# AIRCRAFT MAINTENANCE AND OVERHAUL

**COURSE INFORMATION** 



SKILLS • KNOWLEDGE • ATTITUDE

APPROVAL AND ACCEDITATION

South African Civil Aviation Authority: SACAA/1529/ATO Quality Council for Trades & Occupations: 07-QCTO/SDP030222-4402

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## PROGRAME INFORMATION

Programmed name	AIRCRAFT MAINTENANCE AND OVERHAUL
Award	National Certificate / Diploma and Trade Certificate
School	The School of Engineering
Department	Aviation College
Type of study	Full time
Total credits in South Africa	189 Minimum Credits
Partner (partnership programmed only)	None
South African Qualification Authority Code	48861

### PROGRAMME SUMMARY

ATASA Aircraft Maintenance and Overhaul program is designed to enable students to achieve their South African Civil Aviation Authority (SACAA) Aircraft Maintenance Engineers License, along with their Trade Certificate/Diploma.

This qualification is designed to be flexible and accessible so that people can demonstrate the competencies required to work safely and productively in the different disciplines within an Aircraft Maintenance and Overhaul environment. Recipients of this qualification will have knowledge and skills in the areas of fundamental life skills;

- Aircraft Airframes
- Aircraft Power Plant
- Aircraft Electrical
- Aircraft Instruments
- Aircraft Radio (Navigation and Communication Systems)
- Aircraft Structures.
- Occupational Health & Safety Environment
- Quality

Students who wish to enroll with ATASA for aircraft maintenance and overhaul program should note that the program has three parts which are theory, practical and on the job training. As the program is approved by the SACAA under CAR Part 141. Each module must be completed with a passing grade for theory and practical's where applicable for the specific modules. And on the job training phase must be completed before a student can obtain the qualification.

All training is conducted as a normal credit hour module and is divided in three parts, fundamentals, core and electives.

You must meet the general admission requirements for ATASA programs. Although the Admissions Office will determine which admission category, or standing, you will be in.

Aerospace Training Academy of SA wants your training to be safe, productive and enjoyable. To this end, there are a number of regulations set out by the SACAA regulations and technical standard, practices and procedures specified by ATASA that students need to understand and comply with. All students are required to sign formal training agreements that will explain these details.

# Admission Requirements for Aviation National Certificate/Diploma Program

In addition to meeting the general admission requirements, applicants must meet the following program-specific requirements:

## **Academic Course Requirements**

English Language: Level 4 (50-59%)
Mathematics (Pure): Level 4 (50-59%)
Physical Science: Level 4 (50-59%)

### **Conditional Admission**

Conditional Admission may be granted pending receipt of final/official transcripts. However, confirmation of admission will be subject to verification of minimum grade requirements upon receipt of all final/official transcripts by ATASA.

## **Program Fees and Payment**

### **Tuition Fees**

Approximately R118,862.50 for 18 months, including:

- Study materials
- Additional program requirements
- Training Aids

## **Payment Terms**

- A 15% deposit is required at the beginning of the program.
- Monthly fees must be paid on time.
- Fees are subject to change yearly.

## **Securing Your Place**

A 15% deposit of the fees must be paid to secure your place upon successful application.



### Program Overview

The Aircraft
Maintenance and
Overhaul program,
offered through
ATASA and its
training partner, is
an 18-month
comprehensive
course.

### **PAYMENT BREAKDOWN**

The Aircraft Avionics program combines the study of aircraft instruments, radio, and electrical systems. This comprehensive program consists of: 18 months of theoretical and practical training at ATASA, 18 months of on-job training at an approved aircraft maintenance facility, Completion of a training log book. Upon fulfilling these requirements, learners will be eligible to write their trade test. The total program duration is approximately 36 months.

NOTE: The on-job training component of the program is provided at no additional cost to learners. Furthermore, learners

may be eligible to receive a stipend or allowance from the hosting company during this phase. Please note that

ATASA's responsibility is limited to arranging the on-job training placement, and we do not guarantee or administer

any payments or allowances that may be provided by the hosting company.

Fees			
1	Application Fee	R 500,00	
2	School Fees	R 101,612.50	
3	Personal Protective Equipment	R 4,250.00	
4	Tool	R 8,625.00	
5	Training Log Book, completion and monthly monitoring	R3,375.00	
6	On the Job Training (OJT)	R 0	
	Total program cost	R 118,862.50	
	Trade Test Fees only payable at the end of On Job Training at an accredited centre.		

# International Students (Citizens from Countries Other than South Africa)

For international students applying to the **Aircraft Maintenance and Overhaul** (**Avionics**) program, the following fees and payment terms apply:

- Application Fee: International students are required to pay an application fee of R1,500.
- **Program Fees**: International students who are not citizens of the Southern African Development Community (SADC) will be required to pay **50% of the total program fees** before registration is possible. The total program cost for the **Aircraft Maintenance and Overhaul (Avionics)** program is approximately **R118,862.50** for 18 months, which includes study materials, additional program requirements, and training aids. Please ensure that you meet the financial requirements before proceeding with registration. For further details on payment terms, securing your place, and other program-related information, please refer to the **Program Fees and Payment** section of this brochure.

## **Program Overview**

The aviation industry is taking off, creating an unprecedented demand for trained Aircraft Maintenance Engineers. This program offers hands-on instruction and uses actual aircraft to develop skills for the repair and maintenance of airframes, engines, and associated systems for aircraft (airplanes and helicopters).

