TRAINING OVERVIEW

The Academy has the resources to train all aspects of the Air conditioning and refrigeration fields up to NQF Level 4 and Trade Test. The emphasis is in the training of apprentices / learnerships, artisans and technicians as well as aspects for management requiring technical knowledge. The training is specialised to the fields of air conditioning, refrigeration and ventilation. The training is competency based, meaning, any student attending a course is given an in depth theoretical knowledge and the practical skills in order to achieve competency in the workplace. Given the nature of the training required all courses have a full practical element. The aim of all the training is such that on successful completion of any particular course the student will be capable to do the job as required.

HISTORY

ACRA’s roots date back to 1960 and in its current form ACRA opened its doors in August 1998, thus opening the doors of the Air Conditioning and Refrigeration Academy. Our Lecturers have trained students from the entire industry and have achieved international status training people from several of the southern African countries and as far afield as Australia and Canada. The ACADEMY became an accredited NAMB/QCTO Decentralised Trade Testing Centre in 2003.
TRAINING OFFERED AT ACRA

The ACRA Diploma

Air Conditioning and Refrigeration Technology 1 Course - Basic/Intermediate (10 Days)
Electrical 1 Course (pertaining to Air Conditioning and Refrigeration) - Basic/Intermediate (10 Days)
Installation, Fault Finding, Maintain & Repair of Split, Console and Window Units Course - Basic/Intermediate (5 days)
Air Conditioning and Refrigeration Technology 2 Course - Intermediate (10 Days)
Electrical 2 Course (pertaining to Air Conditioning and Refrigeration) - Intermediate (10 Days)
Authorised Refrigeration Practitioner Course - Safe Handling License (5 days)
Electrical 3 Course (pertaining to Air Conditioning and Refrigeration) - Intermediate/Advanced (10 Days)
Air Conditioning and Refrigeration Technology 3 Course - Intermediate/Advanced (10 Days)
Air Conditioning and Refrigeration Technology 4 Course - Diploma Section (10 Days)

Other Courses

Top-Up/Renewal Authorised Refrigeration Practitioner Course - Safe Handling License Renewal (2 days)
Welding, Brazing & Cutting (10 Days)

Trade Testing - Refrigeration Mechanic (JHB only)

Trade Test Preparation (from 5 - 10 Days)
Trade Test Test (2 Days)

Apprenticeships & Learnerships

Apprenticeship - Refrigeration Mechanic (Industrial/Commercial) Duration: min. 80 weeks - max. 4 years
Learnerships - Air Conditioning, Refrigeration & Ventilation NQF Levels 2, 3 and 4 Duration: 12 months per level

The Diploma Explained:

The Diploma encompasses most of the training that an Air Conditioning and Refrigeration Technician needs to be competent.

Course Objectives, Outcomes, Prices and Dates are outlined individually from page 5 onwards.

The Diploma consists of the following courses:
It is not necessary to complete all the courses at once, training can be broken up into sections.
(The courses should be completed in sequence)

