Lesson Plan of Independent Study Seminar (ME-410E)

Name of Faculty : Ashok Kumar Garg
Branch : Mechanical Engineering
Semester : 8th (Even)
Subject : Independent Study Seminar (ME-410E)
Lesson Plan Duration : 15 weeks (from January, 2018 to May, 2018)
Work Load (Practical) per week : 04 Lecture per Group (Group I & II)

Week	Activity Detail
1st	Introduction to Subject - Seminar: Importance/Requirement/Usefulness.
2nd	Requirement of Presentation and Communications Skills in Profession.
3rd	Historical Background of Presentation, Method of Literature Review & Topic Selection Ways.
4th	Power Point Presentation Methods &Use of Available Study Material.
5th	Display of List of Topics as per Fields (Thermal, Design, Production Industrial) available. Distribution of Seminar Topic among Students.
6th	Presentation of First Four Students: Seminar Delivery, Question Answer Session, Knowledge Sharing, Consolidation, Report Submission.
7th	Presentation of Next Four Students: Seminar Delivery, Question Answer Session, Knowledge Sharing, Consolidation, Report Submission.
8th	Presentation of Next Four Students: Seminar Delivery, Question Answer Session, Knowledge Sharing, Consolidation, Report Submission.
9th	Presentation of Next Four Students: Seminar Delivery, Question Answer Session, Knowledge Sharing, Consolidation, Report Submission.
10th	Presentation of Next Four Students: Seminar Delivery, Question Answer Session, Knowledge Sharing, Consolidation, Report Submission.
11th	Presentation of Next Four Students: Seminar Delivery, Question Answer Session, Knowledge Sharing, Consolidation, Report Submission.
12th	Presentation of Next Four Students: Seminar Delivery, Question Answer Session, Knowledge Sharing, Consolidation, Report Submission.
13th	Presentation of Next Four Students: Seminar Delivery, Question Answer Session, Knowledge Sharing, Consolidation, Report Submission.
14th	Presentation of Remaining Students if any: Seminar Delivery, Question Answer Session, Knowledge Sharing, Consolidation, Report Submission.
15th	Final Discussion by the Faculty and replies to queries of students, Rating of Seminar, Distribution of marks etc.

Lesson Plan of General Fitness for the Profession (ME-412E)

Name of Faculty : Ashok Kumar Garg
Branch : Mechanical Engineering
Semester : 8th (Even)
Subject : General Fitness for the Profession (ME-412E)
Lesson Plan Duration : 15 weeks (from January, 2018 to May, 2018)
Work Load (Practical) per week : 02 Lecture per Group (Group I & II)

Week	Activity Detail
1st	Introduction to Subject - General Fitness for the Profession: Importance/Requirement/Usefulness.
2nd	Historical Background of General Fitness for the Profession: Skills in Profession.
3rd	Tips for Improvements of Professional Skills, Ethics in Profession.
4th	Present Scenario of Fitness for Profession, Entrepreneurship, Start ups.
5th	SWOT Analysis: Strength, Weakness, Opportunities, Threat in Profession.
6th	Understanding of the University designed Performa of General Fitness for the Profession, Distribution of Performa among students.
7th	Filing of Specified Performa by students. Relevant record submission by students.
8th	Performa analysis in the light of submitted documents of students, Evaluation & Judgements by the Faculty.
9th	Performa analysis in the light of submitted documents of students, Evaluation & Judgements by the Faculty.
10th	Performa analysis in the light of submitted documents of students, Evaluation & Judgements by the Faculty.
11th	Motivational Lecture by Faculty, Improvement Methods in the Shortcomings found among students. Membership of Professional Societies.
12th	Use of Professional Studies in Skill Development, Present needs of Mechanical Industry.
13th	Importance of Academic Performance, Extra Curricular activities, Hostel Management activities, Social Welfare, achievement in the Institution.
14th	Benefits of Blood donation towards self health, Society and nation.
15th	Final Discussion by the Faculty and replies to queries of students, Grades to various students and other related activities.

