

SACAA/1553ATO



NTSU DRONE ACADEMY TRAINING BROCHURE 2024

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REMOTE PILOT Certificate (RPC) COURSE 2024



RPC ADMISSION REQUIREMENTS 2024



Remote pilot certificate (RPC)

A remote pilot certificate required for entrepreneurs and drone business start-ups. The Remote pilot certificate is issued by the South African Civil Aviation Authority (SACAA).

Dear Student,

Thank you for choosing Ntsu Drone Academy to do your RPC course.

Admin requirements:

The following Student documents are required.

- ❖ Completed Student Information Form (Sent via email before the start of training)
- ❖ Copy of ID Document or Passport for non South-African citizens.
- ❖ Copy of Matric Certificate.
- ❖ Two ID Photos.
- ❖ Copy of Class 3 Medical Certificate.

Note:

The Class 3 medical certificate needs to be completed and issued by an approved SACAA Medical Examiner. This medical examination cannot be done by your local GP.



RPC Theory Training

Subject – Theory

- RPAS Air Law Part 101
- Construction and Flight General
- Battery Fundamentals and Radio Links
- Flight Planning and Navigation and
- Meteorology
- Human Performance
- Restricted Radio Telephony

Theory training can be done online using Zoom or done in person (Classroom). When attending online RPC training, students are required to log on by 8h15 every morning to complete admin. In person RPC training starts at 9am every morning for the duration of the RPC theory course

RPC Theoretical examination:

Once the Theory Training has been completed, a Final Theoretical Examination will be written.

RPC Exam information:

- Should you not be in a position to write your RPC Examination, kindly inform the instructor and schedule a suitable date and time.
- Pass mark required for the RPC theory exam is 75 %
- No extra charge for re-write of RPC Theory Exam.
- You have 90 days from the date of completing your RPC Theory Exam to finish the rest of the requirements for submission to the SACAA. These include,
 - Class 3 medical and chest X-Ray
 - English language proficiency (ELP)
 - SACAA Restricted radio telephony Online exam
 - Restricted radio practical training.

The Restricted radio telephony exam

This is a Online SACAA exam written at the SACAA or at an approved aviation training organization and you need to achieve 75% in order to pass the radio exam. NTSU Will provide you with a radio mock exam subscription (Valid for 3 months) to assist you with the radio telephony exam. It is suggested that you complete 100 mock exams before attempting to write the final Radio telephony SACAA exam.

Rewrite after radio exam failure:

A student will have to wait 7 Calender days before applying for a radio exam rewrite. The student will have to cover the costs of the Radio exam rewrite.

Practical Training

RPC Practical Training Information:

- Practical Training needs to be booked in advance before attending the training.
- The practical will only be booked once the students have passed their Theory Examination and have completed all 3 SACAA requirements.
- An information email is sent out with documents attached – these documents need to be printed by the student and taken with to the practical.
- Practical training consists of exercises to be completed and performed to the required SACAA standard.
- Duration of Practical's will depend entirely on each individual student. Each student learns to fly at his/her own pace and depends on the ability to grasp the maneuvers.
- On average it takes about a week to complete the practical, however, this could take longer dependent on the student's ability.

RPC Skills Test

- On completion of the Practical Training, the Instructor will issue the student with a Letter of Recommendation.
- The letter basically confirms that the student is ready to proceed with the final Skills Test with the DRE and is scheduled.



2024 RPC SCHEDULE

15 January - 19 January

12 February - 16 February

4 March - 8 March

8 April - 12 April

13 May - 17 May

10 June - 14 June

8 July - 12 July

12 August - 16 August

9 September - 13 September

7 October - 11 October

11 November - 15 November

RPC Skill test procedure

▪ **Ground Evaluation (Verbal exam)(1hour 15min + -).**

This is the very first part in the test where your theoretical knowledge will be assessed regarding aviation in general, PART 101, technical knowledge, flight planning ability, reading of maps etc.

▪ **Pre-flight check on Drone (5 – 10min)**

A full pre-flight check will be done for the examiner to assess whether the drone is airworthy. In the pre-flight check the examiner may ask some technical questions regarding the aircraft that you will be tested on.

▪ **Safety briefing will be done (5 – 10min)**

A safety briefing will be done for the examiner covering aspects of the operation like orientation, roles of responsibility, hazards etc. It is good to try and include all people on site when doing the risk assessment.

▪ **Flight test (15 – 20min)**

Practical flight test will be performed after safety briefing where radio communication ability, flying skill, Airmanship etc. will be assessed.

▪ **Debriefing with examiner (10 – 15min).**

Examiner does a debriefing with you to give you feedback and recommendations.

