



Be Future Ready!

Post-Secondary Readiness

- Dual credit opportunities: Students have opportunities to achieve high school and post-secondary credits simultaneously.
 - o Health Science 20H/Medical Terminology 180 – SK Polytechnic
 - o Anatomy 30H /Anatomy 100 – SK Polytechnic
 - o MATH110.3/Calculus 30 – University of Saskatchewan
 - o BIOL120.3/Biology 30 – University of Saskatchewan
- Additional lab experiences within HSA classes and at post-secondary institutions
- Guest lectures and teaching from local scientists, medical professionals, and researchers
- Hands on work with nursing students in a classroom setting

University of Saskatchewan First Year Credit Courses

Biology 120.3 U of S / Biology 30 – Grade 12 HSA students will have the opportunity to get a first year U of S Biology credit while at BJM with no tuition costs. They will earn their Biology 30 credit before beginning the BIOL120.3 course.

Math 110.3 U of S / Calculus 30 – after completing Math Pre-Calculus 30, students will have the opportunity to get a first year U of S Math credit while at BJM with no tuition costs. They will also have the opportunity to earn a Calculus 30 credit.

Career Development

- Presentations on health care and projected future needs for jobs within the industry
- Saskatoon Health Region presentations
- Presentations from local scientists and researchers to expose students to a variety of career opportunities.
- Presentations from local scientists and researchers to help students develop research skills.
- Mentorship opportunities with professionals working in the health and science related fields
- Grade 9 – Career Exploration Unit
- Grade 10 and 11 – Career Conferences with Student Services and SIEC events
- Grade 12 – Exit Meeting and Planning for future with Student Services



Program Costs:

Due to the generous support of Heather Ryan and David Dubé, there is no tuition for the Health & Sciences Academy. There will be an annual program fee of \$75 to cover the costs of field trips, unique educational experiences, and supplies (including purchasing and maintaining microscopes and Chromebooks). Additional program costs are due to the fees post-secondary institutions charge for their classes. HSA students can take these classes at a significantly reduced rate. The 2024-25 costs are anticipated to be the following.

Additional Costs for HSA Program (Required Courses)

Grade 11 - Medical Terminology 180 (dual credit with Health Science 20H) approx. \$160
(SK Poly cost approximately \$410.00)

Additional Costs for HSA Program (Optional Courses)

Grade 12 - Anatomy 100 (SK Poly dual credit with Anatomy and Wellbeing 30H) approx. \$160
(SK Poly cost approximately \$410.00)

Grade 12 - Biology 120.3 University of Saskatchewan \$0 tuition + cost of
(\$90 U of S Registration Fee – only pay once) textbook and
(U of S cost approximately \$750 plus fees) lab manual (~\$200)

Grade 12 - Math 110.3 University of Saskatchewan \$0 tuition + cost of
(\$90 U of S Registration Fee – only pay once) textbook (~\$100)
(U of S cost is approximately \$730 plus fees)

Note – students taking U of S classes will only pay one registration fee and will not have to pay it again if they attend the U of S in the fall.



Course Descriptions

Core 90H – (English Language Arts A and B, Catholic Studies 90, Social Studies 90) – The four core subjects in grade nine will achieve the curricular outcomes in an engaging and unique way by integrating as much health and science related content as possible. HSA students will be placed in two cohorts for these courses. The HSA core will allow students to develop friendships with like-minded peers coming from different elementary schools when they come to BJM in grade nine.

Science 90H – This course serves as an introduction to all sciences through a study of human reproduction, atoms and elements, electricity, and space. Through many opportunities for hands-on learning, students will develop strong lab skills and an understanding of science fundamentals needed for future courses.

Science 10H – Students will delve deeper into chemical reactions, investigate the dynamics of the climate and ecosystems, and explore forces and motion. Labs, activities, simulations & inquiry projects will help students to develop their skills so that they are best prepared for all the 20 level sciences. Unique investigations will be done in this course to help students become more aware of their own environmental impact. Students will expand on the forces and motion topics in this course by learning about the physics of flight and will learn from pilots and mechanics through an HSA partnership with the Saskatchewan Aviation Museum.

Environmental Science and Toxicology 20H – The role of humans in the environment will be explored in this course through the study of ecosystems, resource management and environmental testing. The impact of pollution on human health will also be investigated. A partnership with the University of Saskatchewan will give students a one-week introduction to the field of Toxicology.

Health Science 20H/ Medical Terminology 180* (SK Poly dual credit) – Human body systems, nutrition, health care ethics and philosophy, and the diagnosis and treatment of disease will all be explored in this course. Students will learn new lab skills as they consider health case studies and lab results to produce diagnoses for disease. As part of the course, Medical Terminology 180 will be completed through SK Polytechnic for a dual credit.

