

ADVANCED PLACEMENT (AP) INFORMATION SESSION

Thursday, February 6th 6:30pm – 7:30pm



HIGH SCHOOL COURSES AT QEHS

100 CREDITS, MINIMUM, ARE NEEDED FOR A HIGH SCHOOL DIPLOMA.

-2 COURSES

- Course sequences ending in -2, -3, and -4 include some abstract challenges, but they emphasize increasingly concrete and practical challenges

-1 COURSES/AP COURSES

- Course sequences ending in -1 emphasize abstract and ambiguous challenges
- Students who enroll in –1 courses have the option to pursue the corresponding AP course, once the pre-requisite 30-level course has been completed

You do **NOT** need to select all your courses from the same sequence; this is where the flexibility of the AP program comes in

WHAT IS AP?

- Opportunity for deeper more rigorous learning beyond the Alberta Programs of Study
- University style learning – Research, Labs, and Critical Thinking
- Smaller classes with likeminded peers
- Blend of 30 level High School credits and first year University credits
- Flexibility to pursue one or more subjects
- Build a foundation for success at Post Secondary

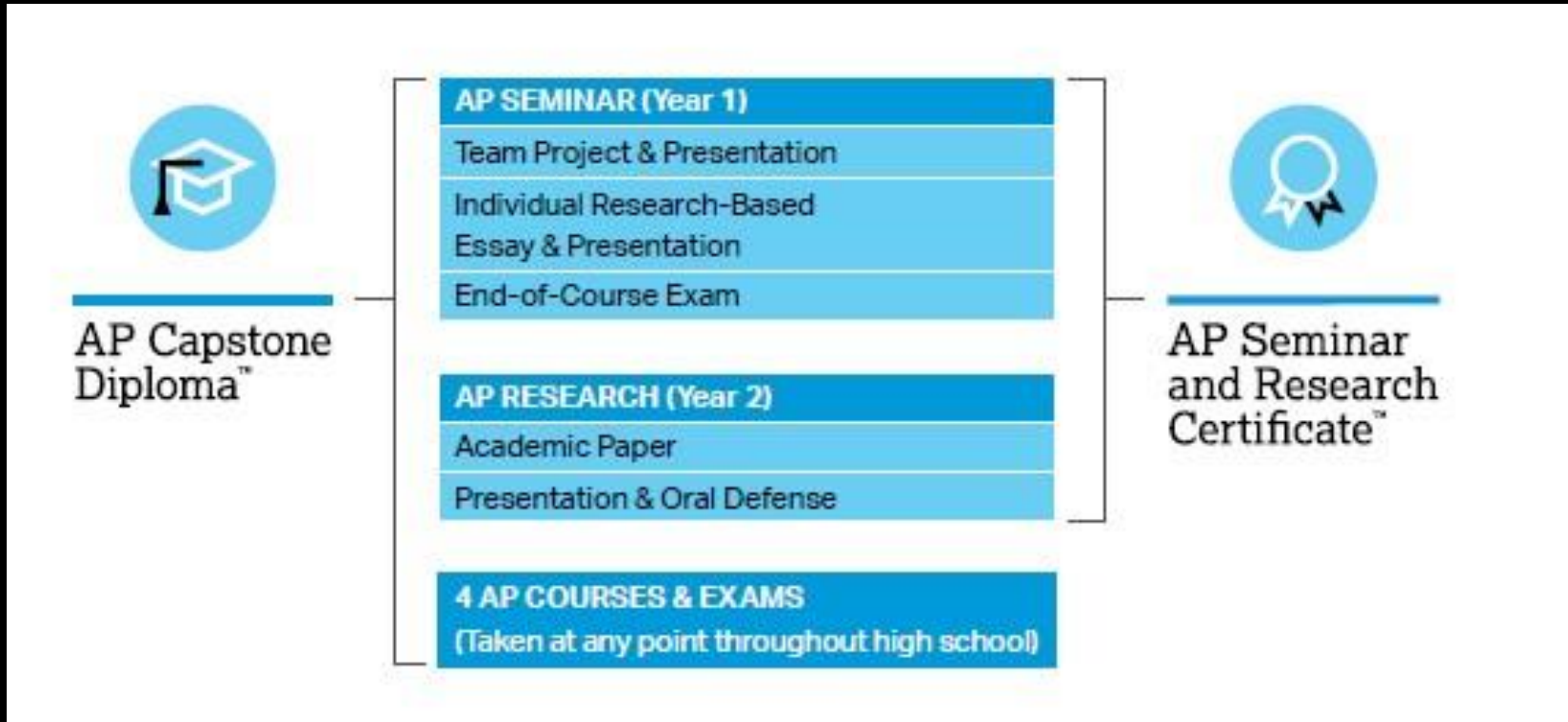
AP COURSES OFFERED AT QUEEN E:

- Math 20-1AP, Math 30-1/31/35AP
- Chemistry 20AP, Chemistry 30/35AP
- Physics 20AP, Physics 30/35AP
- Biology 20AP, Biology 30/35AP
- ELA 20-1/30-1/35AP
- AP Seminar and AP Research *New for 2024

WHO SHOULD TAKE AP COURSES:

- Students who have a passion in a certain subject and want to pursue it more deeply
- Students with a strong academic foundation in grade 10
- Students who receive Teacher Recommendation to take AP courses at the next level
- Students who have a strong work ethic and commitment to academic work
- Students who are looking for advanced credits in first year University
- Students who want to be better prepared for Post Secondary

WHAT IS AP CAPSTONE?



