

The logo for Varsity College, featuring the word "VARSITY" in a bold, white, serif font above the word "College" in a white, cursive script font. The background is a dark blue gradient with a curved top edge and a yellow triangular shape in the upper right corner.

VARSITY
College

Aspire ACADEMIC

ACADEMY OF MATHS AND SCIENCE HANDBOOK

History and Rationale

“Collaboration, Innovation, Achievement”

The Aspire Academy of Mathematics and Science (Aspire AMS) at Varsity College was created to give like-minded students with similar passions the opportunity to collaborate in the areas of Mathematics and Science. Specific extra-curricular opportunities were embedded in the development of the AMS Program to allow interested students to broaden and enhance their experiences through curriculum enrichment activities, excursions, nationally recognised competitions, and partnerships with universities and professionals in the fields of Mathematics and Science.

Aspire AMS focuses on academic excellence, leadership, entrepreneurial thinking and encouraging the development of values that will apply to all aspects of life beyond school. Through innovation and collaboration, the AMS aims to provide each student with a pathway to excel in their academic journey at school and beyond.

Goals and Purpose

The AMS offers students a unique and innovative curriculum that focuses on enriching and enhancing student learning through application, problem solving, critical thinking, and real-world experiences.

What will the Aspire AMS program offer my child?

- Opportunities to work in a collaborative culture with other high achieving students who have a similar passion for learning in the Mathematics and Science fields.
- The chance to make early links with universities and provide industry experience linked to their performance and future pathway.
- Deeper and richer access to the Australian Curriculum with emphasis on developing higher order thinking skills.
- Inspiring extra-curricular activities which engage students and broaden their thinking.
- Access to National and Regional competitions which can provide further opportunities with external STEM bodies and are highly recognised by employers and universities.

Varsity College has unique, modern, fully equipped facilities to accommodate all programs and students. The staff are experienced, enthusiastic and dedicated to the development of the AMS program and the successful outcomes of the individual students.

Key Personnel

Head of Department – Mathematics

Alison Lees – axlee6@eq.edu.au

Alison is an experienced practitioner and advocator for academic programs which develop both depth of understanding and critical thinking skills in the subject area of Mathematics. Combining both in-depth knowledge of the Senior Mathematics subjects and a globally spanning teaching history, Alison enhances the AMS programs with the goal of sharing her love of Mathematics with students to inspire them to become lifelong learners in this critical subject area.

Head of Department – Science

Krystle Kuipers – kkuip4@eq.edu.au

Krystle has a strong background and fascination of all things Science and STEM. A drive to develop AMS students' academic passion and curiosity has been built from a rich background in teaching Chemistry and Biology. Krystle uses her breadth of experience in past STEM careers to support the "holistic" academic identity of AMS students. She firmly believes that academic, behavioral, and cultural enrichment combine to create successful 21st century learners.

AMS Co-ordinator

Jasmine Foster – AspireAMS@varsitycollege.eq.edu.au

Jasmine is responsible for leading our program, coordinating events, activities, excursions, and the administration of the AMS. She is an experienced and dedicated teacher who has taught both Junior and Senior Secondary Science. Jasmine has been involved in excellence programs for a number of years and loves developing learning experiences that both engage and challenge students, deepening their understanding of the curriculum and equipping students with leadership skills for the 21st Century.

Program Overview

The Aspire AMS Program ensures that the full extent of the core curriculum is explored by students to a more comprehensive level than is usually possible. A high expectations class environment with increased learning pace allows time for lateral extension of topics. This broadens student experiences and depth of understanding in both Mathematics and Science. Students are encouraged to work collaboratively and present their findings in a safe and mentally nourishing environment. The program offers opportunities for students to participate in competitions as well as experience Mathematics and Science in real-life contexts through curriculum specific excursions and hands-on activities. The aim of the AMS Program is to develop well-balanced students who possess clear goals for their futures and the drive and capabilities to reach their personal potential.