RPC Submission to the SACAA:

Once you have successfully completed your RPC skills test we will submit your RPC documents to the SACAA for processing and license issuing. During this stage NTSU requires the following from a student,

- *Certified copy of your medical certificate*
- *Certified copy of I.D*
- *Two passport color photo's*
- *Restricted radio application form and exam results*
- *Language proficiency certificate or Matric certificate.*

NTSU needs to submit your RPC paperwork to the SACAA within 30 days of doing your final RPC Skills test, otherwise you will have to redo a RPC Skills test with a DRE.

RPC Renewal:

The RPC renewal will be conducted by a SACAA approved Designated examiner. During the RPC Renewal the examiner will follow the same procedure as for the Initial RPC skills test procedure as indicated above.

It is recommended that a student attend refresher training before attempting the RPC renewal skills test. The following documents are needed when attending the skills test,

- Valid Class 3 or higher medical, RPC and Logbook.

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BEYOND VISUAL LINE OF SIGHT (BVLOS) COURSE 2024



BVLOS ADMISSION REQUIREMENTS 2024



Beyond Visual Line of Sight (BVLOS)

A BVLOS operation is one in which the remote pilot cannot maintain direct unaided visual contact with the remotely piloted aircraft to manage its flight and to meet separation and collision avoidance responsibilities visually.

Dear Student,

Thank you for choosing Ntsu Drone Academy to do your BVLOS course.

Admin requirements:

The following documents are required from each student:

- ❖ Completed Student Information Form (Sent via email before the start of training)
- ❖ Copy of RPC which the correct endorsement on the license.
- ❖ Copy of medical certificate.
- ❖ Access to a laptop capable of running simulation software (Mission Planner).

Bvlos Course Delivery

Learning Style: Virtual/Classroom and Practical
Duration: 5 days (3 theory and 2 practical)

2024 BVLOS SCHEDULE

22 January - 26 January
19 February - 23 February
11 March - 15 March
15 April - 19 April
20 May - 24 May
24 June - 28 June
22 July - 26 July
19 August - 23 August
16 September - 20 September
14 October - 18 October
18 November - 22 November

Bvlos Theory Training

Day 1 – 3 will consist of the following ground school:

- RPAS Air Law Part 101
- Meteorology
- Factors affecting aircraft and performance
- Wireless links
- Human Factors
- Radiotelephony
- Threat and Error Management (TEM)
- Ground and airborne collision Avoidance
- Control of the RPA(A)
- Navigation Procedures

Bvlos theory training can be delivered in the following two ways depending on your preference,

- Online training using Zoom.
- In person training.

Once the theory is completed, a theory exam needs to be written and passed with a minimum of 75%. Once the exam has been passed, we will begin the Practical training.



Practical Training

BVLOS Practical Training Information (Day 3 – 4).The following will be covered during Day 3 and 4 of the Bvlos course,

- Mission loading and verification
- Monitoring RPS for
 - C2 link quality/degradation
 - Power reserves
 - RPA status monitoring
- Normal and cross-wind take-offs and landings
- Maximum performance (Short field and obstacle clearance take-offs, short-field landings)
- Abnormal and Emergency Procedures:
 - Loss of orientation
 - Recovery from flight at
 - Recovery from unusual attitudes using
 - Flight instrumentation
 - Abnormal and emergency procedures; and
 - Maneuvers.

Bvlos skills test:

For a Pilot to be assigned to BVLOS rating he/she should have completed the following:

- Pass the BVLOS theoretical exam with a pass mark of at least 75%;
- Pass the Bvlos skills test with an Approved SACAA examiner in order to be assigned as PIC in BVLOS operations;



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UNMANNED AIRCRAFT SYSTEM MAINTENANCE TECHNICIAN (UASMT) COURSE 2024



UASMT COURSE ADMISSION REQUIREMENTS 2024



Unmanned Aircraft system Maintenance Technician (UASMT)
Fundamentals of drone maintenance principles, concepts and
hands-on experience necessary to obtain the UASMT license
from the South African Civil Aviation Authority.

Dear Student,

Thank you for choosing Ntsu Drone Academy to do your UASMT course.

Admin requirements:

The following documents are required from each student:

- ❖ Completed Student Information Form (Sent via email before the start of UASMT training)
- ❖ ID Document or Passport for non South-African citizens.
- ❖ No aviation medical required.
- ❖ Minimum age for UASMT training is 18 Years of age.



Course objectives

- Part 101 maintenance requirements within the context of an ATO and the ROC.
- Practical experience to perform maintenance functions for the specific aircraft type.
- Basic understanding of various drone components (e.g. airframe, battery care, ESC etc.)