Diploma Dates 2019
22 July - 25 October 2019

[Diagram of course sequence]
<table>
<thead>
<tr>
<th>Course Name</th>
<th>Air Conditioning and Refrigeration TECHNOLOGY 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry Requirements</td>
<td>Basic Literacy and Numeracy</td>
</tr>
<tr>
<td>Duration</td>
<td>10 days</td>
</tr>
<tr>
<td>Cost</td>
<td>R 12782,60 excl. vat</td>
</tr>
<tr>
<td></td>
<td><strong>R 14700,00 incl. vat</strong></td>
</tr>
<tr>
<td>NQF Level</td>
<td>Level 2</td>
</tr>
<tr>
<td>Module Codes</td>
<td>GW10,11,12,13; HT4; MA1; COM4/7; COM5/8; A59; CT1; ACS1.2; FA6.7; EV1,2; RF2,6,9,10,11,12,14,20,21</td>
</tr>
<tr>
<td>Objectives</td>
<td>This course represents all of the fundamental aspects of the theoretical knowledge and practical skills required by all persons wishing to work in the air conditioning and/or the refrigeration fields. This course forms the foundation and as such it is imperative that all persons complete the course. Technology 2, 3 and the diploma course follow. No previous knowledge or experience is required. The course has a full theory and practical component in our accredited workshops.</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Upon successful completion of this course the student will have the understanding of safety procedures, refrigerants, the Vapor Compression Cycle / Basic Thermodynamics. Tooling, Safety, Components and Accessories, Pipework, (Copper, Aluminum, Polyethylene composite), Servicing, Repair and Installation procedures. The student will be able to perform the applicable practical aspects on the job site. The student has the opportunity to further his studies. The range of study progresses through air conditioning and refrigeration to and including large central plants. It is strongly advised that students and companies consider the electrical course and technology 2 course.</td>
</tr>
<tr>
<td>Example of Skills</td>
<td>Pipe work / evacuation / flaring / swaging/ charging/recovery/ testing/ tools and instruments/ safety/ refrigerants/ refrigerant containers/ basic refrigeration cycle / fittings / trade related tools/ refrigerants/ air conditioning and refrigeration components Manifold gauges, Service valves, Operation and setting of expansion devices, setting pressure switches.</td>
</tr>
<tr>
<td>Available Dates</td>
<td>22 July - 02 August 2019</td>
</tr>
<tr>
<td></td>
<td>04 November - 15 November 2019</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Name</th>
<th>ELECTRICAL ONE (pertaining to Air Conditioning and Refrigeration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry Requirements</td>
<td>Technology 1 incl. Basic Literacy and Numeracy</td>
</tr>
<tr>
<td>Duration</td>
<td>10 days</td>
</tr>
<tr>
<td>Cost</td>
<td>R 12782,60 excl. vat</td>
</tr>
<tr>
<td></td>
<td><strong>R 14700,00 incl. vat</strong></td>
</tr>
<tr>
<td>NQF Level</td>
<td>Level 2</td>
</tr>
<tr>
<td>Module Codes</td>
<td>DSE1,2,3,4,5,8; CA1,2,4; AC6,7,8</td>
</tr>
<tr>
<td>Objectives</td>
<td>This course represents all of the fundamental electrical aspects of the theoretical knowledge and practical skills required by all persons wishing to work in the air conditioning and/or the refrigeration fields. This course forms the foundation of the electrical aspects and as such it is imperative that all persons complete the course. Electrical two and three courses follow. No previous electrical knowledge is required but Technology One should have been completed. The course has a full theory and practical component in our accredited workshop. This course is an electrical course specifically developed for persons in the air conditioning and/or refrigeration industry. The course compliments the Technology 1 and 2 courses as well as the unitary air conditioning range of courses. This course focuses on single phase systems.</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Upon successful completion of this course the student will have the understanding and the practical skills (competencies) needed on the worksite including the safety aspects, fundamentals of electrical, fundamentals of magnetism, safety aspects, tooling and instrumentation, cables, cable jointing and termination, trunking and conduit, motors starters basic controls and soldering techniques, basic diagrams and symbols.</td>
</tr>
<tr>
<td>Example of Skills</td>
<td>Installation of cables and conductors, cable jointing, cable termination, basic wiring, Use of tools and instruments, testing of basic components, testing of basic motors. sketch and construct single phase electrical circuits.</td>
</tr>
<tr>
<td>Available Dates</td>
<td>05 August - 16 August 2019</td>
</tr>
<tr>
<td></td>
<td>18 November - 29 November 2019</td>
</tr>
<tr>
<td>Course Name</td>
<td>Air Conditioning and Refrigeration TECHNOLOGY 2</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Entry Requirements</td>
<td>Technology 1 and Electrical One incl. Basic Literacy and Numeracy</td>
</tr>
<tr>
<td>Duration</td>
<td>10 days</td>
</tr>
<tr>
<td>Monday - Friday 08h00 until 15h00</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>R 12782,60 excl. vat</td>
</tr>
<tr>
<td><strong>R 14700,00 incl. vat</strong></td>
<td></td>
</tr>
<tr>
<td>NQF Level</td>
<td>Level 3</td>
</tr>
<tr>
<td>Module Codes</td>
<td>SF3; MA16,17; RSY1; ET5; FAB15,16, 17, 18, 19; AC5; LU2,5,6; IM4</td>
</tr>
<tr>
<td>Objectives</td>
<td>This course represents the fundamentals and aspects of the theoretical knowledge and practical skills required by all persons wishing to work in the air conditioning and/or the refrigeration fields. This course forms the second stage and as such is imperative the all persons complete the course. Technology 2, 3 and the diploma course follow. No previous knowledge or experience is required. The course has a full theory and practical component in our accredited workshop.</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Upon successful completion of this course the student will have the understanding of the Fundamentals of air conditioning, Superheat setting and the importance there of, sub-cooling, Pressure switch setting determination and actual setting on an installation, Basic refrigeration commissioning techniques and procedures, Types of refrigeration systems, Types of air conditioning systems, evaporative coolers, air conditioning components, heating, Critical charging student has the opportunity to further his studies. The range of study progresses through air conditioning and refrigeration to and including large central plants.</td>
</tr>
<tr>
<td>Example of Skills</td>
<td>Fault finding / basic commissioning / walk in fridges / freezer / air con units / critical charging / humidity / recovery of refrigerants/ servicing/ belt drives tensioning and alignment / couplings / bearings / various systems and their operation and application / controls and safety devices / vapor barriers / evaporative cooling installation.</td>
</tr>
<tr>
<td>Available Dates</td>
<td>03 June - 14 June 2019 02 September - 13 September 2019</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Name</th>
<th>ELECTRICAL TWO (pertaining to Air Conditioning and Refrigeration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry Requirements</td>
<td>Technology 1, Electrical One and Technology 2 incl Basic Literacy and Numeracy</td>
</tr>
<tr>
<td>Duration</td>
<td>10 days</td>
</tr>
<tr>
<td>Monday - Friday 08h00 until 15h00</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>R 12782,60 excl. vat</td>
</tr>
<tr>
<td><strong>R 14700,00 incl. vat</strong></td>
<td></td>
</tr>
<tr>
<td>NQF Level</td>
<td>Level 3</td>
</tr>
<tr>
<td>Module Codes</td>
<td>1-PHASE: CA1, CA2, CA4, AC6, AC7, AC8</td>
</tr>
<tr>
<td>Objectives</td>
<td>This course represents the intermediate electrical aspects of the theoretical knowledge and practical skills required by all persons wishing to work in the air conditioning and/or the refrigeration fields. The course has a full theory and practical component in our accredited workshop. This course is an intermediate electrical course specifically developed for persons in the air conditioning and / or refrigeration industry. The course compliments the Technology 1, 2 and Electrical One courses as well as the unitary air conditioning range of courses. This course focuses on single phase systems.</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Upon successful completion of this course the student will have the understanding and the practical skills (competencies) needed on the worksite. Types of circuit diagrams, reading electrical diagrams, symbols, single phase systems applicable to air conditioning and refrigeration systems, construction of circuits, panel layout and wiring, testing and wiring of single phase motors, components, conductors and accessories, volt drop, and the electrical maintenance aspects applicable. Single phase fault finding.</td>
</tr>
<tr>
<td>Example of Skills</td>
<td>Motor testing, circuitry and controls, setting control devices, inspection and maintenance of electrical control panels and circuits. Single phase panel wiring, construction of single phase circuits, component testing, single phase motor connections and starting, controls and safety devices.</td>
</tr>
</tbody>
</table>
Course Name | Air Conditioning and Refrigeration TECHNOLOGY 3
---|---
**Entry Requirements** | Completion of Technology 1, Technology 2, Electrical One & Electrical Two incl. Basic Literacy and Numeracy
**Duration** | 10 days
**Cost** | R 12782.60 excl. vat
**R 14700.00 incl. vat**
**NQF Level** | Level 4
**Module Codes** | AS3,7,8,10,11,12; CP1,2,9; CT2,3; EV3; ACS3; COM9; LU1,3,7; INS1; PU8,9,10; COD1
**Objectives** | On successful completion of this course the student will have the necessary knowledge and practical skills to perform more of the advanced aspects of the trade related to central plants / ducted / indirect systems. Chillers, air delivery systems, filtration, water reticulation systems form the focal point of this course. Some of the technical aspects include bearings and basic lifting.
This course is the third phase of the diploma course but may be used alone ending at this level.
**Outcomes** | Product classifications and relative humidity in refrigeration applications, multiplex refrigeration systems, refrigeration and air conditioning system burn out procedures, central and industrial air conditioning systems, maintenance schedules, air distribution equipment, air cleaning equipment and filtration, lubrication, water reticulation equipment, pipe grooving, ventilation and ventilation rate, determination and measurement, airflow measurement, heating, basic psychrometrics and variable volume systems, water treatment methodology and systems.
**Example of Skills** | Air flow balancing, developing and applying maintenance schedules, burn out procedures, ventilation rate measurement, air flow measurements, installation of unitary systems, commissioning, lubrication, fans and pumps and basic psychometrics, pipe grooving.
**Available Dates** | 01 July - 12 July 2019 30 September - 11 October 2019