Encourage your children to engage in a lot of 'productive disagreement.'

-Greg Lukianoff, Jonathan Haidt

AP SEMINAR

- Learn to consider issues from multiple perspectives through multiple lenses
- Build skills in evaluating strengths and weaknesses in arguments
- Learn to identify credible sources of information
- Investigate a variety of topics and viewpoints
- Students will complete: a team research-based presentation, an individual written argument, an individual multimedia presentation, and a written end-of-course exam
- AP Seminar is a pre-requisite for AP Research

AP RESEARCH

- Students will explore various research methods and complete an independent research project
- Independent research projects can build on the topic/problem covered in AP Seminar or focus on a brand-new topic chosen by the student
- At the end of the project students will submit their academic paper and present/defend your research findings.
- There is no end-of-course exam for AP Research

EXAMPLES OF TOPICS

Here are some topics that students have chosen to investigate in **AP Seminar**:

- Effect of texting on grammar skills
- Food waste solutions
- Future of the automotive industry
- Importance of voting age and civic participation of teens
- Mathematics behind extreme sports
- Genetically modified organisms
- Role of art in education
- Wealth inequality

Visit the AP Seminar student home page at [**apstudent.org/seminar**](https://apstudent.org/seminar)

Here are some topics that students have chosen to investigate in **AP Research**:

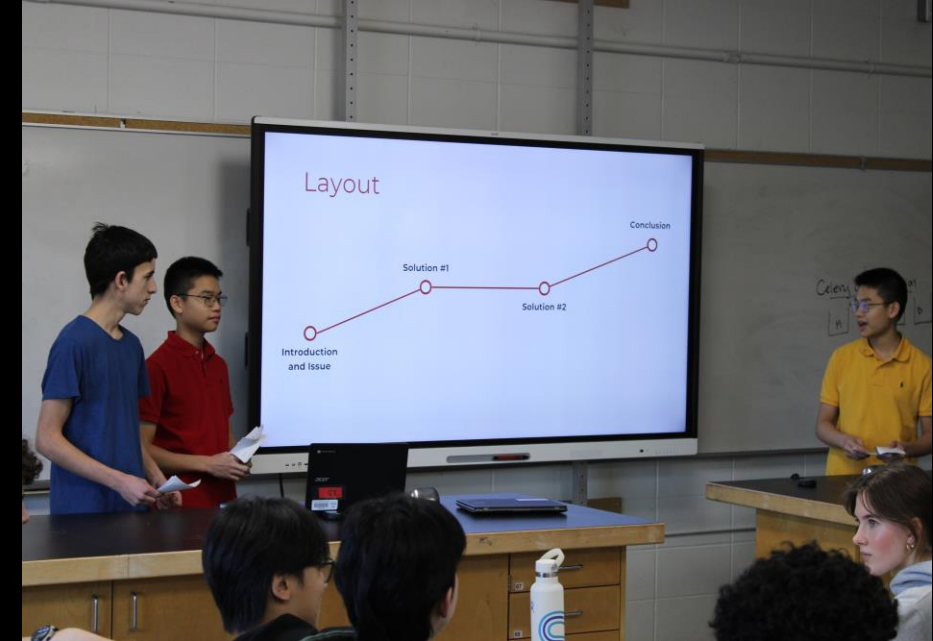
- 3-D printed prosthetics for amputees
- Algorithm of K-POP music
- Effects of sleep deprivation on academic achievement in teens
- Learning chemistry through musical chords
- Environmental injustice in subsidized housing
- Effect of popular opinion on the implementation of Supreme Court decisions

Visit the AP Research student home page at [**apstudent.org/research**](https://apstudent.org/research)

AP CAPSTONE ARTIFACTS



Team Multimedia Presentation
- *investigating an issue and researching proposed solutions through a critical lens*