Course Delivery

- Learning Style: Classroom and Practical
- Duration: Up to 16 hours

UASMT Course Description

The course is designed to provide participants with a fundamental understanding of drone maintenance principles and concepts. The course also provides practical experience necessary to attain an UASMT license as per Part 101 requirements.

Student will receive UASMT license issued by the Civil Aviation Authority after successful completion of training.

MAINTENANCE
TECHNICIAN
SYLLABUS

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Why Maintenance

- Concept of maintenance (ICAO Annex 8).
- Role of maintenance in the organization's Safety. Management System (Annex 19).
- Part 101 regulations.
- Documentation (Records etc.)

Power Plant

- Batteries
 - Battery Types.
 - Charging-Discharging.
 - Handling.
 - Transportation.
 - Storage.

Propulsion System

- Motors
- Propellers
- ECS

Software/Firmware

- Update

Pre/Post Flight Inspection

- Checklists

Airframe

- Inspection
 - Airframe
 - Landing Structure
 - Payload Mount
 - Antennae

Remote Pilot Station (RPS)

- Inspection
- Controls and buttons

Compass

- Calibration

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INSTRUCTOR RATING COURSE



INSTRUCTOR RATING ADMISSION REQUIREMENTS 2024



INSTRUCTOR RATING COURSE:

Allows a Remote pilot license holder to further their aviation knowledge, Skills and experience by training other student remote pilots at an approved aviation training organization.

Dear Student,

Thank you for choosing Ntsu Drone Academy to do your Instructor rating course.

Admin requirements:

The following documents are required from each student:

- ❖ Completed Student Information Form (Sent via email before the start of training)
- ❖ Copy of RPC with the correct endorsement on the license.
- ❖ Copy of medical certificate.
- ❖ Copy of I.D or passport for Non South-African Citizens.
- ❖ Access to a laptop.

Instructor rating Course Delivery

Learning Style: Virtual/Classroom and Practical

The instructor rating course is delivered by means of using the following two ways,

- Online training
- In person training

2024 INSTRUCTOR RATING SCHEDULE

Contact Ntsu Drone academy to obtain instructor rating training course schedules as the course is presented on customer requests.



Instructor rating training Requirements:

During the instructor rating course you will be required to:

- Undergo theoretical training
- Present unmanned lectures (Briefings)
- Pass a Theoretical instructor exam.
- Undergo instructor practical training (Patter)
- Pass a competency check with a SACAA examiner.

Instructor rating competencies:

After completing your instructor rating course you will be able to:

- Plan and structure unmanned training lessons
- Present Accurate and Informative briefings
- Give proficient training instructions to new trainee pilots.
- Critique a trainee student based on their training performance.
- Demonstrate good airmanship skills and qualities.

Instructor rating training Syllabus:

Theoretical training:

- Theory of instruction
 - Techniques of applied instruction
 - The learning process
 - Elements of effective teaching
 - Student evaluation & training philosophies
 - Training programme development
 - Lesson planning
 - Classroom instructional techniques
 - Use of training aids
 - Human performance, threat and error management
- File preparation and techniques
 - Training programme development
 - Lesson planning

Practical training:

- Briefings
 - Long briefing
 - Air exercise Briefing
 - Post flight De- briefing
- Air exercise
 - Completing different UAS flight exercises



Instructor rating skills test:

The skills test consists of:

- A Ground briefing (Approximately 1 Hour - 1.5 Hours)
- A flight on a MR or FW (Approximately 30 minutes)
- A De-Brief (Approximately 20 Minutes)



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UAS FIXED-WING RATING COURSE



UAS FIXED WING RATING ADMISSION REQUIREMENTS 2024



UAS FIXED WING RATING COURSE:

Successful completion of the SACAA approved UAS fixed wing course allows a Remote pilot to safely fly and pilot a UAS Fixed wing aircraft.

Dear Student,

Thank you for choosing Ntsu Drone Academy to do your UAS Fixed - wing rating course.

Admin requirements:

The following documents are required from each student:

- ❖ Completed Student Information Form (Sent via email before the start of training)
- ❖ Copy of I.D or Passport for non South-African Citizens.
- ❖ Copy of matric certificate.
- ❖ Two I.D Photo's.
- ❖ Copy of class three Medical certificate.
- ❖ Copy of RPC (If RPC Holder).

UAS Fixed-wing rating Course Delivery

Learning Style: Virtual/Classroom and Practical

The UAS Fixed-wing rating course is delivered by means of using the following two ways,

- Online training (Theory training)
- In person training (Practical training)

2024 FIXED-WING RATING SCHEDULE

Contact Ntsu Drone academy to obtain UAS Fixed wing rating training course schedules as the course is presented on customer requests.