# Why choose ATASA

A modern training facility, ATASA's program provides students with the opportunity to build their skills using the latest technology and to apply their learning to real aircraft. You'll be working alongside highly experienced industry experts who will train you to meet the very high standards of the aviation industry. You'll also be working on aircraft, giving you some very powerful practical experience. Throughout the year/s, ATASA will bring in industry experts to provide learning opportunities in specialty areas of study.

# **Employment Opportunities**

Students could seek employment with various airlines, aircraft maintenance and overhaul facilities throughout Africa and the rest of the world. This course allows the student to also qualify for office-based work in technical support, technical operations, Maintenance planning, Production Planning and many more opportunities within the aviation industry.



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## **Curriculum & Courses**

Below is the list of courses required to complete the Aircraft Maintenance and Overhaul Program and is effective from 2023

# AIRCRAFT MAINTENANCE AND OVERHAUL- Course Breakdown

	Module	Course Names	Credits	
Mod 1	Mathematics	Module 1 Mathematics	40	Fundamental
Mod 2	Language and Communication	Module 2 Language and Communication	16	Fundamental
Mod 3	Key Aviation Principles and Regulations for Maintenance Personnel	Module 3.1 SA Car's and SA Cat's Module 3.2 fixed Wings Aerodynamics Module 3.3 Rotating Wings Aerodynamics Module 3.4 Instruments Systems (ATA 31)	40	core
Mod 4	Aircraft Power Plants	Module 4.1 Aircraft Reciprocating Engines Principles Module 4.2 Gas Turbine Engines Theory Module 4.3 Aircraft Auxiliary Power Units Module 4.4 Aircraft Propellers Module 4.5 Aircraft Transmissions Systems	60	Core
Mod 5	Aircraft General Standards Practices	Module 5.1 Materials and Hardware Module 5.2 Maintenance Practices	12	Core
Mod 6	Aircraft Electrical and Electronics Systems	Module 6.1 Safety Management Systems Module 6.2 Aircraft Electrical and Electronics Systems	23	Core
Mod 7	Basic Aircraft Electrical	Module 7 Basic Aircraft Electrical	16	Elective
Mod 8	Aircraft Instrumentation	Module 8 Aircraft Instrumentation	84	Elective
Mod 9	Aircraft Electrical and Components	Module 9 Aircraft Electrical and Components	120	Elective
Mod 10	Aircraft Navigation and Communication Systems	Module 10 Aircraft Navigation and Communication Systems	81	Elective
Mod 11	Assembly of Aircraft Structure	Module 11 Assembly of Aircraft Structure	28	Elective
Mod 12	Inspection and Repairs of Aircraft Structures	Module 12 Inspection and Repairs of Aircraft structures	7	Elective
Mod 13	Manufacturing of Aircraft Structures Components	Module 13 Manufacturing of Aircraft Structures Components	38	Elective
Mod 14	Gas Turbine Engines Maintenance	Module 14 Gas Turbine Engines Maintenance	79	Elective
Mod 15	Reciprocating Engine Maintenance	Module 15 Reciprocating Engine Maintenance	59	Elective
Mod 16	Fundamental Principle for Maintenance & Repair of Helicopter	Module 16 Maintenance & Repair of Helicopter	32	Elective
Mod 17	Aircraft Systems	Module 17.1 Electrical Power (ATA 24) Module 17.2 Equipment and Furnishing (ATA 25) Module 17.3 Fire Protection (ATA 26) Module 17.4 Flight Controls (ATA 27) Module 17.5 Fuel Systems (ATA 28) Module 17.6 Hydraulics Power (ATA 29) Module 17.7 Ice and Rain Protection (ATA 30) Module 17.8 Landing Gears (ATA 32) Module 17.9 Lights (ATA 33) Module 17.10 Oxygen (ATA 35) Module 17.11 Pneumatic/vacuum (ATA 36) Module 17.12 Water and Waste (ATA 38) Module 17.13 Cabin Pressure and Air Conditioning	103	Elective
Mod 18	Digital Technology	Module 18 Electronic Instruments Systems	18	Elective
Mod 19	Human Factors in Aircraft Maintenance	Module 19 Human Factors in Aircraft Maintenance	12	Core
Mod 20	Aircraft Inspection technics – aircraft and rotating	Module 20 Aircraft and Rotating Assemblies	49	Elective

## **INSTRUCTORS**

ATASA's instructional team comprises seasoned professionals with extensive industry experience in training and mentoring personnel. All aviation instructors undergo rigorous vetting and approval by the South African Civil Aviation Authority (SACAA) before commencing training.

Our instructors possess relevant aviation qualifications and practical expertise, enabling them to impart advanced skills and knowledge acquired over years of experience. Additionally, ATASA employs fully qualified and approved Assessors and Moderators who possess comprehensive knowledge and expertise in aviation training and quality assurance.

To ensure a hands-on learning experience, instructors utilize state-of-the-art equipment and instruments in our workshop, all of which have undergone stringent quality checks to quarantee safety and quality.

As a regulated industry, aviation demands uncompromising adherence to quality and safety standards. ATASA prioritizes compliance, investing heavily in measures that ensure the highest standards are consistently met.

### **FACILITIES**

#### Learning and Practical Facilities

ATASA boasts state-of-the-art facilities designed to provide a comprehensive learning experience.

### Classrooms

Our classrooms are fully equipped to facilitate engaging theoretical learning sessions and classwork.

#### Workshop

Our in-house workshops are equipped with an array of practical avionics instruments, mechanical tools, and equipment, providing hands-on experience for our students.

#### **Practical Facilities**

The academy features world-class practical facilities for Avionics and Hand Skills training, ensuring our students receive the highest standard of practical instruction.

We therefore assure you that your learning experience with ATASA will be of high quality and very much enjoyable.

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