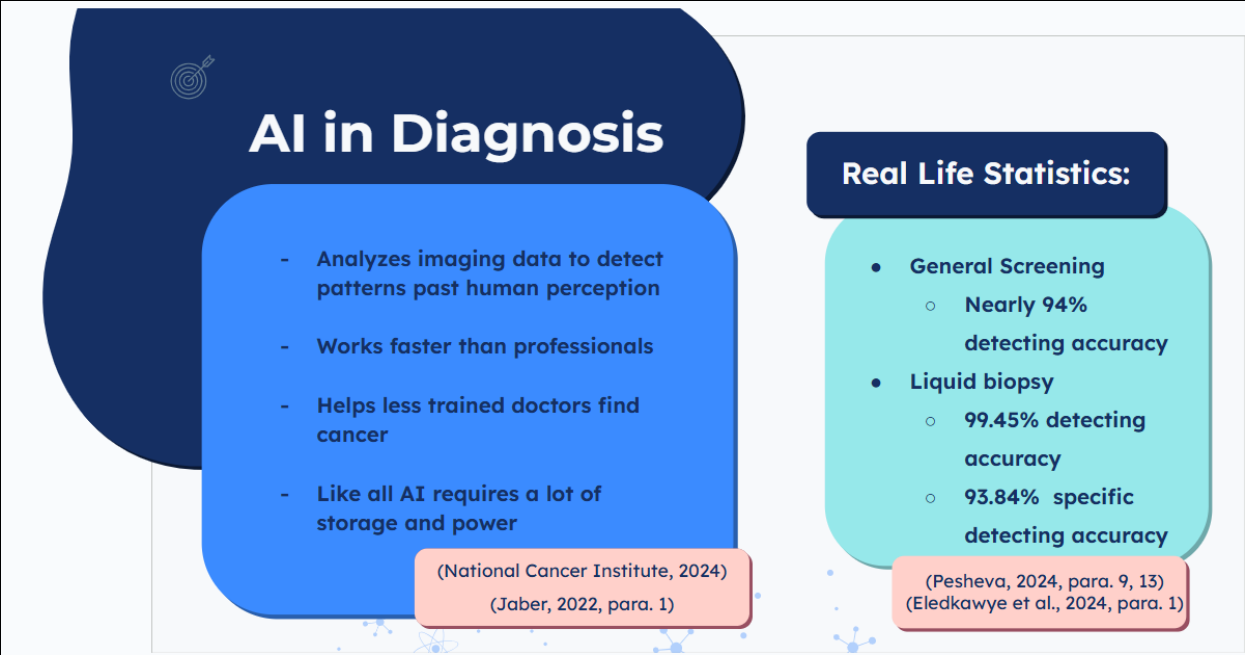


Signposting presentation content



Discussing benefits of proposed solution

AP CAPSTONE ARTIFACTS



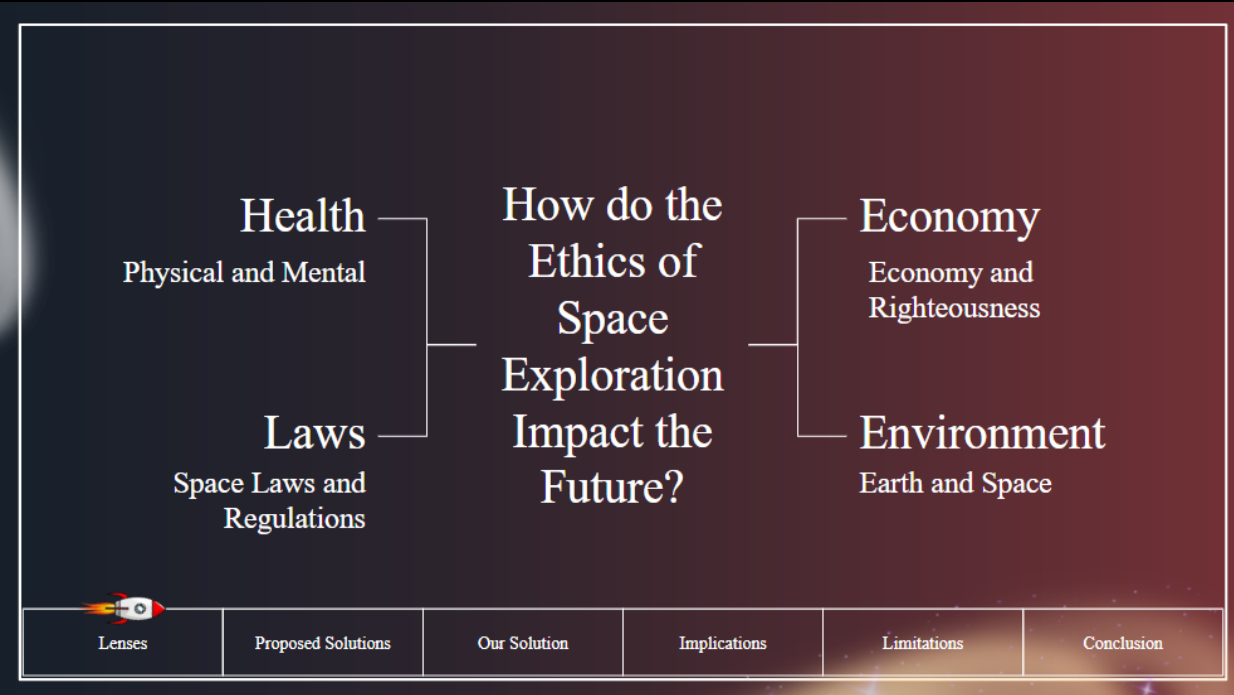
Samples of student work from Team Multimedia Presentations

“No one is born hating another person because of the colour of his skin, or his background, or his religion.

People must learn to hate, and if they can learn to hate, they can be taught to love, for love comes more naturally to the human heart than its opposite.”

-Nelson Mandela

(Nelson Mandela Quotes We Love | unfoundation.org)



AP CAPSTONE ARTIFACTS



Samples of student work from Team
Multimedia Presentations

Social Media and its Impact on Desensitization

- Vicarious Racism profoundly impacts youth, embedding it deep within society's psyche.



([nature.com](https://www.nature.com))

([nih.gov](https://www.nih.gov)).

Historical context

RACE

A social construct?

Classifies groups of people based on...

