

GIN SCHOOL
COURSE DESCRIPTION

LEVEL I

INTRODUCTION TO COTTON GINNING AND GINNING DEMONSTRATION - This course describes and illustrates the functions of each gin machine and its influence on fiber quality, including the effects of fiber moisture. Reviews ginning sequence, process rates, speeds, efficient operation, pollution equipment, classing, etc. This also includes demonstration of these concepts at the gin lab, fiber quality traits and practical approach to gin operation.

BASIC GIN SAFETY Safety training is critically important for all employees in the gin, from management to press operator. This course covers all aspects of gin safety, from basic safety rules, management emphasis on safety training and enforcement, developing a written Safety Program, Gin Hazard Identification, using and maintaining Personal Protective Equipment, conducting a Safety Inspection, Basic Machine Guarding, Accident Reporting and documentation. In some cases, commercial gins are toured and analyzed for hazards with corrective measures prescribed.

BASIC HYDRAULICS This course will provide an improved understanding of the basic principles of hydraulic operation, a review of hydraulic uses in the gin, system components and function, basic repair and maintenance procedures, a thorough review of safety rules, a description of press operation.

AIR UTILIZATION – This course includes airflow basics, fan types, air flow resistance, general gin air volumes and velocities and basic air measurement techniques. Hands-on instruction is provided on making measurements of static and velocity pressures in piping.

ELECTRICITY IN THE GIN – This course will provide the student with an improved understanding of single and three-phase power, electrical wire sizes, maintenance of electric motors, volt/ohm/amp readings, understanding motor protectors, switches and relays, solenoid valves, electrical safety, and most importantly, when to ask for help from a qualified electrician.

MAINTENANCE AND ADJUSTMENTS FOR SEED COTTON CLEANERS, GIN STANDS, AND LINT CLEANERS – This course covers maintenance and adjustments for seed cotton cleaners, gin stands and lint cleaners. Students are instructed on how to develop a Good Maintenance Program and the importance of Contamination Prevention during ginning. Demonstrations are provided on Lint Cleaner Adjustments.

MAINTENANCE OF AUXILIARY GIN COMPONENTS - How to service and repair gin equipment such as fans, belts, bearings, chains, sprockets, gears, press pumps, filters, air compressors, augers, module movers, etc., how to determine when repairs are needed, daily and weekly maintenance requirements, and troubleshooting. Basic hydraulics and maintenance will also be covered.

CLASSING COTTON – an overview of the AMS cotton classing locations and requirements and procedures are discussed. Terms and methods for measuring length, strength, color, micronaire, leaf and other parameters are covered. Demonstrations on pulling staple and making color and leaf calls are demonstrated.

MOISTURE MEASUREMENT - Includes approaches to dryer control, moisture measurement, use of moisture and temperature sensors, and moisture in modules and trailers.

UNDERSTANDING THE COTTON INDUSTRY - Includes historical development of the ginning industry, trends in cotton processing from planting through fabric production, descriptions of bale transportation and textile processes, etc.

WASTE COLLECTION AND DISPOSAL - Includes detailed guidance on maintenance of cyclones, condensers, and a brief review of methods of disposal such as composting, incinerating, and spreading on the soil.