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Course Name | Authorised Refrigeration Practitioner License (Safe Handling of Refrigerants)
---|---
**Entry Requirements** | Basic Literacy and Numeracy (Technology 1 is advisable)
**Duration** | 5 days
**Cost** | R 6391.30 excl. vat
**R 7350.00 incl. vat**
**NQF Level** | Level 3
**Module Codes** | SF1, SF2, SF5
**Excludes** | Saracca Reg. fee of R 2 392.00 incl. vat payable directly towards SARACCA
On successful completion of the course the candidate have to apply for the License Card via SARACCA
2 colour id photos, certified copy of id, certified copy of Acra Certificate and Trade Test Certificate
(if applicable) should be attached to the application / emailed to SARACCA. Candidates who apply for the license card will also be registered on the website www.saqccgas.co.za
**Unit Standards** | 116223, 116334, 116355, 116700, 116468
**Module Codes** | SF1, SF2, SF5, COD1
**Outcomes** | This course, required by law enables persons to register as an authorised person in the relevant categories with SARACCA.
**Example of Skills** | The candidate will understand the Safety and Legal aspects with regards to the Pressure Vessel Regulation
**Available Dates** | 10 June - 14 June 2019 15 July - 19 July 2019
26 August - 30 August 2019 28 October - 01 November 2019
09 December - 13 December 2019
**Course Name**: Installation, FaultFinding, Maintain & Repair of Split, Console & Window Units  
**Entry Requirements**: Technology 1 and Electrical One incl. Basic Literacy and Numeracy  
**Duration**: 05 days  
**Monday - Friday 08h00 until 15h00**  
**Cost**:  
R 6391,30 excl. vat  
**R 7350,00 incl. vat**  
**Module Codes**: FA3, FA4, FA5, RF7, RF13, DR2, DR12, DR3, DR4, DR7  
**NQF Level**: Level 2 & 3  
**Objectives**: Covering the installation, maintain & repair of all aspects of small air conditioning units excluding repair of printed circuit boards. Amongst others, the replacement of compressors & other components, evacuation and critical charging of these units. This course includes basic theory of the functions of the components as well as the practical safety and installation procedures of the above-mentioned units.  
**Outcomes**: Upon successful completion of this course the student will have the understanding and the basic practical skills (competencies) needed on the worksite for the installation, maintain and repair of air conditioning unitary systems. The student will perform on actual installations as part of training. Full workshop training component.  
**Example of Skills**: For Window/ Console/ and split unit air conditioning: Compressor testing/ Compressor replacement/ burnouts/ critical charging/ testing/ recovery of refrigerants. Full installations, all repairs, servicing and maintenance. Areas include: pipe work/ brazing/ evacuation/ fitters/ driers/ vapor barrier etc.  
**Available Dates**:  
03 June - 07 June 2019  
02 December - 06 December 2019  
19 August - 23 August 2019