Physical Science 20H – This course will allow students to probe further into the foundations of chemistry through the investigation of chemical reactions. Students will also examine the physics of many types of waves. This will include unique topics outlining the anatomy of voice, hearing, and sight. This is done to allow students to connect with the material and understand how the human body uses and interprets waves. Students will also develop a thorough understanding of the Laws of Thermodynamics in this course. In this section, a strong emphasis will be placed on developing strong problem-solving skills.

Anatomy 30H/Anatomy 100* (SK Poly dual credit) – In this dual credit course, students will explore the structure and function of major body systems and how they maintain a healthy body. Engaging lab experiences will enhance student learning.

*This is not an HSA required course. Students may choose to take this as an elective.

Biology 30H – In this course, students will learn about the cell and its functions and genetics and biotechnology. Through a study of evolution, students will examine the relationships between kingdoms of living things.

*This is not an HSA required course but is a requirement for students planning to register for Biology 120.3.

Biology 120.3 University of Saskatchewan (first year biology class)

This course will provide a continued study of the underlying fundamental aspects of living things. This will include an examination of the cell, genetics and the evolutionary processes which lead to complex, multicellular life forms. Extensive lab work will be a key part of this class.

Prerequisite: Biology 30H. Chemistry 30 is also strongly recommended as a prerequisite for this course.

* This is not an HSA required course.

Math 110.3 University of Saskatchewan (first year math class)/Calculus 30 (dual credit)

This course is an introduction to derivatives, limits, techniques of differentiation, implicit differentiation, anti-derivatives, and application problems.

Prerequisite: Pre-Calculus 30. A strong mathematical background is strongly recommended.

Note that students who successfully complete this course will also receive a Calculus 30 credit.

* This is not an HSA required course. Students may choose to take this as an elective.



The Health & Sciences Academy (HSA) at Bishop James Mahoney High School (BJM) is an exciting grade 9 - 12 program that will give students a one-of-a-kind high school experience. Students will be engaged in unique classes that emphasize hands-on learning, critical thinking, collaboration, creativity, and communication. Students who fully engage in, and complete the HSA program, will both graduate high school and gain an advantage for post-secondary education in related fields.

The HSA student experience will be unique both in and out of the classroom. HSA designated classes will be filled exclusively with the HSA cohort. This will allow students to work alongside, and/or develop friendships with, like-minded peers. The HSA has developed partnerships with post-secondary institutions and local organizations, and provides opportunities to gain high school and post-secondary credits simultaneously. Students within the HSA will also be part of the BJM family and can participate in all the extracurricular programs and events offered.

The Health & Sciences Academy is for students who:

- may be interested in a healthcare or STEM (Science, Technology, Engineering, and Math) career;
- love science and math, and want a unique and engaging high school experience;
- are willing to embrace a rigorous academic environment;
- want an academic advantage by earning dual credits, SaskPoly credits and university credits.

Application Process

- Students may apply for entry in grade 9 or 10
- Pick up a registration package at the school or download and complete the application form on our website <https://www.gscs.ca/bjm/page/3127/health-and-sciences-academy>
- Return your completed application by mail or deliver it to:
*Health & Sciences Academy
Bishop James Mahoney High School
231 Primrose Drive
Saskatoon SK S7K 6Y3*

Application Timelines

- The deadline for the first round of applications is **March 1st, 2024**.
- Applications received **after 4:00 pm March 1st, 2024**, will only be considered if the program is not full. If the program is at capacity, late applications will be placed on a waiting list.
- The following aspects of the application will be considered: academic achievement, attendance, and conduct.
- Students will be informed of acceptance or non-acceptance in an email by **April 19th, 2024**.

