



Agricultural Research Council, Onderstepoort Veterinary Research (ARC-OVR) 2020

The ARC-Onderstepoort Veterinary Research Campus (ARC-OVR), has long tradition of veterinary research since its founding in 1908 by Sir Arnold Theiler. It is nationally and internationally recognized as a veterinary centre of excellence. The ARC-OVR is a flagship institution of the Agricultural Research Council and plays an important role in maintaining the health of South Africa's national herd and wildlife.

The mission of ARC-OVR is to provide scientific support for Veterinary Services in effective risk management for quality of life for all in South Africa. The ARC-OVR strives to deliver world-class veterinary research in providing scientific support. Research activities focus on the development and improvement of vaccines and diagnostic tests, applying the latest molecular biological techniques.

OVR promotes animal health and welfare by providing an effective and efficient diagnostic service and producing vaccines against Foot and mouth and tick-borne diseases.

The ARC-OVR is the collaborating centre for both the World Animal Health Organisation (Office International des Epizooties (OIE)) surveillance and control of animal diseases in Africa and the Food and Agriculture Organisation (FAO) of the United Nations for the emergency preparedness for transboundary animal diseases for Africa.

ARC-OVR also hosts seven OIE reference laboratories for economically important viral diseases namely: African horse sickness, bluetongue, Foot and mouth disease, lumpy skin disease, Rift valley fever, rabies and African swine fever. We provide a wide range of applied research and consultancy, diagnosis and surveillance on livestock diseases to the National and Provincial Government and commercial customers.

ARC-OVR maintains a high standard of quality in all aspects of our operation and we continuously aim to satisfy our customers in all services we deliver as outlined in Quality Policy Statement.

Our staff performs laboratory procedures in accordance with the best scientific principles. We are committed to implement the most appropriate international standard in all areas of our work. The laboratories are accredited by the South African National Accreditation System (SANAS).

<http://www.arc.agric.za/arc-ovi/Pages/Molecular-epidemiology--diagnostics-.aspx>

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ARC-OVR Training Courses Brochure 2020

The ARC-OVR is dedicated to providing unparalleled, personalized education, training, and management solutions to assist the wide spectrum of the veterinary and associated profession. Whether it is live in the classroom, laboratory, or on-site; animal health professionals and related stakeholders are kept up-to-date on product information and key trends in veterinary disease diagnostics and their management.

The ARC-OVR recognizes that effective training is essential to helping our clients achieve their goals. We offer high quality and proven effective training programmes to our clients at several training centres within the Institute as well as in the field.

The ARC-OVR Training Unit offers training programmes and courses that support three major streams including:

- Smallholder and emerging farmers (Farmers Days and Farmer Field Training activities)
- Veterinarians, Animal Health Technicians and associated stakeholders (Professional Trainings)
- Students Mentoring and Supervision (Interns, MSc, Doctoral and Post-Doctoral candidates)

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Our Vision	Excellence in Research & Innovation for Sustainable Agricultural Systems and Socio-economic Development
Our Mission	To Conduct Research, Develop Partnership & Human Capital, and Foster Innovation for a Sustainable Agricultural Sector
Our Impact	Sustainable Agricultural Systems for Agrarian Transformation, Food and Nutrition Security
Our Training Outcomes	A Skilled and Capable Agricultural Sector

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Course Name	Tick Identification and Tick-borne Diseases of Veterinary Importance
Course Level	1
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	Tick-borne diseases include anaplasma, redwater, heartwater, biliary, ehrlichia, East coast fever and others. They cause severe morbidity and mortality, having profound effects both in beef production (decreases live weight gain) and milk production systems (decreased yields). This course cover all aspects of ticks of veterinary importance, their epidemiology, management strategies and their control.
Course Duration	2 weeks
Number of Participants per course	25
Delivery Mode	Theoretical and practical sessions
Books/Manuals	Included
Language Mode	English
Who Should Attend	Veterinarians, veterinary technicians, animal health specialists, animal production specialists and related professions
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Basic Training in animal production and husbandry, animal disease control or associated veterinary experience, minimum of 2 years work experience
Special Requirements	South African Veterinarians and Animal health technicians must be South African Veterinary Council (SAVC) registered

