



Memberships Package

STEM  Fellowship

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STEM Fellowship Mission Statement

STEM Fellowship is a student-run, non-profit organization that connects and empowers young innovators. We believe in the capabilities of youth, and cultivate their potential by fostering a community of driven, like-minded individuals engaging in scholarly discussion and research. We thereby enable students to learn collaboratively, express their passion and love for science, and expand the scope of human knowledge through scientific, multidisciplinary inquiry.

Since its initiation in 2015, STEM Fellowship has instantiated student-driven experiential learning and mentorship in STEM, providing students with indispensable skills in both STEM research and education. STEM Fellowship aims to provide:

- A place for students to develop their ideas and discuss them with experts,
- An opportunity for peer-review and scholarly publications of high school and university students' research
- A virtual meeting place for advanced STEM learning and Data Science education
- A new philosophy for student-driven learning in STEM with the provision of tools that help students currently involved in STEM education and research communities

STEM Fellowship Memberships Program

Through the memberships program, individuals and institutions have the opportunity to become STEM Fellows and STEM Fellowship Associated Schools, respectively. These memberships connect members with numerous young innovators and next generation researchers across Canada. The STEM Fellowship member network enables members to interact with those of similar values and ambitions in STEM as well as accelerate their academic achievements.

An *institutional membership* will provide students with unique STEM-oriented learning and application skills through various mediums, both inside and outside of the classroom. An individual membership will enable student access to, and participation in various STEM Fellowship events, challenges, and programs.

Depending on their specific designation under STEM Fellowship's Memberships Program (outlined specifically in the following pages), members will have exclusive access to:

- pertinent materials
- webinars & workshops
- competitions (Big Data Challenge, Canadian Youth Physicists' Tournament)
- connections to experts in data science and scholarly writing industries
- a robust peer-mentorship network
- internship opportunities

Many of these listed resources will be provided from the following subcommittees of STEM Fellowship: Data Science Education, Scholarly Writing & Communication, Canadian Youth Physicists' Tournament (CaYPT), and STEMpowerment. As a member, students will also be able to foster professionalism in their communication and writing, and cultivate strong leadership and personable skills.

Being one of the newest program additions to STEM Fellowship's existing initiatives and programs, this Memberships Program not only aims to equip future generations with elevated knowledge and skills in STEM but it encourages members to instantiate a community that values the importance of fostering a new philosophy for student-driven experiential learning.

If any institutions such as universities or corporations would like to become affiliated with STEM Fellowship, the options of forming a partnership (MoU) or a sponsorship relation are available. For further information, please contact the following accordingly:

For sponsorship opportunities, please contact Sponsorships Team Lead, Michelle Pakulski: michelle.pakulski@stemfellowship.org

For partnership opportunities, please contact Partnerships Team Lead, Vicky Chang: vicky.chang@stemfellowship.org

For any institution that does not fill the eligibility criteria to establish a partnership, sponsorship, or an institutional membership but would still like to become affiliated with STEM Fellowship, please contact the memberships committee for further information and negotiation.

Becoming a STEM Fellow

Cost: \$15

An **individual membership** certifies an individual as a **STEM Fellow**, allowing one to partake in the STEM Fellowship community of next generation researchers and digital learners. This designation comes with access and opportunity to participate and contribute to contests, workshops, peer-mentorship network, and internship programs.

- Interaction with STEM Fellows, branch-specific committees, and overall executive body
- Network via. member-only Slack forum and online memberships platform, Kynplex
 - One's interaction may entail: peer mentorship, exploring career options and students' passion, redirection to resources, tools, and STEM Fellowship programs, volunteer opportunities
- Special invitations to, and discounts on, STEM Fellowship academic challenges, competitions, and workshops
 - Members will receive discounts for events hosted at universities, and resources for each workshop (eg. access to filmed videos of workshops)
 - *Note: Discount prices are variable across different institutions. For specific information on discount pricing, please contact your respective institution for further detail*
- Subscription to STEM Fellowship Journal where members will be automatically notified of new publications, and will have the opportunity to interact with the Student Editorial Board (SEB)
 - Interacting with SEB includes; mentorship and support in exploring academic passions, developing scholarly writing skills, and expanding students' experience with peer-reviewed publications
- Bi-weekly newsletters with news and information on upcoming competitions, mentorship/internship programs, and more
- Opportunity to be featured in STEM Fellowship Social Media platforms
 - Social media platforms include: Facebook, Twitter, LinkedIn, Instagram, and Snapchat
- Scheduled members-only regional events to discuss upcoming opportunities (eg. research, mentorship)

Data Science Education

The Data Science Education program aims to equip students with data analysis skills and developing the abilities to; translate data into abstract concepts and engage in data-based reasoning, create solutions even with limited information, examine and filter data to produce successful solutions, and lastly, collaborate efficiently to construct solutions, all through a team-based project.

