



Columba College: STEM Blues

GENERAL CRITERIA

Following are the general criteria for the award of STEM (Science, Technology, Engineering, Mathematics) Blues. Each area has, however, specific guidelines which are to be considered in conjunction with the general criteria. The STEM Blues committee will meet to consider applications and submissions so that there is co-ordination and fairness in the awarding of the Blues and to ensure a high standard is maintained.

- STEM Blues can be awarded for the areas of Science, Technology and Engineering, and Mathematics outside the taught curriculum.
- Students in Years 9 to 13 may be awarded STEM Blues.
- To be eligible for an STEM Blue, a student must have achieved one or more/one exceptional success.
- Over a period of time, successes in more than one STEM area can be accrued
- Achievements must be at a level of distinction in public, or in local or national competition against senior students in other schools and be judged to be of a standard equivalent to that of the best students in a large secondary school. The student must be considered good enough to hold their own in top level secondary school competition.
- STEM Blues awards will recognise **outstanding** achievement or performance. The recipients will have demonstrated exceptional ability in their chosen fields/achieved **at the level of distinction or with major success**, for example, in a significant event or in competition with other schools. Other considerations will also be taken into account as appropriate, such as:
 - The contribution of the individual to a STEM group within the College over an extended period of time which would *not normally be less than three years*
 - The advanced level of performance which has been beneficial to the group and has brought honour to the group and to the College
 - Students should be **exemplary** in their commitment, enthusiasm, dedication, reliability and sustained participation in the STEM area for which the Blue is awarded.

STEM Blues will be awarded at a STEM assembly
2022 Applications are DUE 9 am Monday, 29th August.
Late applications cannot be considered.

STEM Blues Committee:

This will comprise the Head of Schools, Head of Senior School, Head of Middle School, Head of Science, Head of Mathematics, Head of Biology, Head of Chemistry, Head of Physics and TIC Technology. Other teachers involved in STEM may be invited to join the committee.

NOMINATIONS AND APPLICATIONS FOR STEM BLUES

Nominations for STEM Blues may be submitted by any student, staff member or adult in charge of a team or group. Full details supporting the nomination must be supplied in writing for the consideration of the Committee. All information relevant to the award must be supplied at the time of nomination.

Nominations should be submitted to Mrs Harris. Please ensure that you print your application and supporting documentation and hand it in at the office in a folder/envelope clearly marked 'STEM BLUES NOMINATION'. Applications are due **9 am Monday, 29th August**. Late applications cannot be considered.

GUIDELINES:

Following, are the guidelines that will be considered by the STEM Blues Committee when deciding on awards. *Please note that achieving only one criterion may not be regarded as sufficient by the STEM Blues Committee to justify the award of an STEM Blue. **More typically, two or more of the criteria would need to be met.*** Applicants are advised to read these guidelines carefully when writing their applications. **If applicants have evidence of achievements in competition or events beyond those listed here, they should submit this with clear explanation.**

GENERAL:

- High achievement in the Tournament of Minds STEM category (National/International place getter)
- Placement in the Immerse Education Oxford & Cambridge Summer School essay competition – STEM topics

SCIENCE:

- Recognition at a high level at the OSTA Science Fair
 - Received an Aurora Energy Science and Technology Fair Premier Award:
 - Aurora Energy Ltd Premier Best in Fair
 - New Zealand Oil & Gas Premier Promising Young Scientists
 - Dairy NZ Premier Promising Senior Scientists
 - Otago Science Teachers Association Premier General Excellence
 - Otago Institute Premier General Excellence

- University of Otago Promotion of Science Committee Premier Clear, Concise Science
 - NZ Marine Studies Centre Premier Future Scientist Award Marine Science Extension and Enrichment Programme
 - NIWA Premier Water and/or Atmosphere
 - The Centre for Sustainability University of Otago Premier Sustainability Prize
- Distinction in ICAS Science
- Gained a CREST (Creativity in Science and Technology) award for a scientific study
 - Bronze
 - Silver
 - Gold
- Succeeded in the NZIBO Biology Olympiad
 - Received a Bronze Certificate in the National Entrance Examination and invited to participate in the online tutorial programme
 - Selected for the Practical training camp in the Training Camp Selection Examination
 - Selected for the NZ Biology Olympiad team
- Succeeded in the NZChO Chemistry Olympiad
 - Succeeded in the written exam and chosen for problem based assignments
 - Succeeded in the second written exam and invited to participate in the training camp
 - Succeeded in the practical and theory exam at the training camp and chosen to represent NZ at the International competition
- Selected to attend Powering Potential
- Performed at a high level at Kiwi Science
- Selected to attend the Rotary National Science and Technology Forum
- Performed at a high level at the University of Otago Senior Science Quiz
- Participation in the NZYPT (New Zealand Young Physicists Tournament) and/or selection to compete in the NZ team at the International Tournament
- Achieved a Gold Science Badge
- Selected to attend a Hands On Otago University programme in a Science subject
- Selection to attend the MacDiarmid Institute's NanoCamp
- Sustained participation in the Healthy Harbour Watchers programme
- Received a NZQA Scholarship for a Science subject
- Has contributed to raising the profile of science in the school and has encouraged the participation of others - this includes sustained attendance of GATE Science and other extracurricular high level science involvement
- Placed in other local, regional, national or international science competitions
- Selection for the University of Otago Astronomy Camp

TECHNOLOGY AND ENGINEERING:

- Performed at a high level in the NZ Robocup competition in the categories of Junior and Senior Rescue, Theatre and Soccer, in the Regional and/or National competition

- Succeeded in the Techgirls App Design Competition - placed in New Zealand or received a specific award
- Gained a CREST (Creativity in Science and Technology) award for a technology project
 - Bronze
 - Silver
 - Gold
- Has contributed to raising the profile of technology in the school and has encouraged the participation of others - this includes sustained extracurricular high level technology involvement
- Placed in other local, regional, national or international technology competitions

MATHEMATICS:

- Performed at a high level in the Australian Mathematics Competition:
 - Medal Recipient
 - Cheryl Praeger Medal only for High School students
 - Peter O'Halloran Award
 - AMC Best in State
 - AMT High Achiever
 - Prize Winner
 - High Distinction
 - Distinction
 - Best in School
- Distinction in ICAS Maths
- Performed at a high level in the Junior Mathematics Competition of the University of Otago:
 - First, second or third place
 - Outstanding award
 - Certificate for a Top 100 or Top 200 placing
 - Certificate of Merit
- Performed at a high level in Year 7 and 8 Intermediate Problem Challenge:
 - First, second or third prize
 - Distinction
- Performed at a high level in Otago Mathematics Association O'Mathalon
 - Top 3 Placing
- Has contributed to raising the profile of mathematics in the school and has encouraged the participation of others - this includes sustained extracurricular high level mathematic involvement
- Placed in other local, regional, national or international mathematics competitions.