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**Course Name**: Air Conditioning and Refrigeration TECHNOLOGY 4 (Diploma Section)  
**Entry Requirements**: Completion of Technology 1, Technology 2, Electrical One, Electrical Two, Electrical Three & Technology 3, Authorised Refrigeration Practitioner License, Maint. Fault Finding and Installation incl Basic Literacy and Numeracy  
**Duration**: 10 days  
**Monday - Friday 08h00 until 15h00**  
**Cost**:  
R 12782,60 excl. vat  
**R 14700,00 incl. vat**  
**NQF Level**: Level 4  
**Module Codes**: FA3,4,5; RF7,13; DR2,12,3,4,7  
**Objectives**: This course includes the advanced aspects of air conditioning and refrigeration including central plant and air conditioning in depth. This course will enable the student to perform retrofitting work, conduct heat load calculations for quoting and installation purposes, ventilation rate calculations for commercial and industrial applications, calculation of system performance, capacity, advanced fault finding, evaporative cooling sizing and design.  
**Outcomes**: Upon successful completion of this course the student will have the understanding and skills to determine a systems operating parameters from a pressure enthalpy diagram, calculation of plant capacities, C.O.P., compressor efficiency, mass flow, heat rejection, confirmation of superheat and sub-cooling etc. In addition: fault finding using a pressure enthalpy chart, heat load calculations for air conditioning and refrigeration applications, the retrofitting process, psychometrics. Although this is an in depth course the level is within the artisans / technicians scope of work. This course is very popular with the medium to large corporate client running a central plant / ducted or indirect system and with persons wishing to have an in depth understanding of the trade.  
**Example of Skills**: Central plant air conditioning / advanced fault finding using mollier diagrams / heat load calculations. Psychometrics, air flow rates and balancing, determination and calculation of ventilation rates, air changes per hour/ humidity/ maintenance schedules / evaporative cooling sizing and design. Properties of air, humidification, calculations involving heat & mass transfer. Air flow measurements, air changes, flow rates, duct balancing, define operating parameters, refrigerant blends/temperature glide, operational faults & remedial action. Detailed practical mollier chart application, determination of plant capacity, C.O.P., Compression ratios, super heat & sub cooling, mass flow etc.  
**Available Dates**:  
14 October - 25 October 2019
### Top-Up / Renewal Authorised Refrigeration Practitioner (Safe Handling of Refr)