Course Name	Tick Identification ¹
Course Level	4
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za , +27 (0)12 529-9154
Course Outline and Description	To enable participants in identifying economical important tick species. Introductory lecture on the general biology and life cycles of ticks (<i>Ixodidae</i> and <i>Argasidae</i>) Morphology of the ticks PowerPoint presentation and practical with stereo microscope General identification of the economical important tick genera (6 genera) Identification of selected species according to the student's requirements
Course Duration	1 day
Number of Participants per course	Variable
Delivery Mode	PowerPoint presentation; practical using stereo microscope and specifies tick species
Books/Manuals	Included
Language Mode	English
Who Should Attend	Veterinarians, veterinary researchers, agricultural students, veterinary technologists, and veterinary nurses. Laboratory workers with relatively good background and interested in acarology; researchers and technologist in acarology.
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Grade 12 Biology minimum
Special Requirements	South African Veterinarians and Animal health technicians must be South African Veterinary Council (SAVC) registered

¹ Specialised tick general species courses are also available

Course Name	Veterinary Diagnostics
Course Level	1 , 2, 3
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	This Training programs focus on helping key operators understand diagnostic technology and methods as well as gain valuable hands-on experience in the operations and supporting functions for our instrument platforms. These courses provide laboratory staff with an opportunity to explore topics from laboratory best practices, to compliance requirements, to disease management. We aim to keep professional staff up-to-date on product information and key trends in veterinary disease diagnostics and their management
Course Duration	2 weeks
Number of Participants per course	25
Delivery Mode	Theoretical and practical sessions
Books/Manuals	Included
Language Mode	English
Who Should Attend	Laboratory managers, veterinarians, veterinary technicians, and laboratory technicians
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Novice courses: Junior technicians with at least 1 year experience in a laboratory Intermediate courses: Laboratory technicians with at least 4 years' experience. Advanced courses: Senior laboratory technicians with at least 3 years' experience in a veterinary diagnostic laboratory.
Special Requirements	NA

Course Name	Cold Chain Management
Course Level	2
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	This training is intended to assist all animal health care workers with how to properly store and handle provincially/state funded vaccines. Contained in the training course are the following: <ul style="list-style-type: none"> • Basic science of heat transfer • Proper vaccine storage temperatures and handling • Temperature monitoring tools including Vaccine Vial Monitoring, Multi Dose Vial Policy, Vaccine Forecasting and stock management, • Monitoring Vaccine wastage, • Preventing freezing, • Estimating vaccine volume and cold chain capacity, • Knowing the types of cold chain equipment • Contingency planning.
Course Duration	3 days
Number of Participants per course	25
Delivery Mode	Theoretical and practical sessions
Books/Manuals	Included
Language Mode	English
Who Should Attend	Animal health technicians and similar professions
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Basic Training in animal production and husbandry, animals' disease control or associated veterinary experience. .
Special Requirements	NA

Course Name	Biosafety and Biosecurity in the Laboratory
Course Level	1
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	The “Biosafety and Biosecurity in the Laboratory” Training program focuses on helping your key operators understand the basic principles of Biorisk Management, Risk Assessment, Laboratory Biosecurity, Primary Containment and Laboratory Design. This course is key to for veterinary regulatory authorities and practitioners especially in terms of disease control and public health.
Course Duration	5 days
Number of Participants per course	Variable
Delivery Mode	Theoretical and practical sessions
Books/Manuals	Included
Language Mode	English
Who Should Attend	Laboratory technicians and laboratory associated personnel’s
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Senior laboratory technicians with at least 3 years’ experience in a veterinary diagnostic laboratory.
Special Requirements	NA

