



Syrian Arab Republic
Damascus University
Faculty of Mechanical and Electrical Engineering
Mechanical Engineering of Textile Industries and
Their Technology Department

الجمهورية العربية السورية
جامعة دمشق
كلية الهندسة الميكانيكية والكهربائية
قسم هندسة ميكانيك الصناعات النسيجية وتقاناتها

Master Degree (Spinning Technology) in Mechanical Engineering

<i>First Year</i>			
<i>Subject</i>	<i>Weekly hours</i>		<i>Semester</i>
	<i>Th</i>	<i>Pr</i>	
<i>Applied Statistics</i>	<i>3</i>	<i>1</i>	<i>1</i>
Deals with: -Descriptive statistics and inference statistics: Measure of Central Tendency(mean, median, mod, measure of dispersion Sample and sampling distribution: sample type, sampling distribution, calculation of sample size. -Statistical inference for samples with large size: Statistical estimation and its type, statistical tests (test of hypothesis). -Statistical inference for samples with small size: T distribution, its properties and uses, statistical test for means. -Chi_ Square tests, Variance analysis and Fisher distribution: uses of fisher distribution, analysis of variance (ANOVA), and one way ANOVA Model and two ways ANOVA Model. -Regression and correlation coefficient significance tests Using SPSS program in statically analysis of data Complementary topics.			
<i>Advanced Control</i>	<i>3</i>	<i>1</i>	<i>1</i>
Deals with: - Distributed Control Systems: (Types of DCS, Specifications of DCS, Components of DCS) - Applications of Distance Temperature Measurements.			



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<ul style="list-style-type: none"> - Simulation of Work of air compressors L-Series. - PID Control Systems. - Radar Level Sensor. - Pressure measurement Sensor. - Thermocouples. 			
<i>Computer Applications in the Spinning Industry</i>	<i>3</i>	<i>1</i>	<i>1</i>
Manner of using the computer and its application of textile manufacturing, providing certain example of automatization of certain product operation and spinning machinery development.			
<i>Spinning Technology</i>	<i>3</i>	<i>1</i>	<i>1</i>
Deals with the important of textile fibers in textile industrial; their structure and obtainment way as well as their physical; mechanical, and mechanical properties and field of usage, various technical operations required for obtaining a final spinning product starting with fibers.			
<i>Scientific Research</i>	<i>2</i>	<i>2</i>	<i>1</i>
Link scientific research with university objectives and national development plans, transfer of modern technology and participation in its development, creating an information base for ongoing and future researches, organize the communication between research centers outside the university(domestic and foreign)and develop the cooperation between it, the development of a young researcher and encourage them to do more modern researchers, encourage the dissemination of their researches in magazines or via local and international conferences.			



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<i>Yarn Structure Technology (Cotton, Wool, and Synthetic)</i>	<i>3</i>	<i>1</i>	<i>2</i>
Structure of fiber(natural , synthetic) starting with polymer structure that constitute such as fiber s, a study of form, set out and arrangement of polymer series inside the fiber, interrelation of such structure to fiber properties. Relation of fiber chemical structure to fiber surface properties. Linkage way of large practical series of fiber. Some chemical processes conduct of fiber so as bring about certain properties.			
<i>Mechanics of Spinning Machinery</i>	<i>3</i>	<i>1</i>	<i>2</i>
Gaining knowledge about various mechanism used in spinning machines, introduction of various production lines and development made to production operation and their effect of product quality, as well as how to work on computation operation required for production throughout various spinning stage.			
<i>Production Management and The Feasibility Study and Marketing (Spinning)</i>	<i>3</i>	<i>1</i>	<i>2</i>
About natural and particularity of spinning industry compare to other field of textile industries, how to manage production in spinning companies, step for production pricing and affecting factors, how to make feasibility study for spinning enterprises, product marketing, hazard and opportunity of available in spinning market, problems and challenge on marketing Syrian textile product.			