STEM FELLOWSHIP UCALGARY
HIGH SCHOOL RESEARCH
INTERNSHIPS

APPLICANT HANDBOOK

March 23rd – 27th, 2020
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Introduction

Thank you for your interest in the STEM Fellowship UCalgary High School Research Internships. Please read this document in its entirety prior to starting your application. Should you have any questions, please refer to this document before contacting our team.

What is the STEM Fellowship Internships Program?

STEM Fellowship High School Research Internships offers students the unique opportunity to participate in cutting-edge research at a University of Calgary laboratory. This program will take place for five days during spring break (March 23-27, 2020). It will enable students to explore the world of research, be immersed in the process of scientific inquiry, and ask questions about possible paths to this field. Participants will engage in activities including tours of first-class research facilities, introductions to basic techniques and experiments using state-of-the-art equipment, shadowing of lab personnel and attending lab meetings, seminars and faculty presentations. Students will be mentored one-on-one by graduate students and will be involved in the hands-on experiments that their mentors are working on.

Once selected, interns will rank their top 3 laboratory choices. However, students are encouraged to read the program descriptions for this year’s participating laboratories. This can be found here.

Eligibility

All applicants must meet the following criteria in order to be considered for the program:

- The applicant must be enrolled in a Canadian high school
- The applicant must currently be in grade 11 or 12
- The applicant must be at least 15 years of age as of March 1st, 2020
- The applicant must demonstrate exceeding interest in STEM research
- The applicant must complete and submit the application form and all required documents prior to the application deadline (January 3rd, 2020 at 11:59pm)

Academic Requirements

- All Applicants: Science 10 must be completed with a minimum grade of 80%
- Grade 11 Applicants: Must currently be enrolled in or have completed Math 20-1 and ELA 20-1
- Grade 12 Applicants: Must currently be enrolled in or have completed Math 30-1 and ELA 30-1.

Reserved Seats

The STEM Fellowship 2020 Internships Program at the University of Calgary will reserve approximately 50% of the program seats for high school students that self-identify as being from communities that have been traditionally underrepresented in STEM fields.
Students from the following backgrounds qualify under the underrepresented student category:

- Indigenous or of Indigenous ancestry
- Socioeconomically disadvantaged
- Rural students
- New immigrants
- Refugees

**Internship Timeline**

<table>
<thead>
<tr>
<th></th>
<th>Internship timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>December</strong></td>
<td>Application launches December 2, 2019</td>
</tr>
<tr>
<td><strong>January</strong></td>
<td>Application closes Jan 3, 2020 (11:59pm)</td>
</tr>
<tr>
<td><strong>February</strong></td>
<td>Potential interns notified in February 2020</td>
</tr>
<tr>
<td></td>
<td>Potential interns undergo interviews in February 2020</td>
</tr>
<tr>
<td></td>
<td>Successful interns notified in February 2020</td>
</tr>
<tr>
<td><strong>March</strong></td>
<td>Internships: March 23-27, 2020</td>
</tr>
</tbody>
</table>

**Intern Responsibilities:**

All students admitted to the program are responsible for the following:

- Travel arrangements to and from the lab
- Ensuring availability on a full-time basis during the week of the internship
- Completing safety courses (if necessary) prior to beginning the internship and following lab safety protocols during the week*
- Completing a University of Calgary Young Persons Accessing Laboratories Waiver and a STEM Fellowship Waiver prior to beginning the internship program
- Completing a feedback survey following the internship

*Selected interns will be contacted by their respective labs prior to the beginning of their internships regarding necessary safety courses.
The Application Process

If eligible, students must ensure all of the following documents are submitted correctly prior to January 3rd, 2020 at 11:59 pm. No late applications will be reviewed.

1. Application form
2. Detailed Academic Report (DAR)
3. Reference Letter

Submission of documents (2) and (3) must be made to:
ucalgaryinternships@stemfellowship.org

**Important:** Documents (2) and (3) must be submitted to the indicated e-mail address using the following subject line:

DAR: Full Name of Applicant
OR
REFERENCE LETTER: Full Name of Applicant

Please note that we request correct casing of letters as well.

In the case that an applicant submits 1 or more of these documents under different subject lines, the application will not be considered.

Application Form

Section 1: Personal Information

Responses should not include sentences or punctuation. Please provide reliable contact information that you check regularly so STEM Fellowship UCalgary is able to communicate efficiently with you.

Section 2: Minority Group Identification

Students may check off as many boxes as applicable. Please note that false statements will not be tolerated and will result in students being disqualified from consideration.