UAS Fixed-wing rating training:

Training consists of a combination of theoretical and practical training.

- Theoretical training:
 - Fixed wing theory
 - Fixed wing principles of flight (POF)
 - Fixed wing flight handling peculiarities
 - Fixed wing type technical examination
- Practical training:
 - Fixed wing operation & handling briefings
 - Fixed wing emergency training
 - Fixed wing flight exercises

UAS Fixed-wing rating skills test:

The UAS Fixed-wing competency-based training culminates with the undertaking of a sign-out process with a SACAA appointed designated remote examiner (DRE)

UAS Fixed-wing rating submission to the SACAA:

Once you have successfully completed your Fixed-wing skills test, NTSU will submit your documents to the SACAA for processing and license/Rating issuing. NTSU needs to submit your documents to the SACAA within 30 days of passing your Skills test.

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NTSU DRONE ACADEMY TERMS & CONDITIONS 2024

NTSU DRONE ACADEMY TERMS & CONDITIONS 2024



Introduction:

This document sets out the terms and conditions under which NTSU DRONE ACADEMY shall provide Ground and Flight school training to the Student at the Training Centre and the Charges due for such training.

Student responsibilities:

The Student shall ensure that they:

- Provide the required documentation to NTSU Drone academy as required.
- Attend training at the agreed and allocated time.
- Comply with NTSU DRONE ACADEMY's instructions whilst undergoing Training.
- Do not cause any damage to NTSU equipment or facilities.
- The Student must arrange at his own cost all hotel accommodation, transport, allowances and meals required.

Training fees:

- The Student shall pay to NTSU DRONE ACADEMY the fees as set out in the quotation and or invoice they were provided.
- A non refundable deposit shall be payable before commencement of the Services.
- Unless by prior arrangement the balance of Charges shall be payable in full before day one of ground school.
- Fees must be paid in full without set-off, withholding and/or counterclaim.
- No Remote Pilot Licence, certificate or rating issued after successful completion of any course, pilot logbook, or any other legal documentation shall be released to the Student until full payment of the fees..
- The Student shall pay to NTSU DRONE ACADEMY all applicable value added tax on receipt of a valid tax invoice.
- If the Student fails to make any payment on the due date, then, without prejudice to any other rights or remedies which NTSU DRONE ACADEMY may have at law, NTSU DRONE ACADEMY may suspend the Services.



NTSU DRONE ACADEMY TERMS & CONDITIONS 2024

- The Student agrees that NTSU DRONE ACADEMY will not be liable to him in terms of this document for any loss of profit or any direct or indirect or consequential damage of any nature, howsoever arising, whether directly or indirectly from NTSU DRONE ACADEMY's provision of the Services or from its performance, nonperformance or delayed performance of the Services to the Student.
- The Student shall pay to NTSU DRONE ACADEMY all Charges outstanding as at the date of termination of UAS Training.

Additional training fees:

Students will be responsible for the following additional UAS training fees:

- Class 3 aviation medical certificate and medical referral fees (If not included in quote)
- English language proficiency test (If not included in quote and paid for)
- RPC Submission fees (If not included in quote and paid for)
- Radio exam rewrite fees.
- Food, accommodation, Travel & Transport fees
- DRE fees for RPC skills test retake.
- Any other fees that was not specified or covered on the training quote and invoice.

UAS examinations:

- Students needs to be at the exam venue at least 30minutes before commencement of the applicable examination. Failure will result in the examination being canceled.
- The pass mark required to pass the applicable examinations is 75%.
- The rewrite after examination failure period is 7 Calender days.
- Students will be responsible for the costs involved in rewriting a specific examination after failure.
- Cancellation of examinations will require a **minimum period** of;
 - Radio examination 7 calender days and any other UAS examination 72 Hours
- Canceling an examination in less than the above minimum period will result in a standard charge.
- UAS Examinations can only be booked for Monday's, Wednesday's or Friday's.



NTSU DRONE ACADEMY TERMS & CONDITIONS 2024

UAS Practical training:

- Students need to complete the following before commencing UAS practical training:
 - Passed the necessary theoretical examinations.
 - Completed a Class 3 medical certificate.
 - Completed English language proficiency.
 - Completed radio telephony.
- Students needs to obtain a letter of recommendation (LOR) from a approved NTSU Drone instructor before being scheduled for the final RPC/BVLOS Skills test.
- A LOR will only be issued when a student meets the SACAA training standards.

NTSU Drone academy reserves the right to cancel a students training if it is found that the student is in breach of NTSU Drone academy training policies, procedures or found guilty of gross misconduct.



Official reseller



CONTACT US:

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