



## CERTIFICATE COURSES IN SUGARCANE AGRICULTURE

The South African Sugarcane Research Institute (SASRI) provides training in sugarcane agriculture. Two certificate courses are on offer – a three week Junior Certificate Course and a more extensive five week Senior Certificate Course. Both courses are conducted in English at the SASRI offices in Mt Edgecombe, Durban.

### COURSE ATTENDANCE

The Junior Course is aimed at junior farm managers, agriculture students and farm clerks while the Senior Course is attended by more experienced farm managers, farm owners, agriculture students and sugarcane researchers.

Approximately 50 learners are accepted for each course, which are held either once or twice a year, depending on demand.

Students come from South Africa as well as many sugar-producing countries in southern Africa, including Malawi, Mozambique, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

### ENTRY REQUIREMENTS

The minimum entry requirement for the **Junior Certificate Course** is Std 10 (Grade 12). Students who wish to enrol for the course and who have passed Std 8 (Grade 10) may be allowed access, following an assessment and interview. Since the course is delivered in English and all assessment is carried out in English, students must be able to read and write English.

The minimum entry requirement for the **Senior Certificate Course** is some tertiary education. Students who wish to enroll for the course and who have passed Std 10 (Grade 12) may be allowed access, following an assessment and interview. A student who has a matric (Grade 12) and has passed the Junior Certificate course with a Merit Pass (65% and above) will be entitled to enroll for the Senior Certificate course.

### COURSE STRUCTURE

Both certificate courses comprise both lectures and practicals. These are presented by specialists, most of whom are SASRI Researchers and Extension Specialists. Guest lectures covering a variety of topics of special interest are also given.

Students are assessed on the knowledge acquired through two hour tests. Certificates are awarded in three classes namely Honours (80% and above), Merit (65 – 79%) and Pass (50–64%). Students who fail more than three subjects will fail the course.

### COURSE CONTENT

**Senior Certificate Course subject areas:**

MODULE	SUBJECTS	MODULE	SUBJECTS	
Environmental management	Sugarcane growing and the environment	Diseases and Pests	Sugarcane diseases	
	Environmental awareness		Insect pests	
	Environmental management theory		Principles of pest control	
	Sustainable sugarcane farm management system (SuSFarMS)		Seedcane production	
Soils	Formation and development	Weed control	Nematodes and their control	
	Soil health		Biology and control	
	Classification and identification			Herbicides and their application
	Soil physics			
	Soil and water salinity and sodicity			
	Soil nutrients in sugarcane production			
Fertilizers				
Varieties	Management of Soils	Mechanization	Principles	
	History		Tractor performance and power transmission	
	Breeding		Costing and planning	
	Botany: structure, propagation and physiology of cane plants		Application of chemicals (incl calibration)	
	Agronomic characteristics		Harvesting	Chemical ripening of sugarcane
Identification of varieties	Cane quality			
Choice of varieties	Cane payments			
Husbandry	Land preparation	Estimating and manual cutting		
	Planting	Management		Farm management
	Ratoon management		Financial management	
Field drainage				
Land use planning	Soil Conservation			
	Pegging & construction of structures			
	Drafting and Land Use Plan			
Irrigation	Principles			
	Systems			
	Control			
	Design			



**Junior Certificate Course subject areas:**

MODULE	SUBJECTS
Botany	
Varieties	Agronomics
	Breeding
	Identification
	Choice
Land Preparation	Planting
	Ratoon management
	Drainage
Pests and Diseases	
Weed control	
Soils and Nutrition	
Harvesting	Cane quality
	Cane estimates
	Harvesting management
Irrigation	
Mechanization	Calibration of equipment
Farm Planning	
Environmental Management	
Farm Management	

### COURSE FEES AND APPLICATION PROCEDURES

Course fees, application procedures and closing dates are indicated on separate application forms. These can be obtained from the course coordinator, Mr Raj Balbador at [educane@sugar.org.za](mailto:educane@sugar.org.za)

or

SASRI Knowledge Manager, Mrs Michelle Binedell  
[michelle.binedell@sugar.org.za](mailto:michelle.binedell@sugar.org.za)