AUSTRALIAN SCIENCE AND MATHEMATICS SCHOOL

AVIATION STUDIES STAGE 2 2013

Australian Science and Mathematics School
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AUSTRALIAN SCIENCE & MATHEMATICS SCHOOL
Government of South Australia
Department for Education and Child Development
Flinders UNIVERSITY

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AVIATION STUDIES 2013 (STAGE 2)

WHAT'S IT ALL ABOUT?

The Australian Science and Mathematics School is the only secondary school in SA formally offering Aviation as a Stage 2 program. It is a recognised SACE 20 credit subject that attracts a university entrance score (ATAR).

The program has evolved and developed over the last few years through teacher, student and industry interest together with a grant from the Federal Government's Trade Training Centre initiative. The grant has enabled the ASMS to develop a first class teaching and learning facility for aviation which includes industry standard Synthetic Flight Trainers (commonly referred to as 'Flight Simulators'). The aviation resource centre has been described as the most impressive in the Asia-Pacific region.

The program, delivered by qualified teachers and pilots, is principally involved with flight operations and is a powerful combination of simple mathematics, physics, physiology, psychology, geography and literacy.
Students should be confident with essential mathematics and physics.

The teaching program has 2 compulsory sessions of two hours each per week. It is expected that at least one of these will be outside of regular school hours.
Students will be required to undertake at least an equal amount of regular time on homework to consolidate class work. Without this commitment students will struggle to maintain satisfactory progress.

WHAT CONTENT WILL BE COVERED?

The program is principally concerned with flying operations.
The theory covered is that required by the Civil Aviation Safety Authority's (CASA) 'Basic Aeronautical Knowledge' syllabus. Practical work (flight operations) utilises PC hardware and software together with our industry standard Synthetic Flight Trainers (flight simulators).

Topics Covered:

- Aviation terminology, units and charts
- Aircraft engines and systems
- Navigation
- Meteorology
- Flight planning
- Aerodynamics
- Performance and operation
- Human factors
- Aviation law and regulations
- Theory and practices of flight

WHERE WILL THIS COURSE TAKE ME?

If you ever decide to learn to fly and attend a recognised flying school, you'll have to pass a theory 'Basic Aeronautical Knowledge' examination based on CASA's syllabus before you can proceed to solo flying. **The ASMS program** covers the elements of this theory examination and is complemented with access to an impressive range of PC hardware and software. Your flying experiences will conducted on industry certified Synthetic Flight Trainers (simulators).

HOW WILL THE COURSE BE ASSESSED?

The program is offered as a SACE Stage 2 Scientific Studies subject (20 credits and ATAR).

School assessment will be 70% with a range of Investigation, Practical and Application tasks. The external component of 30% will be the submission of an individual Practical Investigation (no examination involved).

Since the Aviation Industry utilises 'competency based assessment' for its aviation programs the ASMS program will therefore include several 'formative' competency based assessment tasks.

WHAT RESOURCES ARE USED?

Our state-of-the-art Synthetic Flight Trainer (SFT) supports the flight operation components. The SFT can 'simulate' 4 different aircraft. The two principal aircraft used in this course are the King Air B200 and the Cessna 172S G1000.
Access to the SFT will be at no cost to enrolled students (approximately 20-30 hours per student)
Extensive use is also made of dedicated computer hardware and software. This includes navigation and GPS simulators flight planning software and Microsoft Flight Simular X.
An industry standard wind tunnel is available for aerodynamics experiments.

WHAT WILL IT COST?

Enrolled students are required to purchase some resources. These include a text book, flight computer (CR3), protractor, ERSA and various charts. In 2013 these will cost $275 and students can keep these resources when they conclude the course. Students enrolled from other schools will be required to pay a 'school service' fee of $180 for 2013.
Access to the Synthetic Flight Trainer is at no cost whilst enrolled in the course.

WHERE CAN I GET MORE INFORMATION?

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AUSTRALIAN SCIENCE AND MATHEMATICS SCHOOL

STAGE 2 AVIATION STUDIES 2013

EXPRESSION OF INTEREST
NON-ASMS STUDENTS

Student Name: ..... Date of Birth: .....

Current School: ..... Year Level: .....

Contact Phone: ..... Email: .....

Parent/Caregiver Name: ..... Contact Phone: .....

Most Recent Mathematics and Science Results: .....

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Explain briefly why you would like to undertake this program: .....

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Character Referee Name: .....

Contact Phone: ..... Email: .....

I understand a non-refundable school services fee of $180 and a student resource cost of $275 is applicable upon acceptance into the 2013 Program. (do not send any money with this application)

Signed:

Student: ..... Parent/Caregiver: .....

Date: ..... Date: .....

Please Forward Form to

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