**Course Name**: Top-Up / Renewal Authorised Refrigeration Practitioner (Safe Handling of Refr)

**Entry Requirements**: Valid or expired Acricsa/Saracca Safe Handling License incl. Basic Literacy and Numeracy

**Duration**: 2 days

**Monday - Tuesday 08h00 until 15h00**

**Cost**: R 2556,52 excl. vat

**R 2940,00 incl. vat**

**NQF Level**: Level 3

**Module Codes**: SF1, SF2, SF5

**Excludes**: Saracca Reg. fee of R 2 392.00 incl. vat payable directly towards SARACCA

On successful completion of the course the candidate have to apply for the License Card via SARACCA

2 colour id photos, certified copy of id, certified copy of Acra Certificate and Trade Test Certificate (if applicable) should be attached to the application / emailed to SARACCA. Candidates who apply for the license card will also be registered on the website [www.saqccgas.co.za](http://www.saqccgas.co.za)

**Unit Standards**: 116223 & 116334


**Outcomes**: This course, required by law enables persons to register as an authorised person in the relevant categories with SARACCA.

**Example of Skills**: The candidate will understand the Safety and Legal aspects with regards to the Pressure Vessel Regulation.

**Available Dates**: 10 June - 11 June 2019

15 July - 16 July 2019

26 August - 27 August 2019

28 October - 29 October 2019

09 December - 10 December 2019

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### Welding, Brazing & Cutting

**Course Name**: Welding, Brazing & Cutting

**Electric Arc, CO2, copper to copper, Oxy/Acetylene and aluminum welding**

**Entry Requirements**: Basic Literacy and Numeracy

**Duration**: 10 days

**Monday - Friday 08h00 until 15h00**

**Cost**: R 12782,60 excl. vat

**R 14700,00 incl. vat**

**Module Codes**: AO1;AO2;AO3;AO4;GC1;GC2;GC3,TA1,2,3,4

**Objectives**: Typically for candidates working on general welding i.e.. brackets/condenser brackets. Perform basic arc welding, brazing of copper to copper, copper to brass and use of the cutting torch. Selecting and checking welding equipment and consumables. Operating welding equipment. Applying safety equipment and procedures. Ensuring suitability and strength of weld. Electric arc/CO2 and aluminum welding available.

**Outcomes**: On successful completion of this course the student will be able to:

- Job instructions are obtained and interpreted.
- Identify arc-welding equipment and check it for safety and suitability. Welding consumables are inspected for correct size and suitability. Metals to be welded are inspected for suitability. Things that make metals and/or consumables unsuitable are listed and discussed. Safety equipment and procedures required are listed and discussed. Arc-weld metals. Metals to be welded are prepared for welding process. Work area is inspected for fire hazard, secured and made safe. Appropriate welding process is applied. Weld is cleaned using correct procedure. Consequences of using wrong power setting or wrong consumables are listed and explained. Correct and all safety equipment is used. Apply quality checks on completed weld and correct if necessary. Visual check is conducted to ensure quality weld. Weld is checked for strength. Work-piece is checked for compliance with job sheet. Improper welded sections are made good.

**Example of Skills**: Arc welding, brazing, cutting, electric arc, CO2 welding, copper to copper, oxy/acetylene and aluminum welding.

**Available Dates**: 15 April - 26 April 2019
Apprenticeships & Learnerships

Training Programme

Apprenticeship Refrigeration Mechanic (Industrial & Commercial)

The apprenticeship system is a well known technical training system, including practical and theoretical components offered in designated trades to achieve artisan status. We have formed partnerships with stakeholder and can offer full training of the knowledge component, the practical aspects and most importantly WE ARRANGE AND MANAGE WORKPLACE PROVIDERS FOR THE APPRENTICES AS PART OF OUR PROCESSES.

INFORMATION AVAILABLE ON REQUEST!