Suggested Pathway for an HSA Certificate Student

| | Semester 1 | Semester 2 |
|----------|--|---|
| Grade 9 | <p>Science 90H MathA 90H English Language Arts A90 Social Studies 90 Physical Education 90 / General Practical Arts 90 / Band 90</p> | <p>MathB 90H English Language Arts B90 Catholic Studies 90 Physical Education 90 / General Practical Arts 90 Arts Education 90 / Band 90</p> |
| Grade 10 | <p>Science 10H Math Foundations and Pre-Calculus 10 <u>English 10 / English 10 Advanced</u> <u>Catholic Studies 10</u> Choose Elective (Wellness 10 recommended (if band, choose Wellness 10 & Band 10))</p> | <p>Environmental Science and Toxicology 20H Math Foundations 20 <u>History 10 / Indigenous Studies 10</u> <u>Financial Literacy 10</u> Choose Elective (if band, choose Wellness 10 & Band 10)</p> |
| Grade 11 | <p>Math Pre-Calculus 20 Physical Science 20H <u>Catholic Studies 20</u> (if band, choose Catholic Studies 20 & Band 20) <u>Choose a 20-Level Social Science</u> (Psychology 20 recommended) Choose Elective 1</p> | <p>Health Science 20H & Medical Terminology 180 (SaskPoly) Math Pre-Calculus 30 <u>English 20 / English 20 Advanced</u> Choose Elective 2 (if band, choose Catholic Studies 20 & Band 20) Choose Elective 3</p> |
| Grade 12 | <p>Chemistry 30 <u>Catholic Studies 30</u> (if band, choose Catholic Studies 30 & Band 30) <u>History 30 / Indigenous Studies 30</u> Choose Elective 1 (Physics 30 or Anatomy and Well Being 30H & Anatomy 100 (SaskPoly) recommended) Choose Elective 2 / Spare / Study Period</p> | <p>Biology 30 or Biology 30H & BIOL120.3 (UofS) <u>English 30 / English 30 AP</u> Choose Elective 1 (if band, choose Catholic Studies 30 & Band 30) Choose Elective 2 / Spare / Study Period (slot filled if BIOL120.3 (UofS) is taken) Choose Elective 3 / Spare / Study Period</p> |

N.B. Underlined courses are required for either the HSA Certificate Program or are graduation requirements outlined by The Ministry of Education. Students must still meet graduation requirements by completing a total of 24 credits including one of Wellness 10, Physical Education 20, or Physical Education 30.

Highlighted courses are intended to occur in the semester outlined. The semester in which the other classes fall may depend on the electives which are selected.

Suggested Pathway for an HSA Diploma Program Student

| | Semester 1 | Semester 2 |
|----------|--|--|
| Grade 9 | <p>Science 90H MathB 90H English Language Arts A90 Social Studies 90 Physical Education 90 / General Practical Arts 90 / Band 90</p> | <p>MathB 90H English Language Arts B90 Catholic Studies 90 Physical Education 90 / General Practical Arts 90 Arts Education 90 / Band 90</p> |
| Grade 10 | <p>Science 10H Math Foundations and Pre-Calculus 10 <u>English 10 / English 10 Advanced</u> <u>Catholic Studies 10</u> Choose Elective (Wellness 10 recommended (if band, choose Wellness 10 & Band 10))</p> | <p>Environmental Science and Toxicology 20H Math Foundations 20 <u>History 10 / Indigenous Studies 10</u> <u>Financial Literacy 10</u> Choose Elective (if band, choose Wellness 10 & Band 10)</p> |
| Grade 11 | <p>Physical Science 20H Math Pre-Calculus 20 <u>Catholic Studies 20</u> (if band, choose Catholic Studies 20 & Band 20) <u>Choose a 20-Level Social Science</u> (Psychology 20 recommended) Choose Elective 1 / Spare / Study Period</p> | <p>Health Science 20H & Medical Terminology 180 (SaskPoly) Math Pre-Calculus 30 <u>English 20 / English 20 Advanced</u> Choose Elective 2 (if band, choose Catholic Studies 20 & Band 20) Choose Elective 3 / Spare / Study Period</p> |
| Grade 12 | <p>Chemistry 30 Physics 30 <u>History 30 / Indigenous Studies 30</u> <u>Catholic Studies 30</u> (if band, choose Catholic Studies 30 & Band 30) Choose Elective / Spare / Study Period (Anatomy and Well Being 30H & Anatomy 100 (SaskPoly) recommended)</p> | <p>Biology 30H & BIOL120.3 (UofS) BIOL120.3 Lab Calculus 30 & MATH110.3 (UofS) <u>English 30 / English 30 AP</u> Choose Elective / Spare / Study Period (if band, choose Catholic Studies 30 & Band 30)</p> |

N.B. Underlined courses are required for either the HSA Diploma Program or are graduation requirements outlined by The Ministry of Education. Students must still meet graduation requirements by completing a total of 24 credits including one of Wellness 10, Physical Education 20, or Physical Education 30.

Highlighted courses will occur in the semester outlined. The semester in which the other classes fall may depend on the electives which are selected.