Students in the AMS will have opportunities throughout the year to enter and participate in events and competitions. These may include but are not limited to:

- Computational Algorithmic Thinking Competition (CAT)
- Australian Mathematics Competition (AMC)
- The Big Science Competition
- International Competitions and Assessments for Schools Science Competition
- Griffith University Science Trivia Challenge and other STEM events including the Science and Engineering Challenge.

Partnerships and Industry Links

The AMS prides itself on forming and maintaining partnerships with a number of local universities. Having access to a variety of campuses ensures AMS students can access a range of programs, professionals and staff that will best suit their needs, chosen pathway and interests. These partnerships will provide students with a range of high-end skills that will support their needs as they transition into more rigorous senior schooling pathways and prepare them for tertiary education.

Student Selection Criteria

Successful applicants for the Aspire AMS Program will need to:

- complete and submit Aspire Application Form (entrance to year 7 only);
- demonstrate an **A** achievement grade in mathematics or science and no less than a **B** achievement grade in the other;
- demonstrate a high band in NAPLAN Numeracy;
- demonstrate a very high standard of behavior and effort across all subject areas;
- demonstrate very high levels of school attendance; and
- achieve excellent grades in the Aspire Academy of Mathematics and Science entrance exam.

Aspire AMS Application Process and Entrance Exam

Year 6 into Year 7

Year 6 applicants will apply through the enrollments process led by our enrollments team. All applicants will then sit the Aspire Academic entrance exam. The exam is for all Aspire academic applicants (AMS and ESSA) and is comprised of a literacy component and a numeracy component, lasting two hours in total. No specific study is required for this exam, it will assess expected skills for the relevant age group.

Year 8 and Year 9

At the conclusion of year 7 and 8, all students are required to reapply for the program in the following year. The top students from core classes will also be invited to test for the program for the following year. All current AMS students will sit the relevant entrance exam during one of their timetabled maths or science classes, and all other applicants will sit during a scheduled exam session which will be communicated to families in Term 3.

The entrance exam focuses on problem solving and critical thinking, and can draw on any content that students have learnt in the year leading up to the exam. No specific study is required, but students should be familiar with the content from Terms 1-3 in mathematics and science.

Year 10 Aspire Mathematical Methods and Aspire Science

At the year 9 into 10 juncture students move into elective subjects leading into their senior studies in years 11 and 12. Aspire AMS is offered in some mathematics and science based subjects. These programs are by invitation only and will be based on the student's academic levels of achievement in year 9 mathematics and science.

Upon completion of the selection process for all year levels, the Heads of Department for Maths and Science and the Aspire AMS Coordinator will decide on the suitability of each applicant. Successful applicants will be notified by the school and the school's decision will be final.

Expectations and Commitment to Program Requirements

The Aspire Programs are committed to providing and maintaining a high performing and supportive learning environment for all their students. Being a part of the Aspire Programs is a privilege, and students involved in the programs must value and respect their placement. To this end, Aspire students will endeavour to perform at the highest level across the global Aspire performance areas:

Academic (classroom and extra-curricular)

- As part of an Aspire AMS class, students must maintain high academic standards. This is considered at least a 'B' grade across both Mathematics and Science.
- Maintain no lower than a 'C' grade in all other subjects.
- Submit all assessment, completed and by the due date.

Behavior and Effort

- Maintain a very high standard of behaviour and effort across all subject areas.
- Respect teachers and fellow students at all times.
- Be punctual and prepared for all lessons.
- Display high levels of appropriate behaviour at all times, not only during Aspire lessons, but with all Varsity College staff (teaching and corporate services), contract and supply teachers.

Culture

- Students understand they bear responsibility as an ambassador of the Aspire Programs to be seen as a positive role model to others within the local community.
- Maintain a high level of school attendance in order to maintain learning standards.
- Active participation in competitions, events, activities and excursions related to the Aspire Programs.
- Maintain high uniform standards in line with the Varsity College Appearance Policy.
- Be accepting and tolerant of all students.
- Show modesty and humility when interacting with students.