Agreement Duration with Merseta: 3 - 4 years
Training Duration at ACRA: 6 months

CLASS TIMES AND INFORMATION

Mondays - Thursday:
- Training Start: 08:00 am
- Training Ends: 03:00 pm
- Lunch Time: 12:00 pm
- Lunchtime Ends: 12:45 pm
- Study Time Start: 03:00 pm
- Study Time Ends: 04:00 pm

Fridays:
- Training Start: 08:00 am
- Training Ends: 13:00 pm

Tea Breaks

Tea & Coffee is included and will be served at the following times
- Morning - 7:30am to 8:00am
- Tea Break - 10:00am to 10:30am
- Lunch Time - 12:00pm to 1:00pm
- Tea Break - 3:00pm to 3:30pm
(Cold drinks are available at Tuck Shop)

What to Bring

SAFETY SHOES - no students will be allowed in the workshop without safety shoes
Stationary - pen, pencil, ruler, eraser, highlighters, note pad and calculator - NO CELLPHONES ALLOWED DURING CLASS
ID / copy of ID & Suitable clothing for practical training

Bookings

See attached 2019 Enrollment form - please complete the form and return via email to info@acra.co.za
Also send a copy of id and proof of 50% Deposit paid

ACCREDITATION

The Academy carries FULL ACCREDITATION (merSETA) for the training of apprenticeships, learnerships and training courses in air conditioning and refrigeration levels 2 through to 4, as well as QCTO (Quality Council for Trades & Occupations), NAMB (National Artisan Moderation Body) and DHET (Department of Higher Education and Training) Decentralised Assessment Centre status for Trade Testing and licensing for Safe Handling of Refrigerants for the South African Refrigeration and Air Conditioning Contractors Association (SARACCA). All courses are therefore recognised and are nationally and internationally certificated and/or licensed or carry a Diploma.

INDUSTRY INVOLVEMENT

ACRA and ACRA’s staff are heavily involved in industry at various levels. Mr. Laidlaw is the current SAIRAC (South African Institute for Refrigeration and Air Conditioning) President. Mr. Laidlaw has been appointed to represent NAMB as an expert practitioner for the development of trade qualifications and trade testing. Mr. Laidlaw has published many articles in trade magazines and is a permanent contributor for the RACA Magazine and serves on the Advisory Committee. Furthermore Mr. Laidlaw is a registered DOL/SAQCC Gas Inspector.

Mr. Charel Marais is a Committee Member of SAIRAC Johannesburg, has written several articles in the trade magazines and is a registered DOL/SAQCC Gas Inspector.
ACRA’s TRAINING PARTNERS

It is ACRA's policy to involve industry role players as training partners ultimately this results in ACRA's training being cutting edge and in line with the latest trends in industry. Our partners introduce the latest technologies and equipment to the training centre. Their assistance with equipment keeps our training costs manageable and our courseware up to date. Our current training partners include:

Testo South Africa (Pty) Ltd
A-Gas (South Africa) (Pty) Ltd
Umicore Marketing Services Africa (Pty) Ltd
Direct Digital Control Services / Innotech
Belimo
Seeley International / Breezair
Quickpro Pipes
Whirlpool
Shamus Rennie
Full Gauge Controls
Evapco
Samsung
Vicatulic
GEA
Copper Development Association Africa

THE ACRA TEAM (JOHANNESBURG)

Assessors/Moderators/Lecturers/Trade Test Officers:
Grant Laidlaw  CEO / Lecturer / Assessor / Moderator / Trade Test Officer
Harry Hanekamp  Lecturer / Assessor / Moderator / Trade Test Officer
Stewart Laidlaw  Lecturer / Assessor / Trade Test Officer
Koos Pieterse  Lecturer / Assessor / Trade Test Officer
Charel Marais  Lecturer / Assessor
Chris Coetzer  Lecturer / Assessor
Roeloff Vorster  Lecturer
Emor Potgieter  Lecturer

Marketing & Sales:
Claudine Laidlaw  Project Manager

Admin, Bookings & Accounts:
Anria Pieterse  Admin Manager / SDF / Accounts & Trade Test Queries
Annelize Grobbelaar  Office Administrator / Bookings
Alicia Leary  Reception / Bookings
Sifiso Mpala  Office & Kitchen Assistant

THE ACRA TEAM (KZN)

Assessors:
Cyril Macquet-Maurel  Assessor

Admin, Bookings & Accounts:
Claudia Lee  Admin / Bookings / Accounts