Essay Questions

Each member of the review committee follows an official rubric made by the entire STEM Fellowship UCalgary branch to ensure that all applicants are evaluated equally and anonymously.

Each response will be given a score out of 25 based on how effectively and articulately the student conveys their passion for STEM, the quality of writing within the response, the uniqueness and authenticity of the answer and what the student hopes to gain from the
experience. The entire written component of the application will sum to a total of 75 points, and this score will go towards the applicant’s total score of 100.

In the case that 1 or more response(s) are/is left blank or exceed(s) the limit of 300 words, the application will not be considered.

We encourage students to share unique personal experiences, rather than mass-favoring responses.

**Detailed Academic Reports**

**Obtaining and Submitting a DAR**

All applicants are required to submit a detailed academic report (DAR) prior to 11:59pm on January 3rd, 2020. This MUST be submitted to the following e-mail address:

ucalgaryinternships@stemfellowship.org

with the following subject line:

DAR: Full Name of Applicant

In the case that an applicant submits a DAR under a different subject line, the application will not be considered.

Detailed academic reports may be downloaded from the MyPass:

https://public.education.alberta.ca/PASI/myPass/welcome

Instructions on how to use MyPass may be found here:

https://www.youtube.com/watch?v=2_cVeGlZo_Q&

It is important to note that a DAR is NOT equivalent to an official transcript. Students ARE NOT required to submit official transcripts. Upon any questions regarding the distinction between the two, please send an e-mail to: ucalgaryinternships@stemfellowship.org

**DAR Evaluation**

All appropriately submitted DARs will be given a score out of 25. This score will partly depend on the calculated average of 5 classes including: Math 20/30-1, ELA 20/30-1 and the 3 most recently taken classes indicated on the DAR. Note that science classes will take priority over non-science classes when determining the 3 most recently taken classes.
The score will also depend on the grade of the student, grade 12 students receiving priority over grade 11 students. The reason for this is to provide grade 12 students with a final opportunity to participate in research prior to university.

Lastly, the score will depend on the level of difficulty of the classes being taken by the applicant. Students taking IB/AP classes will be given extra points. This is to ensure an even playing field when comparing numerical grades obtained in classes.

It is important to note that all DARs will be assigned numbers and will be evaluated completely anonymously by the STEM Fellowship UCalgary review committee. The reviewers follow an official rubric made for DAR evaluation to ensure that DARs are evaluated equally. A score out of 25 will be assigned to every DAR, and this score will go towards the applicant’s total score of 100.

Reference Letters

All applicants are required to have a reference letter submitted on their behalf by an eligible “referee”. All applicants must approach an authoritative figure and request that they allow the use of their full name and e-mail address in the “Personal Information” section of the application form. Furthermore, the applicant must confirm with their referee that a reference letter (signed and dated) will be submitted on their behalf prior to the application deadline. This letter must be submitted by the referee themselves to the following email address:

ucalgaryinternships@stemfellowship.org

with the following subject line:

REFERENCE LETTER: Full Name of Applicant

The reference letter may NOT be submitted by the applicant, as this letter must remain confidential. At no point should the letter come into contact with the applicant.

Referee Eligibility

A referee may be any individual who has acted as a figure of authority to the applicant in a professional setting. We highly recommend that applicants approach their academic teachers, extra-curricular supervisors, bosses, etc. for sources of reference letters. Please note that a referee may NOT be a family member or colleague to the applicant. The relationship between the applicant and the referee must be strictly professional.

Upon any questions on whether a particular individual may be chosen to act as an applicant’s referee, the applicant may send an e-mail to ucalgaryinternships@stemfellowship.org.

In the case that the applicant fails to provide a reference letter on their behalf, or the reference letter does not meet the referee eligibility criteria, the applicant will not be considered.
Reference Letter Format and Structure

All submitted reference letter must be less than or equal to 1 page in length. The reference letter must provide reasoning as to why the applicant makes a strong candidate for the program, based on their previous accomplishments and experiences. We encourage personal encounters to be emphasized, as well as positive qualities the applicant expresses to be written about. In general, the following questions should be answered in the reference letter:

1. Among a large group of individuals, what makes the applicant unique, and therefore, right for the position?
2. What type of behavior does the applicant possess that will allow them to excel in this program?
3. What do you feel that others will gain from working alongside the applicant in a professional setting?
4. Can you describe a situation in which the applicant stood out to you? What does this say about the applicant’s character?