Geography

History

Politics

Economy

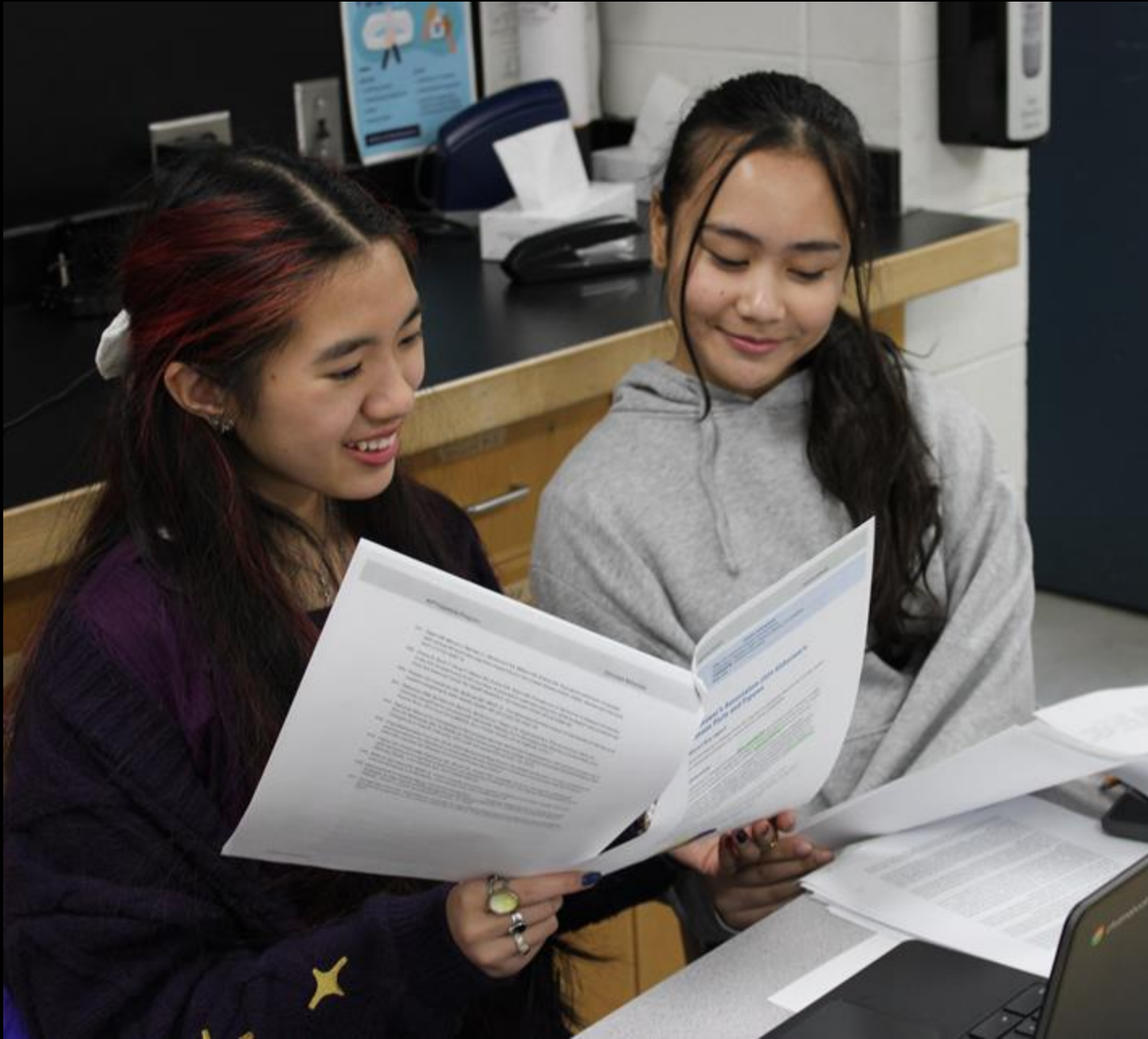
Physical Characteristics

Social/Cultural Elements

([Queen's Journal](https://www.queensjournal.com))

([Canadian Human Rights Commission](https://www.chrc-ccr.ca))

AP CAPSTONE ARTIFACTS



AP CAPSTONE ARTIFACTS

TMP Group Expectations/Roles

1. Complete work on time. Work when needed!
2. Use time effectively! Work in class, don't leave it for home.
3. Work outside of class when needed
4. Daily check-in (keep in communication in and out of class)
5. Critique honestly, consistently and respectfully
6. Take breaks when needed (Your health comes before work)

If you don't:

A group talking-to so we do our best work on this project!!

Group roles:

Zahra: Recorder!

- How censorship of gender is affected by other perspectives

Finn: General quality! (overall feedback for presentation etc)

- Censorship effect on education

Elli: aesthetics

- BOOKS! Banning/challenging books.

Aleksei: Fact checker/citation person...

- Modern media

Students learn to set group norms, roles, and expectations when tackling a collaborative research task

THURSDAY, DECEMBER 5

- INDIVIDUAL WORK
- DISCUSSED TMP
 - MADE OUTLINE
 - SET RELEVANCE, IMPORTANCE, ETC
 - HOOK!!! EXPLAIN WHAT CENSORSHIP IS, HOW MISOGYNISTIC VIEWS IMPACT CENSORSHIP, INTRODUCE A LACK OF POLICY AND ESTABLISH A SOLUTION EARLY ON.
 - PERSPECTIVES
 - ELLIOTTE, ALEKSEI AND FINN IRR
 - INTERSECTIONALITY
 - ZAHRA'S IRR TO CONNECT IT TO REAL WORLD
 - SOLUTION!
 - GOV. POLICY, DISCUSS IT IN TERMS OF THE STAKEHOLDERS IDENTIFIED
 - CONCLUSION!
 - WENT OVER IRRs
 - GROUP ROLES
 - ALEKSEI
 - CITATIONS + FACT CHECK
 - PERSPECTIVE
 - GENDER-BASED CENSORSHIP IN MODERN MEDIA + STAKEHOLDERS
 - CONCLUSION
 - ELLIOTTE
 - MAKE SLIDES PRETTY
 - INTRODUCTION
 - PERSPECTIVE

Students learn to distill broad research into meaningful, evidence-based arguments

WHY TAKE AP CAPSTONE?

