



Mid North
Christian
College



AVIATION STUDIES Course Outline 2023

COURSE AIM

The primary purpose of the Mid North Christian College Aviation Course is to give students an experience of the many facets within the aviation industry and to highlight different pathway opportunities into aviation as both a career, as well as a recreational pastime.

The course is run as a SACE Stage One, Intergrated Studies subject which enables students to gain Stage One credits towards their SACE. Students attend Mid North Christian College for a 1 week intensive per term, during their 11th year of schooling.

During these week-long intensives, students are exposed to a number of different and diverse learning areas and outcomes. The aim is not to create expertise; but rather provide an opportunity for students to find their strengths and passions within the broader field of aviation.

We are always developing the course to enable greater scope for those students who wish to pursue aviation as a career; maintaining content relevant to the current happenings within the aviation industry.



KEY LEARNING AREAS



Throughout the course, students will broadly cover four key areas:

1. Basic Aeronautical Knowledge: This component covers a wide variety of sub-topics generally including Principles of Flight, Flight Manoeuvres, Aircraft Engines, Engine & Aircraft Support Systems, Meteorology, Navigation, Aeronautical Radio and Human Factors (how we manage our human limitations with relation to aviation safety)



2. Aviation Engineering (fabrication and repair): This component gives students hands-on experience and skills development with various industry specific fabrication and restoration techniques. We currently cover a number of skills related to aluminium airframe fabrication, metal shaping, correct tool choice, work and safety procedures. Students also develop aviation riveting techniques following correct aeronautical engineering procedures, specifications and practices. We are also further developing working with composite materials as more and more airframes and components utilise these types of skills and materials.

3. Aviation industry and historical preservation: In this component we look at both restoration of a vintage Aero 45 which resides in the hangar at the College, as well as scheduled visits to the South Australian Aviation Museum and a number of industry facilities at Parafield Airport.

We also encourage students to attend local airshows. Some of our students will be actively involved in supportive ground tasks for the upcoming Jamestown Air Spectacular, held annually in October.



4. Practical Flight Training on 3 Axis and Drone Piloting:

This includes 4 hours of practical flight training towards the Recreational Aviation Australia Pilots Certificate. This is completed under instruction provided by Spencer Gulf Flight Training. This will be completed in an ultralight sport aircraft.

The use of drones in aviation is growing exponentially and our College has a number of DJI Mavic Pro drones. Students are trained in the basics following the Civil Aviation Safety Authority RePL (Remote Pilots Licence) curriculum.



SIR ROSS & SIR KEITH SMITH FUND

In 1986 Lady (Anita) Smith, widow of Sir Keith Smith, bequeathed her entire estate to the establishment of the Sir Ross & Sir Keith Smith Fund and directed that the income of the Fund be applied in perpetuity for “advancement in the State of South Australia of the Science of Aeronautics and of education therein”. A specialist Advisory Committee provides continuing guidance to the trustee to ensure that the objectives of the Fund are being achieved.

Since 2005 the Sir Ross and Sir Keith Smith Fund (Smith Fund) has provided sponsorship funding to Mid North Christian College for the development of an Aviation Pathways Program. Secondary students from the College and other schools around South Australia participate in the Aviation Course which incorporates Aviation Engineering, Flight Training (subject to weather constraints) and studying Basic Aeronautical Knowledge.



The Smith Fund have provided ongoing support for 18 years which has allowed many students from around South Australia to gain experience in the industry as well as launching their Aviation careers. Several alumni have continued on to follow careers ranging from service in the Royal Australian Air force, further study at Oxford University’s Aerospace Engineering course, farming, as well as recreational pursuits. The Mid North Christian College Aviation Committee continue to be caretakers in providing a dynamic and broad Aviation Course that follows the real-world developments in the aviation industry. Under God’s guidance we will continue to support students through our Aviation Course in their journey as it relates to the aviation industry in South Australia and beyond.



The Sir Ross & Sir Keith Smith Fund

Selection Criteria

Students are offered a place in this course based on their interest in the Aviation industry as well as their academic character as described on their most recent school report card. During the application process, we will require a teacher reference speaking to the student's academic attitude. Preference is given to those entering Year 11. Applicants going into Year 10 are offered any remaining spaces and then placed on a waiting list for their eleventh year.

Billeting

The number of places available for external students is limited by the number of billet opportunities we have in our College community. We have several wonderful families that have been hosting students for their Aviation intensives over many years and we maintain the safe housing of external students meticulously. To alleviate the limitation of places available in the course, we welcome the option for your child to stay privately with friends or family in the Mid North region.

Excursions and Networking

RAAF, Bader Aero, SAAM, Helistar and AeroStar, Aeroservice, Aviation Engines, MAF.

Part of our aim to provide a broad experience of the aviation industry also includes networking and seeing real-world aviation businesses in action. The students will have the opportunity to meet the operators of these businesses and pursue further study with them directly if the work they observe really appeals to them.

The 2024 contact time for the Aviation Intensive weeks will be Week 3 of each term. 8:00 A.M. until 4:30 P.M. with a 30 Minute Break for lunch in the middle of the day and rest pauses offered throughout.

Term 1 Week 3: Monday, 12 February to Friday, 16 February

Term 2 Week 3: Monday, 13 May to Friday, 17 May

Term 3 Week 3: Monday, 5 August to Friday, 9 August

Term 4 Week 3: Monday, 28 October to Friday, 1 November



The businesses and organisations that have partnered with our Aviation course include:

- The Royal Australia Air force (Edinburgh Base),
- The Royal Australia Air force (Women in Aviation),
- The South Australian Aviation Museum,
- Uni SA (Mawson Lakes campus),
- Bader Aero (Electric Aircraft Manufacturer),
- A visit from Ministry Aviation Fellowship Australia (MAF),

As well as a number of workshops and hangars within the Para-field Airport which include

- Aviation Engines (General Aviation engine service and repair),
- Aerostar (offer a TAFE course for Commercial Pilot Training in fixed wing and rotary aircraft)
- HeliStar (service and repair workshop of turbine engines and airframes of fixed wing and rotary aircraft)
- AeroService (service and repair of General Aviation aircraft airframes)
- AeroTech (Hangar and workshop servicing the SES Air-fleet).
- These businesses and organisations welcome our students preferentially for work experience and apprenticeship opportunities.

Pathways connected to the Mid North Christian College Aviation Course

