

TEng2142: YARN MANUFACTURING PRACTICAL I

Department of Textile Engineering Wollo University				
Course Number	TEng2142			
Course Title	Yarn Manufacturing Practical I			
Degree Program	B. Sc. in Textile Engineering			
Module	14: Spinning Technology			
Module Coordinator	N.N.			
Lecturer	N.N.			
ECTS Credits	4			
Contact Hours (per week)	Lecture	Tutorial	Laboratory or Practice	Home study
	0	0	6	0
Course Objectives & Competences to be acquired	To understand in practical terms, the aspects those learnt in Yarn Manufacturing I theory course from blow room to combers: To understand the practical aspects of opening, cleaning, mixing and blending of fibers To understand the working principles of drafting practically To understand the combing process operation techniques			
Course Description/ Course Contents	Practical study in blow room: Passage of material through blow room Calculation of speed and settings of beaters and fans Gearing diagram of machines in blow room Production calculations in blow room Cleaning efficiency of blow room Practical study on card: Passage of material through carding Calculation of speed Card setting			

Calculation of draft, draft constant, Production
Quality control studies in carding
Practical study on draw frame:
 Passage of material through draw frame with line diagram
 Calculation of calendar roller speed, coiler speed and can
 speeds with the gearing diagram
 Calculation of speed of drafting roller with the gearing diagram
 Calculation of draft and draft constant
 Wrapping practices
Production calculations
Demonstration of setting of rollers and change of draft
gears.
Practical study on comber:
 Passage of material through a combing machine
 Study of the various parts of the combers
 Calculation of production rates
 Study on combing efficiency and noil extraction
 Demonstration of setting of combing machine parts and
 the tools used for setting the cards

Pre-requisites	None	
Semester	2 nd Semester, 2 year	
Status of Course	Compulsory	
Teaching & Learning Methods	Explanation of the basic principles in each of the practical work followed by demonstration; actual practical work to be carried out by the students under close supervision of the instructor(s)	
Assessment/ Evaluation &Grading System	Lab Records:	30 %
	Written Lab Examination:	40 %
	Demonstration / Defense:	30 %
	Total	100 %

Attendance Requirements	100% attendance during lab/practical class sessions
Literature	1. Klein W., <i>Manual of Textile Technology</i> - The Technology of Short-staple Spinning, The Textile Institute, UK, 1998. 2. Klein W., <i>Manual of Textile Technology</i> - A Practical Guide to Opening and Carding, The Textile Institute, UK, 1998 3. Klein W., <i>Manual of Textile Technology</i> - Man-made Fibres and their Processing, The Textile Institute, UK, 1994 4. Klein W., <i>Manual of Textile Technology</i> - A Practical Guide on Drawing and Combing, The Textile Institute, UK, 1998