- Students stand out on university applications because they demonstrate the critical thinking, communication, and research skills associated with AP Capstone
- Students stand out in interviews because of the confidence, expertise and passion they demonstrate
- University admissions recognize that AP Capstone students know how to build evidence-based arguments, apply research methods, work in teams, deliver professional presentations, and complete long-term academic projects
- Students gain skills and confidence related to independent and team research and critical thinking

WHY TAKE AP COURSES?

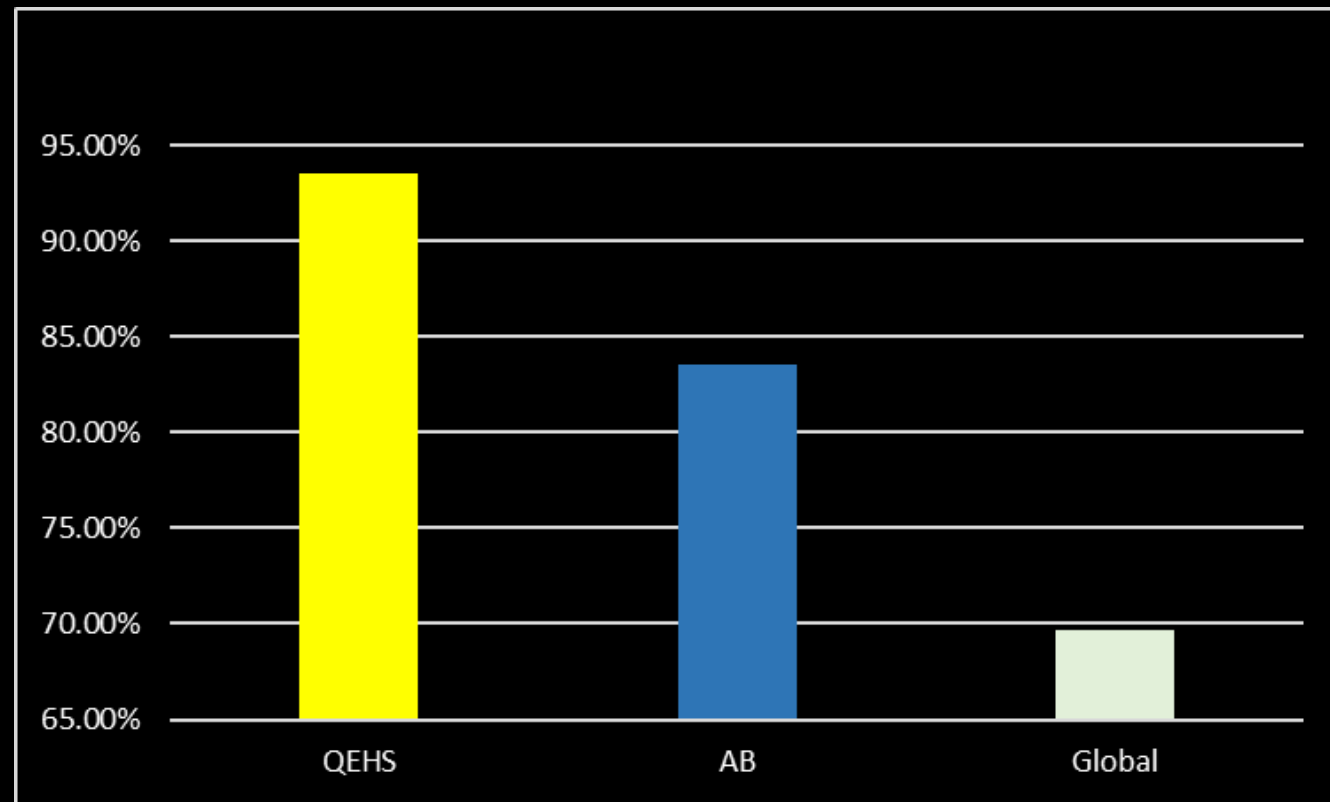
National Research Project Results:

- With only one AP exam, if students scored a three or higher, they outperform their peers by over 11% at the U of A
- Retention from first to second-year goes up by 7% at UBC
- Students are 13% more likely to graduate in six years or less

Additional research:

- Higher first-year university grades (Beard, Hsu, Ewing, Godfrey, 2019)
- Higher performance in subsequent courses in the subject area of AP Exam (Wyatt, Jagesic, Godfrey, 2018)
- Higher 4-year graduation rate (Mattern, Marini, Shaw, 2013)