Upon acceptance of a position in an Aspire Program, students and parents will demonstrate a commitment to the Expectations and Commitment to Program Requirements by signing and returning the Student / Parent Agreement (Appendix 1).

Maintenance of Position in Program

Aspire Programs operate a formal review process at the end of each term for students who consistently are not meeting Global Aspire Performance Areas as outlined in the Expectations and Commitment to Program Requirements. Grounds for review may include:

- Consistent lateness.
- Truancy, repeated detentions, after school detentions, suspension.
- Failure to submit assessment on a regular basis (monitoring and due dates).
- Failure to meet academic, behaviour and effort standards as outlined in the Expectations and Commitment to Program Requirements.
- Failure to meet the financial commitment of Aspire Program.

The Aspire Review Process for students consistently not meeting expectations is completed at the end of the term. The following procedures are then implemented:

- These students and their parents contacted by either the Aspire AMS Coordinator or the Head of Department where expectations of the program will be discussed. Specific targets will be identified, and it is the student's responsibility to meet these.
- The student will be placed on probation for the following term. If students fail to meet their targets throughout this period, their enrolment in the program will be cancelled, and they will be placed in a mainstream class for the remainder of the year.

Specific Application Process for Year 7

The Varsity College Aspire Program applicants are required to:

- Complete the online Aspire Program Application which can be found on the Varsity College website.
- Upload all required documentation as required and submit by the closing date.

Please note that incomplete applications will not be accepted.

- All Applications must be received no later than **18th March 2024**.
- You will receive further correspondence about testing dates and times once your application has been received and processed.

Upon completion of the selection process for all year levels, the Heads of Department for Maths and Science and the Aspire AMS Coordinator will decide on the suitability of each applicant. Successful applicants will be notified by the school and the school's decision will be final.

APPENDIX 1: Student Parent Agreement

Student Agreement

I understand the purpose of the Aspire Program is to select and retain the most highly motivated and knowledgeable students who will maintain the level of commitment, dedication and interest necessary to successfully achieve quality learning outcomes in their program of study.

The Aspire Program will create and maintain a learning environment of like-minded students that will support me in achieving my personal and academic goals in my program of study.

1. In all areas of college life, I understand that I bear responsibility as an ambassador of the Aspire Program to be seen as a positive role model to others within the local community.
2. I will endeavour to perform at the highest level across the Global Aspire Performance Areas.
3. I will demonstrate grit and determination as I strive towards my goals with the support of my parents.
4. If I do not adhere to the standards of the Aspire Program I understand that I may be removed from the program and forfeit my entrance fees.

I would like to accept my position to be a part of the Varsity College Aspire Program in 2025. I am aware that by accepting a place, I will agree to adhere to the Aspire Expectations and Commitment to Program Requirements and uphold the values and expectations therein.

Parent Agreement

I understand that the purpose of the Aspire Program is to provide my child with a learning environment that supports and facilitates quality learning outcomes in their program of study. I also understand an aim of the Aspire Program is to ensure that I, as a parent, am supportive of both my child in the program and of Varsity College.

I will, as much as possible, assist my child in maintaining a high level of commitment in order to successfully achieve quality learning outcomes in their program of study.

I will commit to the following:

- Assist my child in maintaining a high level of attendance in order to maintain learning standards.
- Actively encourage my child to maintain high standards in all subject areas.
- Provide support to my child and the college in adhering to Varsity College policies and procedures.
- Monitor the completion of homework set.
- Where possible and convenient attend Parent Teacher Interview Evenings
- Maintain open lines of communication with the college to ensure success for my child.
- Meet all financial commitments as outlined during the application process (please note all Aspire fees are non-refundable)

Signed: _____
(Parent)

(Student)