Course Name	Transboundary Animal Diseases
Course Level	1
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	The training aims to provide participants with the principles of veterinary epidemiology, particularly as applied to foot-and-mouth disease, avian Influenza, Rift Valley fever and <i>peste des petits ruminants</i> . The participants will be led through the development of basic epidemiological skills, and learn to apply appropriate epidemiological tools in animal disease surveillance/survey systems in order to conduct valid risk analyses. This is done with an emphasis placed on analysis and interpretation of field data, diagnostic test results, and the use of economic principles in animal health management.
Course Duration	5 days
Number of Participants per course	Variable
Delivery Mode	Theoretical (Lecture course)
Books/Manuals	Included
Language Mode	English
Who Should Attend	Veterinarians
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	A minimum first degree in veterinary sciences
Special Requirements	South African Veterinarians and Animal health technicians must be South African Veterinary Council (SAVC) registered

Course Name	Diagnosis of Avian Influenza
Course Level	1
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	The course is meant to support efforts aimed at surveillance of avian influenza and related diseases of poultry. The course includes: <ul style="list-style-type: none"> • Virus classification and distribution • Clinical signs and pathology • Epidemiology of avian influenza • Principles of HI, HA and ELISA • Quality assurance and Proficiency test schemes • Shipment of infectious samples • International reporting obligations • Use of PCR in the detection of avian influenza
Course Duration	12 days
Number of Participants per course	Variable
Delivery Mode	Practical (perfecting laboratory procedures)
Books/Manuals	Included; Laboratory Manuals
Language Mode	English
Who Should Attend	Veterinarians, laboratory manager, laboratory technicians and veterinary technicians
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Basic Agricultural Sciences Degree, Diploma in agriculture or other sciences or relevant 5 years' experience
Special Requirements	NA

Course Name	Introduction to Bovine Spongiform Encephalopathy (BSE)
Course Level	2,3
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	Background to BSE and the need to test large numbers of samples Demonstration of tacking a sample at an abattoir Demonstration of tacking a high risk sample Preventive methods for cross infections
Course Duration	3 days
Number of Participants per course	Variable
Delivery Mode	Presentations and demonstrations
Books/Manuals	Included; BSE Manual and Lectures Notes as part of the course package
Language Mode	English
Learning Outcomes	Participants will gain an appreciation of what BSE is and what needs to be done to address threats posed by the disease effectively Field veterinary staff will be in a better position to send more samples for testing
Who Should Attend	General public, farmers and veterinary staff
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Animal health worker, livestock farmer, extension officers, abattoir operators
Special Requirements	NA

Course Name	Zoonotic Diseases
Course Level	4
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	This course aims to alert emerging farmers on diseases they could catch from their livestock Highlight on diseases of livestock that pose a health risk to people Disease management and basic hygiene Vaccination and health management practices Feeding of healthy livestock
Course Duration	5 days
Number of Participants per course	Variable
Delivery Mode	Presentations
Books/Manuals	Included; Zoonotic diseases resource book
Language Mode	English, Sepedi, Afrikaans
Learning Outcomes	Gain a significant understanding of health risks posed to people by livestock To be equipped with steps to mitigate health risks
Who Should Attend	General public and emerging farmers
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Basic literacy if possible
Special Requirements	NA

Course Name	An Introductory Course in Geographic Information Systems (GIS) and Geographic Positioning Systems (GPS)
Course Level	2
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	This course is specifically designed to accentuate the applicability of these techniques in epidemiological studies. Emphasis is placed on the importance of visualizing geographic distribution of data as a simple but powerful method to detect epidemiological patterns.
Course Duration	3 days
Number of Participants per course	Variable
Delivery Mode	Theoretical and practical learning, field spatial data collection, computer based training, ARC/GIS software training, and GIS online library training.
Books/Manuals	Included
Language Mode	English
Who Should Attend	Junior researchers and laboratory researchers
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Basic Training in animal production and husbandry, animal disease control or associated veterinary experience, minimum of 2 years work experience.
Special Requirements	NA