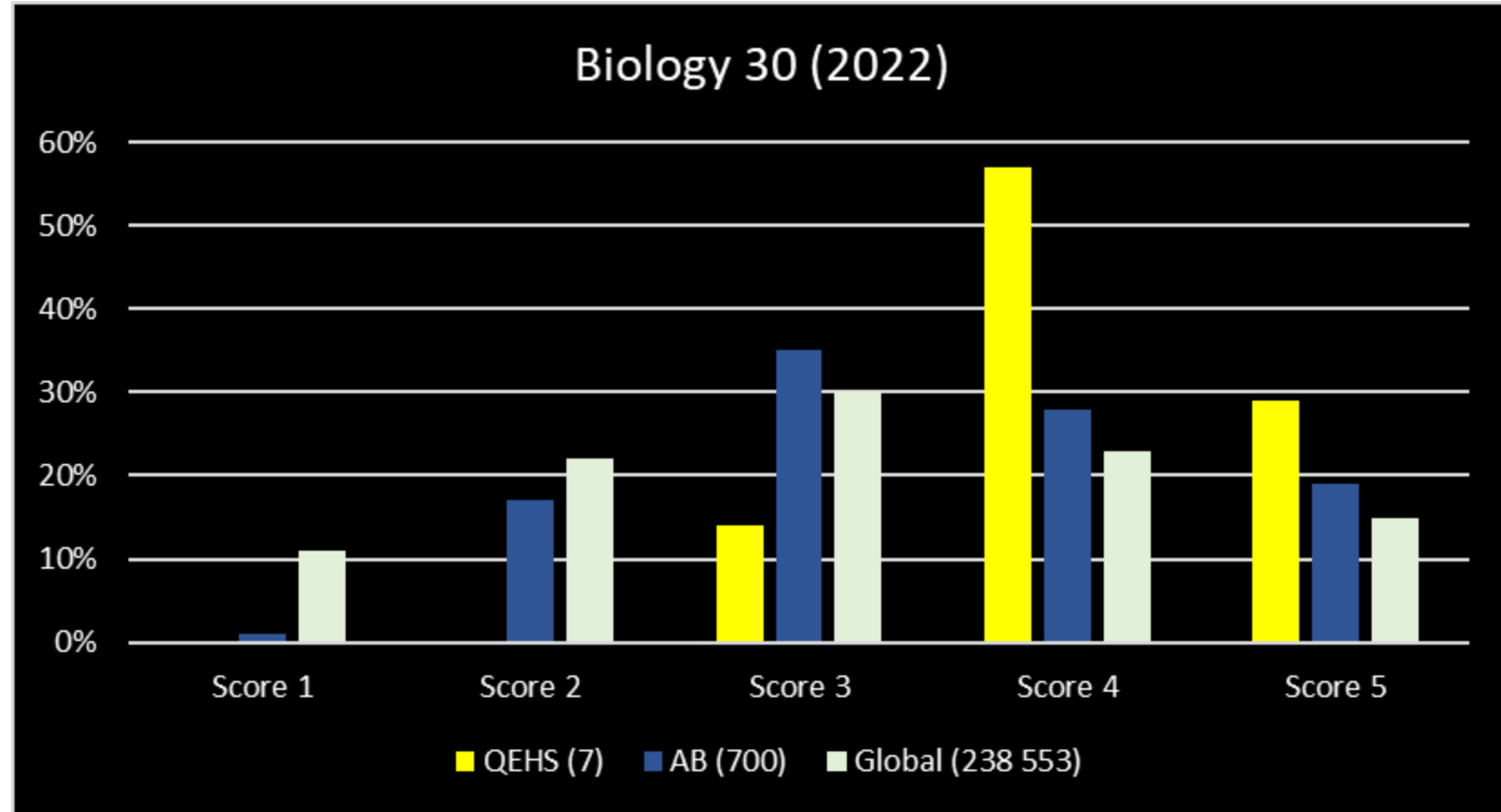
QEHS AP RESULTS



WEIGHTED COMPARATIVE AVERAGE OF SCORES
