: 10 marks
	Attendance: 5 marks
Practical: NIL	End Semester Exam:70 Marks
Credit Points:	3

Unit	Content	Hrs/Unit	Marks/Unit
1	Organizational Behaviour: Definition, Importance, Historical Background, Fundamental Concepts of OB, Challenges and Opportunities for OB. [2] Personality and Attitudes: Meaning of personality, Personality Determinants and Traits, Development of Personality, Types of Attitudes, Job Satisfaction.	4	
2	Perception: Definition, Nature and Importance, Factors influencing Perception, Perceptual Selectivity, Link between Perception and Decision Making. [2] 4. Motivation: Definition, Theories of Motivation - Maslow’s Hierarchy of Needs Theory, McGregor’s Theory X & Y, Herzberg’s Motivation-Hygiene Theory, Alderfer’s ERG Theory, McClelland’s Theory of Needs, Vroom’s Expectancy Theory.	8	
3	Group Behaviour: Characteristics of Group, Types of Groups, Stages of Group Development, Group Decision	4	