Course Name	Advanced Laboratory Techniques for Diagnosis of Trans-boundary Animal Diseases (<i>Peste des petits ruminants</i> (PPR) and Foot-and-mouth Disease (FMD))
Course Level	1
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	This course includes: - An introduction to tissue culture techniques - Receipt and preparation of clinical samples. - RNA Extraction - Molecular Assays for PPRV and FMDV - Virus Isolation - Virus typing - Virus neutralization and vaccine matching.
Course Duration	10 days
Number of Participants per course	Variable
Delivery Mode	Introductory snapshot short theoretical discussion followed by practical hands-on laboratory learning.
Books/Manuals	Included
Language Mode	English
Who Should Attend	Veterinarians, veterinary technicians, animal health specialists, animal production specialists and related professions
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Basic Training in animal production and husbandry, animal disease control or associated veterinary experience, minimum of 2 years work experience
Special Requirements	South African Veterinarians and Animal health technicians must be South African Veterinary Council (SAVC) registered

Course Name	An Overview of Aspects of Veterinary Diseases and Disease Control
Course Level	1
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	This course includes the following topics: General mechanisms of injury for therapeutic intervention Livestock biosecurity Anthrax Tuberculosis Brucellosis Rift Valley Fever Rabies Foot-and-mouth disease Contagious Bovine Pleuropneumonia Contagious Caprine Pleuropneumonia
Course Duration	5 days
Number of Participants per course	Variable
Delivery Mode	Theoretical and PowerPoint presentations.
Books/Manuals	Included
Language Mode	English
Who Should Attend	Veterinarians, veterinary technicians, animal health specialists, animal production specialists and related professions
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Basic Training in animal production and husbandry, animal disease control or associated veterinary experience, minimum of 2 years work experience
Special Requirements	South African Veterinarians and Animal health technicians must be South African Veterinary Council (SAVC) registered

Course Name	Bacteriology
Course Level	2
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	This course contains several aspects covering post-mortem, sample collection and packaging; storage, transport and diagnostics
Course Duration	3 days
Number of Participants per course	Variable
Delivery Mode	Theoretical and practical
Books/Manuals	Included
Language Mode	English
Who Should Attend	Veterinarians, veterinary technicians, animal health specialists, animal production specialists and related professions
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Basic Training in animal production and husbandry, animal disease control or associated veterinary experience, minimum of 2 years work experience
Special Requirements	South African Veterinarians and Animal health technicians must be South African Veterinary Council (SAVC) registered

Course Name	Common and Important Diseases of Cattle
Course Level	3,4
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	This course covers the major diseases of cattle in southern Africa
Course Duration	1 days
Number of Participants per course	Variable
Delivery Mode	Theoretical presentation
Books/Manuals	Included
Language Mode	English, Sepedi
Who Should Attend	General public and farmers
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Animal health worker, livestock farmer, extension officers
Special Requirements	NA

Course Name	Herd Health and Reproduction Management Plan
Course Level	2,3
Location	ARC-OVR
Course Coordinator	Dr Mohamed M. Sirdar, Senior Researcher (Vet): Epidemiology and Training ARC-OVR Training Unit Manager SirdarM@arc.agric.za +27 (0)12 529-9154
Course Outline and Description	This course covers several aspects including: internal parasites, external parasites, body condition scoring in cattle, sheep and goats and management plans
Course Duration	2 days
Number of Participants per course	Variable
Delivery Mode	Theoretical presentation and practical demonstrations
Books/Manuals	Included
Language Mode	English
Who Should Attend	Livestock extension officers
Accommodation	Available on request
Course Fees	Provided on request
Entry Requirements	Basic Training in animal production and husbandry, animal disease control or associated veterinary experience, minimum of 2 years work experience
Special Requirements	NA