OF 3 - OR - HIGHER

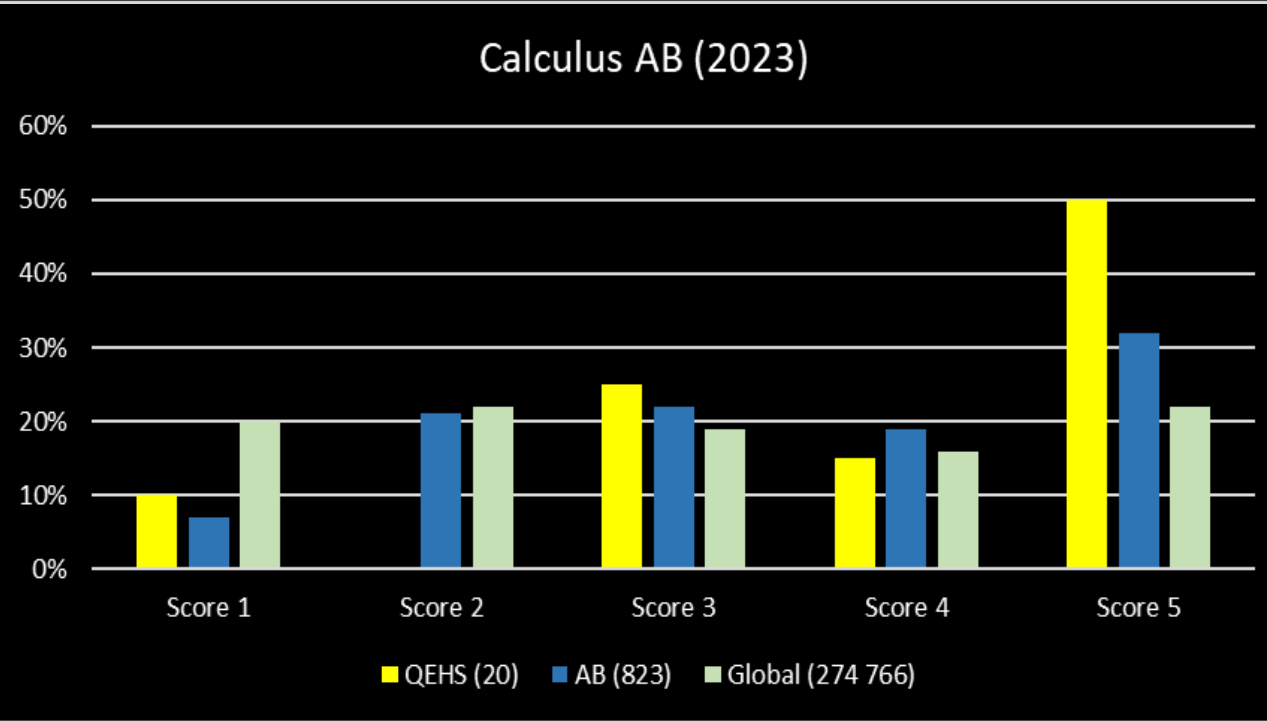
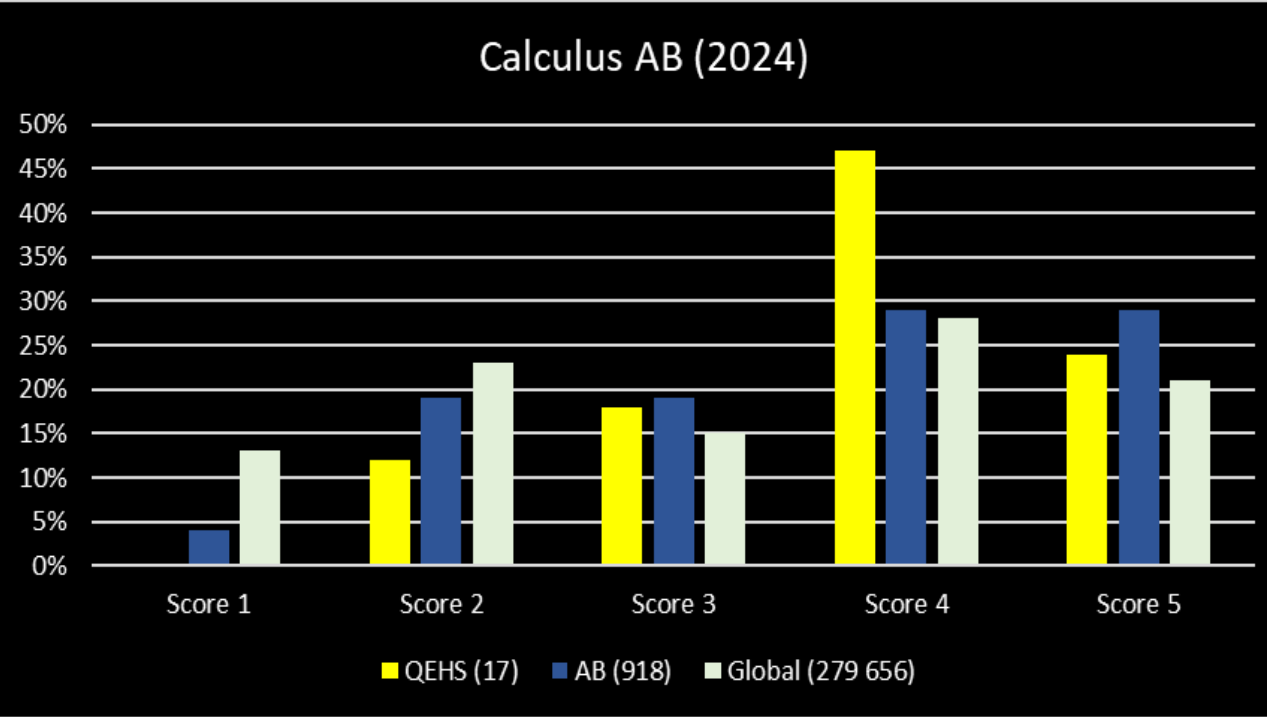
BIOLOGY AP

