

# Chloe Ma

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## Education

### **University of British Columbia Bachelor of Science**

Expected May 2028

GPA: 94

Vancouver, British Columbia

### **Western Canada High School**

Sept 2022 – June 2024

High School Diploma, IBDP

Lifetime Member of the Honour Society (Average over 80%)

Calgary, Alberta

## Technical Projects

### **The Efficacy of Vectored Thermal Pulsation System (Lipiflow®) for Meibomian Gland Dysfunction**

- Conducted an analysis of the efficacy of the VTP system compared to the standard treatments for meibomian gland dysfunction
- Performed a literature review and synthesized findings from studies with varied demographics, focusing on outcome measures such as OSDI and MGS scores
- Analyzed and synthesized data from studies, creating visualizations (graphs) to highlight treatment effectiveness and improvements across diverse patient groups

### **The Relationship Between Measles Cases and Vaccination Coverage**

- Performed an investigation regarding the correlation between global measles vaccination coverage and number of measles cases from 1980 to 2020
- Compiled raw data from the World Health Organization database and processed data of population, first dose of vaccine administered, cases of measles to determine coverage percentage and cases/million people
- Analyzed and processed data using Excel, creating graphs and performing statistical analysis tests like Spearman's Ranked Correlation Coefficient

### **Determining the Oxalate Content in Black Tea**

- Designed permanganate redox titration experiment to determine oxalate content in tea
- Created standard solutions and sample solutions, as well as standardizing the titrant and performing 25 titration trials
- Analyzed data and effectively communicated findings through visualizations and discussion

### **To what extent should minors have the right to advocate for medical action?**

- Considered the ethics of to what extent a child has autonomy and how much power a guardian should have to override their views
- Discussed the opposing views using paternalism and best interest policy and identified fallacies and flaws in both arguments

## Technical Skills

#### Biology

- Dissection
- Microscopy
- Chromatography

#### Chemistry

- Titration
- Spectrophotometry
- Calorimetry

#### Computer

- Basic Python
- Microsoft Office Suite

## Awards & Certifications

- **Alexander Rutherford Scholarship (2024)** - Recognizes academic achievement of senior high school
  - \$2500 for maintaining average over 80% over three years of high school
- **British Biology Olympiad (2023)** – Gold Placement
  - Awarded to top 5% of students that participated

## **Volunteer and Leadership Experience**

### **Point Grey Hospital Volunteer**

UBC PATHS Volunteering

Jan 2025 – Present

- Assisting in executing program activities, including making crafts, playing bingo and trivia in group settings for mental exercise and enrichment
- Providing one-on-one companionship to elderly patients by engaging in conversation

### **Floor Representative**

UBC Place Vanier Residence Association, House Council

Sept 2024 – Present

- Collaborating on planning and executing 3 events, including movie nights and painting events, each semester to enhance resident engagement
- Managing and planning the council budget through event planning and deciding the distribution of money towards event proposals made by resident advisors
- Advocating for resident needs and concerns by creating a submission page for feedback and bringing up issues to the residence association. Concerns include the lack of working washing machines and desire for better cleanliness, ultimately contributing to creating a positive living environment

### **Junior Executive of Private Lessons**

UBC MusicBox

Sept 2024 – Present

- Coordinating matching 20 students to volunteers based on for private music lessons programs across Lower Mainland Vancouver. This includes sending emails to new volunteers to ensure proper forms are filed, attaining availability of both volunteers and students, and holding regular meetings with volunteers to provide support in any difficulties they encounter in teaching, like engaging very young children.
- Communicating and planning with 3 partner centers regarding scheduling and lesson logistics, sending updates on our volunteers and program status.
- Collaborating with the other divisions of MusicBox in planning and setting up concerts and field trips for the students to enrich their musical experience.
- Coordinating the implementation of new instrument lessons like ukelele. Additionally, gauging student interest and collaborating with UBC Acapella and Choir clubs by recruiting their members to start volunteering in our voice lesson initiative.

### **Peer Tutor**

Western Canada High School, Peer Tutoring Club

Sept 2023 – June 2024

- Planned supplemental lessons elaborating and explaining mathematical concepts, and creating practice questions as well as providing supplemental resources to support math students who were falling behind in class.
- Provided one-on-one weekly math tutoring to 2 Grade 10 students, working through practice problems and finding new ways to explain concepts and understanding question wording to help them build confidence in approaching

### **Piano Instructor**

Musica Academy

Sept 2021 – June 2023

- Taught young children how to play the piano, preparing them for exams by practicing pieces and providing feedback, and helping them catch up on missed group lessons by providing one-on-one guidance on missed content.
- Planned activities, including games of recognizing notes and sing-along pieces and stories to engage and instruct children aged 5-10 in musical education. Connected with students through feedback and conversation, like learning and simplifying pieces that they enjoy, to build trust and develop passion for music.

## **Hobbies and Interests**

- Piano (10 years)
- Reading
- Clarinet (6 years in school concert band)
- Puzzles and Word Games