STUDENT (Enter your name exactly as it appears on your Birth Certificate)

_____ Last Name _____ First Name _____ Second Name _____

_____ Male Female Unspecified _____
Name by which you are called _____ Student Cell No. _____

_____ Address _____ Postal Code _____ Student's Home Number _____

Student lives with Both Parents (same residence) Both Parents (separate residences) Mother Only Father Only Other _____

Birth: _____ Religion: _____
Month Day Year

_____ Last School Attended _____ City _____ Grade _____ Year _____

Bishop James Mahoney uses email and phone to communicate with our families. Please provide your:

_____ Preferred Phone Number _____ Preferred Email Address _____

Bishop James Mahoney has committed to increase First Nation and Metis graduation rates. Your self-declaration will help to achieve this goal by ensuring access to resources for our FNM students to experience greater academic success.

Voluntary Declaration of Aboriginal Status: Does not Apply First Nation Métis Inuit

MOTHER/GUARDIAN INFORMATION: *Please include e-mail address

Last Name: _____ First Name: _____

Home Address: same as student's OR _____ Postal Code _____

Primary phone: _____ Other: _____ **E-mail** _____

Work Place _____ Telephone: _____

FATHER/GUARDIAN INFORMATION: *Please include e-mail address

Last Name: _____ First Name: _____

Home Address: same as student's OR _____ Postal Code _____

Primary phone: _____ Other: _____ **E-mail** _____

Work Place _____ Telephone: _____

EMERGENCY CONTACT INFORMATION (other than Parent or Guardian):

First Emergency Contact Name: _____ Home # _____ Work/Cell # _____

Second Emergency Contact Name: _____ Home # _____ Work/Cell # _____

Medical Information (e.g. allergies, medications, conditions) _____

Date of Registration: _____ Parent/Guardian Signature _____


OFFICE USE: Entered in My School Sask Schedule Entered

FORM B - HSA Student Application – Reference from a Grade 8 Teacher

Student Name: _____ School: _____

Reference Name: _____ Email: _____

Instructions: For each statement, circle the appropriate number on the scale.

| | Not very much like the student  Very much like the student | | | | |
|--|--|---|---|---|---|
| 1. The student works hard at school. | 1 | 2 | 3 | 4 | 5 |
| 2. The student completes their work on time. | 1 | 2 | 3 | 4 | 5 |
| 3. The student works well with their peers. | 1 | 2 | 3 | 4 | 5 |
| 4. The student demonstrates perseverance in the face of difficulty. | 1 | 2 | 3 | 4 | 5 |
| 5. When struggling to figure something out, the student focuses on the process instead of the final product. | 1 | 2 | 3 | 4 | 5 |
| 6. The student willingly accepts the directions of teachers. | 1 | 2 | 3 | 4 | 5 |
| 7. The student can work independently without supervision. | 1 | 2 | 3 | 4 | 5 |
| 8. The student is a positive leader in the classroom. | 1 | 2 | 3 | 4 | 5 |
| 9. The student is willing to accept constructive criticism and use this feedback to improve their work. | 1 | 2 | 3 | 4 | 5 |
| 10. The student is organized with their time and materials. | 1 | 2 | 3 | 4 | 5 |

Additional Comments (optional): please use the other side or attach a printed document.

Signature _____ Date: _____

Please **sign** the reference and place it in an envelope **signed across the seal** for submission with the rest of the application package.

Checklist for Application Package

- ____ 1. Completed Health & Sciences Registration and Course Selection Card
- ____ 2. Signed Student and Parent Agreement
- ____ 3. Written essay (or typed and attached) on why the student would like to attend the Health & Sciences Academy.
- ____ 4. Adult reference from a teacher or non-family member; reference must be **signed**, placed in a separate envelope and **signed across the seal**.
Form A - *If your reference is someone other than your Grade 8 Teacher*
Form B - *If your reference is your Grade 8 Teacher*
- ____ 5. Copy of most recent report card.
- ____ 6. Attendance record for 2024-25 school year (if not on report card).

Place all contents in large envelope and mail or drop off at Bishop Mahoney High School.

All applications must be received by 4:00 pm March 1st, 2024

(Applications received after 4:00 pm March 1st, 2024, will only be considered if the program is not full.
If the program is at capacity, late applications will be placed on a waiting list.)

Student and Parent Agreement

We understand that the Health & Sciences Academy at BJM is designed for students who are pursuing a science or health-care career. We recognize that attendance and academics are of utmost importance. We understand that enrolment in the Health & Sciences Academy is a privilege and not a right. In addition to grades, attendance and appropriate conduct are mandatory for continued enrolment. Due to the program's integrated nature, students must show a significant level of dependability, responsibility, and independence. Because of regular interaction with educational institutions, various agencies, future employers, and the public, any student who does not maintain acceptable standards may be required to discontinue the program.

Applicant Name

Applicant Signature

Date

Parent Name

Parent/Guardian Signature

Date