- Members partaking in the *Big Data Challenge* will be exclusively invited to ongoing workshops and taught how to use the following tools by sponsors and the STEM Fellowship Data Science Education Team:
 - R programming, Python, SAS, and IBM Data Science Experience

- Members will also learn and interact with leaders in industry and academia from the following:
 - Data Science experts such as Digital Science, SAS, IBM Big Data University, Microsoft Azure
 - Collaborative Writing and Publishing experts such as Overleaf, and Altmetric

Scholarly Writing Workshops

The Scholarly Writing Workshops, offered at multiple Canadian universities, will allow attendees to learn more about scientific writing, editing and the publication process.

- Learning experience will be complemented with relevant digital tools and hands-on exercises alongside developing a strong understanding of the topic
- The following workshops for students are available:
 1. *Introduction To Scholarly Writing: How To Write A Paper To Be Noticed:* attendees will be taught the features of a strong piece of scholarly writing, what should be included in each component (Title, Abstract, Introduction, Results, Discussion) and especially, how workshop attendees can apply these elements to make their own writing stronger
 - Students will also receive information and resources on how to get student work published in a peer-reviewed journal
 2. *Editing 101: Learn To Be Your Own Editor:* attendees will learn strategies to edit for flow, clarity, grammar and conciseness, through a series of hands-on exercises
 - Students will also receive training for being a student editor in a peer-reviewed journal, and will be certified by Canadian Science Publishing
- Members will also receive access to workshops in a webinar format
- Upcoming workshops will explore **peer-reviewed research**, and finding **research opportunities**

STEMpowerment Program

*This program aims to cultivate student talent and innovation in STEM fields by specifically focusing on providing free academic support and peer counselling for youth from communities traditionally underrepresented in STEM fields. STEM Fellowship has therefore established the **Internship** and **Mentorship Programs**, detailed below: Note: The STEMpowerment Program is only offered to high school students and requires students to be STEM Fellowship members in order to apply in the following programs. Due to the limited number of spots available, only a particular number of members will be selected.*

Internship Program:

- Unique opportunity for Grade 11/12 students to experience scientific research at an academic lab for 5 days over Spring Break
- Receive updates via. STEM Fellowship newsletters on various internship opportunities in differing geographical areas
 - This will be done in conjunction with STEM Fellowship's various university branches)

- Focused on providing internship opportunities for youth from communities underrepresented in STEM fields
- Webinars, workshops, and guidebooks on selection process, and preparing successful applications are available
 - Institutions also have flexibility in tailoring feedback and workshops towards their own interests
- Mentorship and advice on how to get involved in research and exploring career options in STEM is also available

Mentorship Program:

- Opportunity for high school students (mentees) to be paired with undergraduate mentors based on areas of interest of mentee
 - Focus of mentorship can be career, life or academic-oriented depending on the mentee's needs and interests
 - This may even entail exploring possible career options, discovering one's passion, and how to conduct one's own research
- Free academic support, peer counseling, and resources for finding financial aid needed in higher education will be provided

Becoming a STEM Fellowship Associated School

Cost: \$180

An **institutional membership** certifies an institution as a **STEM Fellowship Associated School**. This designation provides students with enriching, STEM-oriented opportunities inside and outside the classroom, allowing them to develop applicable and transferable skills relevant in all fields of STEM. This designation allows registered students to sign up through the school for STEM Fellowship's competitions and contests, as well as, receiving access to the institution's subscriptions to STEM Fellowship programs and services.

- Receive a "kick-off" presentation open to all members of the institution where representatives from STEM Fellowship review benefits and operations of the program
- Institution can form a STEM Fellowship branch with its own representatives and committee
- Institutions may also partake in the following competitions and/or challenges:
 - **CaYPT (Canadian Young Physicists' Tournament)**: secondary students compete to participate in the International Young Physicists' Tournament by presenting solutions to scientific problems (which require background research, experimentation and analysis of variables over a time period of a few months)
 - **Big Data Challenge**: undergraduate and high school students (in their own respective streams) undertake a team-based cross-disciplinary competitive opportunity to analyze independent research projects that tackle real-world problems with data science tools. This opportunity also features a chance for publication in the STEM Fellowship Journal
 - **Scholarly Writing Challenge**: an opportunity for high school students (grades 10-12 or equivalent) inside and outside of Canada to showcase their original research
- Subscription to STEM Fellowship Journal where members will be automatically notified of new publications, and will have the opportunity to interact with the Student Editorial Board
 - Interacting with SEB includes; mentorship and support in exploring academic passions, developing scholarly writing skills, and expanding students' experience with peer-reviewed publications

Scholarly Writing Workshops

The Scholarly Writing Workshops, offered at multiple Canadian universities, allow attendees to learn more about writing, editing and the publication process.

