



ASPIRE ROBOTICS
PROGRAM HANDBOOK

History and Rationale

The ASPIRE Robotics program is a new initiative from Varsity College focusing on digital technologies. With a specific emphasis on robotics and virtual reality (VR), education in digital technologies is paramount in preparing individuals for the future landscape of work and innovation. Virtual reality enables immersive learning experiences, allowing students to explore concepts in fields like medicine, engineering, and design in a realistic virtual environment.

Similarly, robotics education fosters crucial skills in programming, problem-solving, and collaboration, essential for navigating the increasingly automated world. By integrating these technologies into education, students not only gain technical proficiency but also develop creativity, adaptability, and critical thinking skills necessary for success in the digital age. The ASPIRE Robotics' students will also participate in local, national and international competitions, competing on a global scale in STEM initiatives.

Goals and Purpose

The ASPIRE Digital Technologies 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.

- Opportunities to work in a collaborative culture with other high achieving students who have a similar passion for learning Digital Technologies 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 Local, 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 Digital Technologies and the successful outcomes of the individual students.

Key Personnel

Head of Department | Practical Arts

David Jones - djone240@eq.edu.au

David is an experienced practitioner and advocator for academic programs which develop both depth of understanding and critical thinking skills in the subject area of Engineering. Combining both theoretical and practical applications as the Head of Department for the Practical Arts, he has been an avid supporter of digital technologies with a keen interest in F1 Racing, robotics and STEM related education.

ASPIRE Robotics Coordinator

Rhonda Mackie - rmack84@eq.edu.au

Rhonda is a dedicated and passionate teacher of Digital Technologies and Aspire Robotics on the primary campus. She plays a crucial role in preparing students for a future where technology and robotics are integral. Rhonda is committed to equipping her students with essential skills for the future, particularly in robotics. Her classes ignite curiosity and foster a love for learning.

The Aspire Robotics class, mentored by Rhonda, offers students a chance to explore robotics. Through hands-on projects, students learn programming, engineering, and teamwork. Robotics in the curriculum promote critical thinking, creativity, and collaboration.

Over the past two years, Rhonda's students have excelled in various competitions, including the First Lego League and Vex. They have won awards for Robot Engineering, teamwork, and the prestigious First Lego League Core Values Award, reflecting their dedication and Rhonda's exceptional mentorship.

Last year, the team qualified fourth at the Regional Championships, earning the Breakthrough Award. They also excelled at Nationals, receiving the same award. This year, the team will compete in the Asia Pacific Open Championships in Sydney, representing the school on an international stage.

for our Aspire students such as workshops, excursions/incursions and competitions.

Program Overview

The ASPIRE Digital Technologies Program, is designed to cultivate the next generation of innovators and problem solvers in line with the Australian Curriculum for Digital Technologies. Our program offers a comprehensive exploration of digital technologies, with a specific focus on virtual reality (VR) and robotics. Students will delve into foundational concepts such as computational thinking, coding, and digital systems, empowering them to understand and harness the power of technology.

Throughout the program, students will engage in hands-on learning experiences, utilizing cutting-edge VR technology to immerse themselves in virtual worlds and explore complex concepts in an interactive and engaging manner. They will also have the opportunity to design, build, and program robots, honing their skills in problem-solving, teamwork, and creative thinking.

Moreover, our program is deeply connected to local, regional, and national competitions, providing students with opportunities to showcase their skills, creativity, and innovation on a broader stage. By participating in these competitions, students will not only gain valuable experience but also develop confidence and resilience in the face of challenges.

Our goal is to equip our students with the knowledge, skills, and mindset necessary to thrive in emerging careers in the digital age. Through our innovative and hands-on approach to digital technologies education, we aim to inspire a passion for innovation and empower students to become leaders in the rapidly evolving field of technology.

Extra-Curricular Opportunities

Entry into the Queensland ROBOcup Competition

<https://www.robocupjunior.org.au/challenge-regions/qld/qld-events/>

Entry into the regional VEX IQ Competition

<https://www.vexrobotics.com/iq/competition/viqc-current-game>

Entry into the regional First Lego League (FLL) regional Competition

<https://www.firstaustralia.org/firstlego-league>

Student Selection Criteria

Successful applicants for the ASPIRE Digital Technologies 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 Digital Technologies entrance exam.

Expectations and Commitment to Program Requirements

The ASPIRE Program is committed to providing and maintaining a high performing and supportive learning environment for all its students. Being a part of the ASPIRE Program is a privilege, and students involved in the program 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)

- Maintain high academic standards. This is considered a 'B' grade across all relevant ASPIRE subjects.
- Maintain no lower than a 'C' grade in all other subjects.
- Submit all assessment, completed and by the due date.

Behaviour 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.

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:

- The students and their parents are contacted by either the ASPIRE 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.

Application Process

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 **the close date advertised on our platforms.**
- You will receive further correspondence about testing dates and times once your application has been received and processed.

Upon completion of the application process, staff and specialist teachers 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.
- 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)