Lesson Plan of Industrial Engineering (ME-312E)

Name of the Faculty : Ashok Kumar Garg
Branch : Mechanical Engineering
Semester : 6th (Even)
Subject : Industrial Engineering Theory (ME-312E)
Lesson Plan Duration : 15 weeks (from January, 2018 to May, 2018)
Work Load (Lecture) per week : 04 Lecture per Class

Week	Lecture	Activity Detail
1st	1st	Definition of Industrial Engineering: Objectives, Work Study, Method study.
	2nd	Principle of motion economy, Techniques of method study -Various charts
	3rd	THERBLIGS & Detail of all THERBLIGS
	4th	Work measurement - various methods
2nd	5th	Time Study PMTS, determining time
	6th	Work sampling/Plans
	7th	Productivity & Workforce Management: Productivity - Definition,
	8th	Various methods of measurement of Productivity
3rd	9th	Factors effecting productivity, Strategies for improving productivity
	10th	Various methods of Job evaluation & merit rating
	11th	Various Incentive payment schemes
	12th	Numerical Problems on Incentive Schemes
4th	13th	Behavioural aspects, Financial Incentives. ASSIGNMENT 1st from Covered Topics.
	14th	Manufacturing Cost Analysis**:** Fixed & variable costs, Direct, indirect Material Cost
	15th	Manufacturing Cost Analysis**:** Direct /indirect Overhead costs, Job costing
	16th	Numerical Problems on Cost Estimation & Analysis.
5th	17th	Recovery of overheads, Standard costing, Cost control, Cost variance
	18th	Analysis - Labour, material, overhead in volume, rate & efficiency
	19th	Break even Analysis, Marginal costing & contribution, Manufacturing Cost Analysis Formulae Briefing.
	20th	Numerical Problems on Break even Analysis & other related topics.

6th	21st	Materials Management: Strategic importance of materials in manufacturing industries, Relevant costs,
	22nd	Inventory control models - Economic order quantity (EOQ), Economic batch quantity (EBQ) and other IC Models
	23rd	Purchase discounts, Sensitivity analysis, Inventory control systems - P,Q,Ss Systems,
	24th	Numerical Problems on Cost Estimation & Analysis
7th	25th	Numerical Problems on Inventory control models & methods
	26th	Usefulness of Inventory Control in the Stock Maintenance Work
	27th	Service level, Stock out risk, determination of order point & safety stock
	28th	Selective inventory control - ABC, FSN, SDE, VED and three dimensional
8th	29th	Quality Management: Definition of quality, Various approaches, Concept of quality assurance systems
	30th	Costs of quality, Statistical quality Control (SQC), Variables & Attributes,
	31st	X, R, P & C - Charts, other remaining control charts.
	32nd	Acceptance sampling, OC - curve, Concept of AOQL
9th	33rd	Sampling plan - Single, Double & sequential,
	34th	Introduction to TQM & ISO – 9000, ASSIGNMENT 2nd from Covered Topics.
	35th	Production Planning & Control (PPC) : Introduction to Forecasting - Simple & Weighted moving average methods,
	36th	Numerical Problems on above topics & other related topics.
10th	37th	Objectives & variables of PPC, Aggregate planning - Basic Concept, its relations with other decision areas
	38th	Decision options - Basic & mixed strategies, Master production schedule (MPS), scheduling Operations
	39th	Various methods for line & intermittent production systems, Gantt chart, Sequencing.
	40th	Introduction: Johnson Algorithm, Algorithm for n-Jobs-2 machines.
11th	41st	Algorithm n- Jobs-3 machines, 2 Jobs n-machines, n-Jobs m machines. Various means of measuring effectiveness of PPC.
	42nd	Introduction to JIT, ASSIGNMENT 3rd from Covered Topics.
	43rd	Test
	44th	Practice of Numerical & Algorithms.

12th	45th	Management Information Systems (MIS): What is MIS? Importance of MIS.
	46th	Organizational &information system structure, Role of MIS in decision making
	47th	Data flow diagram. Other Queries of Students.
	48th	Introduction to systems analysis & design.
13th	49th	Organizing information systems.
	50th	Product Design and Development: Introduction, Various Approaches.
	51st	Product Design and Development: Product life cycle.
	52nd	Role 3S's – Standardization, Simplification, Specialization
14th	53rd	Introduction to value engineering and analysis
	54th	Role of Ergonomics in Product Design. ASSIGNMENT 4th from Covered Topics.
	55th	MCQ Test/Mock Test
	56th	Doubts/Revision of the First & Second Unit
15th	57th	Doubts /Revision of the Third & Fourth Unit
	58th	Doubts /Revision of the Fifth & Sixth Unit
	59th	Doubts /Revision of the Seventh & Eighth Unit
	60th	Mercy Test/Viva/Mock Test