- Learning experience will be complemented with relevant digital tools and hands-on exercises alongside developing a strong understanding of the topic
- May be offered for free (if institution is able to provide access to audio/video and a space for presentation, i.e. our services are free)
- Workshops, besides being offered, may also be tailored to suit a particular high school level credit course (eg. Biology, Physics) in the STEM field
- Access to workshop video
 - Workshops will be recorded and filmed for attendees to use on their own

- Workshops for assistance in developing strong works for Scholarly Writing Challenge are also available

Scholarly Writing Challenge

The Scholarly Writing Challenge is a unique opportunity for high school students (grades 10-12 or equivalent) inside and outside of Canada to showcase their original research. This also includes the chance for student research to be published in the STEM Fellowship Journal

- Members may receive personalized feedback on how to improve, and have an opportunity to work with an editor to prepare a final revised manuscript for future publication
- Workshops for developing strong writing pieces are also available through the Scholarly Writing Workshops

STEMpowerment Program

The STEMpowerment Program aims to cultivate student talent and innovation in STEM fields by specifically focusing on providing free academic support and peer counselling for youth part of communities that are traditionally underrepresented in STEM fields. To achieve such an objective, STEM Fellowship has established the following program for high school students:

Note: The Internship Program is not available at the institutional membership level given that large groups of high schools students under a STEM Fellowship Associated School may not fit the accommodation level of the labs open for internships during Spring Break. For further information, please contact the Memberships Committee.

Mentorship Program:

- Opportunity for high school students (mentees) to be paired with undergraduate mentors based on areas of interest of mentee
- Focus of mentorship can be career, life or academic-oriented depending on the mentee's needs and interests
- This may even entail exploring possible career options, discovering one's passion, and how to conduct one's own research
- Free academic support, peer counseling, and resources for finding financial aid needed in higher education will be provided
- STEM Fellowship will also inform the institution's science teachers, guidance counselors, and career advisors about STEM Fellowship programs and upcoming local programs for students to get involved in
- Peer mentors for a group of mentees (a group of 2-3 students) may be organized for interested institutions

Technicalities of STEM Fellowship Memberships

Interested individuals and institutions should refer to STEM Fellowship's website for access to the application form. Note that there are two application forms pertaining to the two membership options provided - please select either the Individual or Institutional Membership when applying. After submitting the application and payment for your STEM Fellowship membership, you will receive a confirmation email in regards to your payment. The memberships committee will review the application and will send your STEM Fellowship membership number along with a temporary membership card until the official one arrives by email. Your STEM Fellowship membership number is mandatory to participate in any of STEM Fellowship's programs - it is crucial that you store your membership information in a safe place. Incoming members will also receive further instructions and information on becoming a fully-registered member. If you do not receive your STEM Fellowship membership information in 3-5 business days, please send an email to the Memberships Committee.

Membership Renewal

New members will retain their membership for a year. In order to continue being a member, individuals or institutions will undergo contract renewal prior to their membership expiration date. This process will be carried through with the Memberships Committee Human Resources Liaison and the Human Resources Team.

Violation and Termination of Memberships

Members are expected to adhere to STEM Fellowship's Code of Conduct throughout the duration of their membership. By enjoining as a STEM Fellow or as a STEM Fellowship Associated School, members will agree to recognize that the organization has the responsibility and authority to subject to discipline a member, up to and including removal from organization upon violation of the STEM Fellowship Code of Conduct. Supporting documents will be sent to incoming members upon purchase and processing of a STEM Fellowship Membership.

Cancellation of Memberships

If a member would like to cancel their membership, they are required to contact the Memberships Committee. Given that there is a fee for becoming a member, individuals interested in cancelling their membership should be advised that there is a money-refund policy available only for 30 days after receiving a STEM Fellowship Membership. Should one choose to cancel their membership after this refund period, they will not be offered any refunds on their membership fee.