Important: Please note that the reference letter MUST be typed and in an acceptable font and font size (we recommend Times New Roman, size 12). Furthermore, the referee MUST date and sign the letter prior to submission. The letter may be sent via a PDF file. The full name (as appearing in the “Personal Information” section of the application form) MUST also be on the reference letter, as well as the relationship between the referee and the applicant (ex: Science Teacher, Swim Instructor, etc.).

Reference Letter Checklist

Note: Reference letters will only be scored if the applicant has progressed to the interview stage.

☐ The letter is written by a referee who holds an authoritative and professional relationship with the applicant
☐ The letter contains the referee’s full name and e-mail address
☐ The letter addresses some or all of the 4 questions on page 8
☐ The letter is less than or equal to 1 page in length, typed in a legible font and font size
☐ The letter is signed and dated by the referee
☐ The letter is submitted to ucalgaryinternships@stemfellowship.org prior to 11:59pm on January 3rd, 2020 under the subject line REFERENCE LETTER: Full Name of Applicant
☐ The submitted letter is in WORD or PDF format

Failure of satisfying one or more of the above points will result in a lack of consideration of the application.
Interviews

Scoring Applicants

A fraction of the applicant pool will be selected to undergo the interview process, based on a score anonymously assigned to each applicant. Each score is out of 100. A total of 75 points will be allocated to the essay questions in the application form (25 points per question) and 25 points will be allocated to the DAR. The top scores will be selected to undergo the interview process. Please note that priority is given to students identifying with a minority status.

The Interview Process

Interviews will take place in February 2020 and will be located either at the University of Calgary Main or Foothills campus. Applicants are responsible for scheduling their interview time and their transportation to and from the interview. Each interview will be approximately 20 minutes long.

During the interview, applicants will be required to confirm that they are able to provide complete availability from March 23rd – 27th, 2020 between 8:30 – 5:00pm at least. Failure in doing so will result in rejection from the program.

Success in the Interview

Applicants being interviewed will be evaluated in terms of the manner in which the applicant presents themselves, articulates their responses and how the applicant chooses to respond to each prompt. We aspire to make the interviews more of a conversation, rather than a question-and-answer format, so we ask that the applicant behave naturally and interact amicably.

It is strongly recommended that prior to the interview, the applicant should look into the research of their preferred laboratories and have a general understanding of the subject matter. Although the applicant will not be tested on the material, the topic of the research of interest will be addressed throughout the interview, and it will be assumed that the applicant may continue the conversation with basic knowledge on the subject. Apathy towards the research of interest will result in rejection from the program.

In addition to studying the research topics, it is advised that students prepare for interviews by preparing responses to traditional interview-style questions. Prompts such as “what is your greatest strength/weakness?”, “what valuable skills will you bring to the workplace?” and/or “what distinguishes you from other applicants?” are highly likely to be asked. The fluidity of the applicant’s response as well as the quality of interaction between the interview committee and the applicant will be evaluated. A lack of cooperation or a disinterest in engaging in conversation will not be tolerated.
It is important to note that admission into this program requires supreme responsibility and avid sophistication, therefore, all applicants are required to behave professionally, and with high levels of maturity.

**Post-Interviews and the Week of Internships**

All applicants will be contacted, regardless of the outcome of their application.

**Internships Week**

**Expectations during Internships Week**

This year, internships week is March 23rd – 27th, 2020. Students are required to provide complete availability within regular working hours (8:30am – 5:00pm) and be prepared for potential overtime participation. Students must arrive at their laboratories on time every day and must confirm with their supervisors what time they must stay until on a daily basis. Failure of arriving on time or leaving the laboratory without permission will result in exemption from the program.

In the case that an intern must arrive late or miss a day of the internship, the applicant MUST bring this concern to their supervisors AND the STEM Fellowship team as early as possible. Primary sources of contact for both parties will be provided in March 2020. This must only occur in an emergency situation.

**Internships Reception**

Each year, STEM Fellowship aims to create a reception event in which students will have the opportunity to present their research in front of other interns as well as their PIs. Although the event is not mandatory, students are highly encouraged to attend.

**Conclusion and Acknowledgements**

Thank you for choosing to apply to the STEM Fellowship 2020 Internships Program. All of us at STEM Fellowship are very much looking forward to reading your applications and potentially meeting you in person. This opportunity it truly one in a million, and we feel very grateful to have the ability to host it. We hope you treat it with respect, dignity and utmost eagerness to learn as much as possible. It is incredibly rewarding for us to see young students expand their realms of knowledge, experience and creativity, and we are very excited to see a new round of interns undergo this program. We hope you feel the same way.

Upon any questions or concerns, please refer to ucalgaryinternships@stemfellowship.org.