	Mean (2022)	3+ (2022)
QEHS	4.14	100.00%
AB	3.46	82.00%
Global	3.10	67.80%



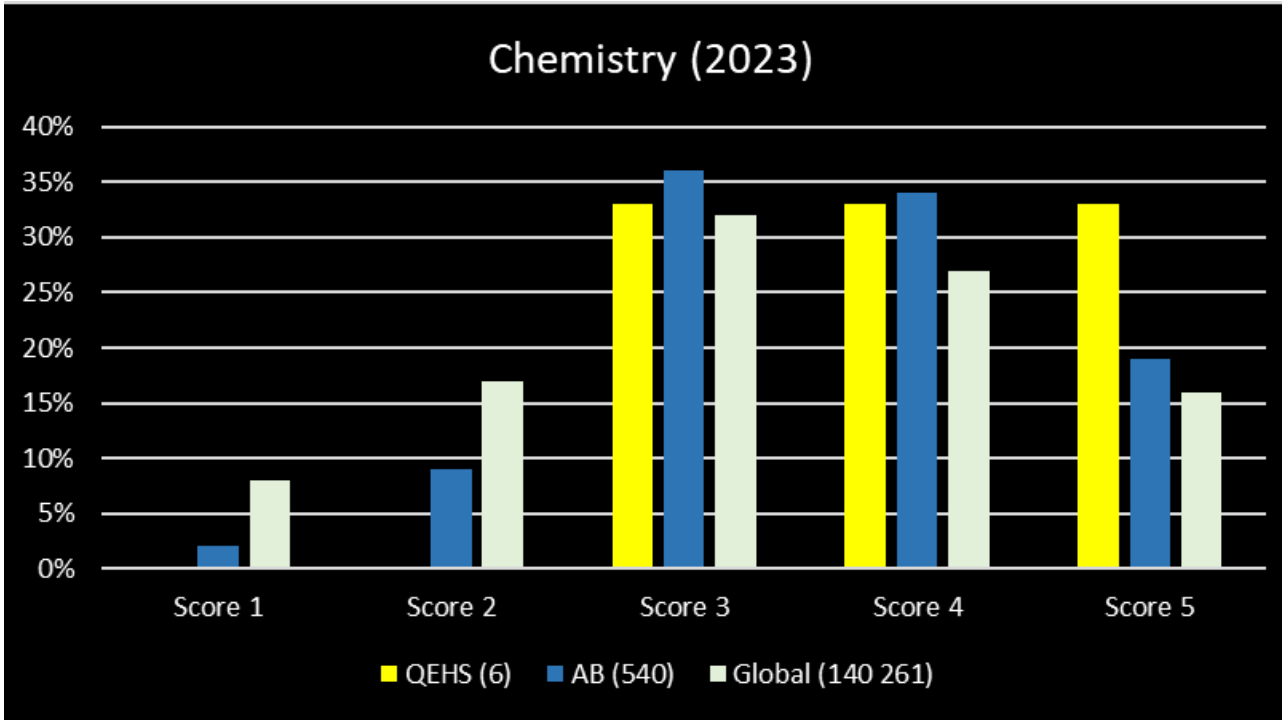
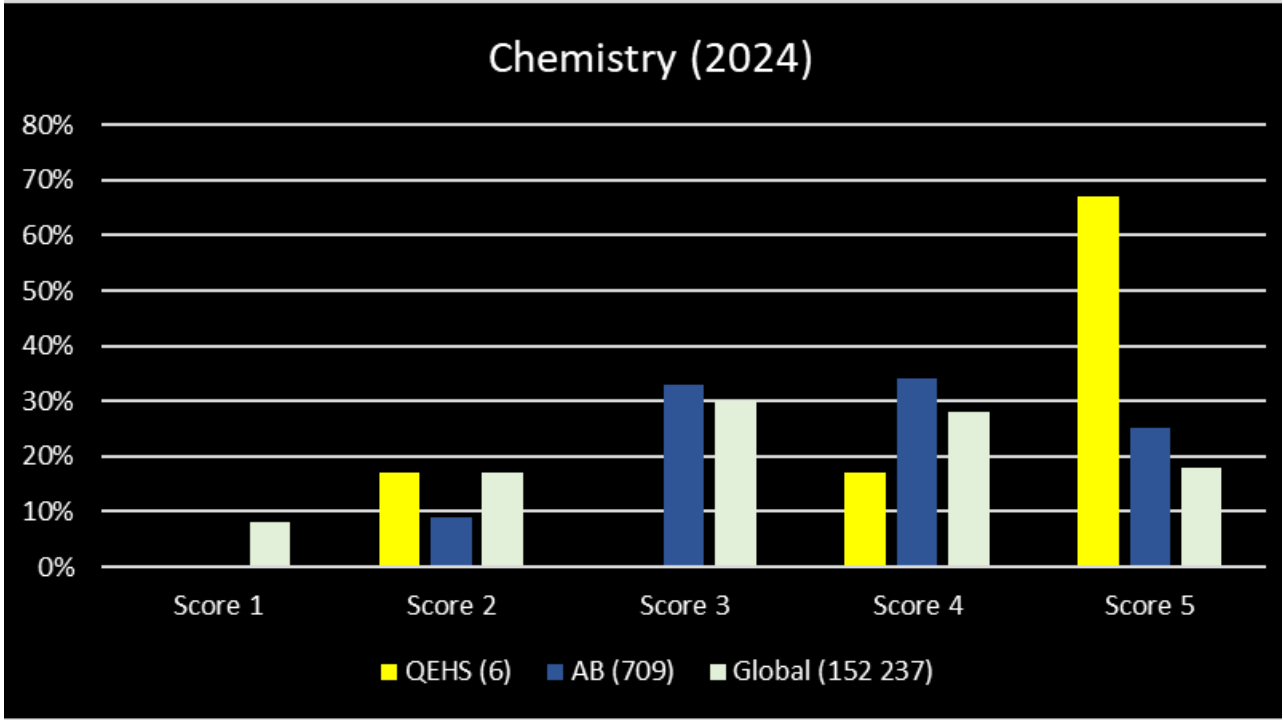
CALCULUS AB

	Mean (2024)	3+ (2024)	Mean (2023)	3+ (2023)
QEHS	3.82	88.20%	3.95	90.00%
AB	3.59	76.80%	3.49	72.80%
Global	3.22	64.50%	2.99	58.00%



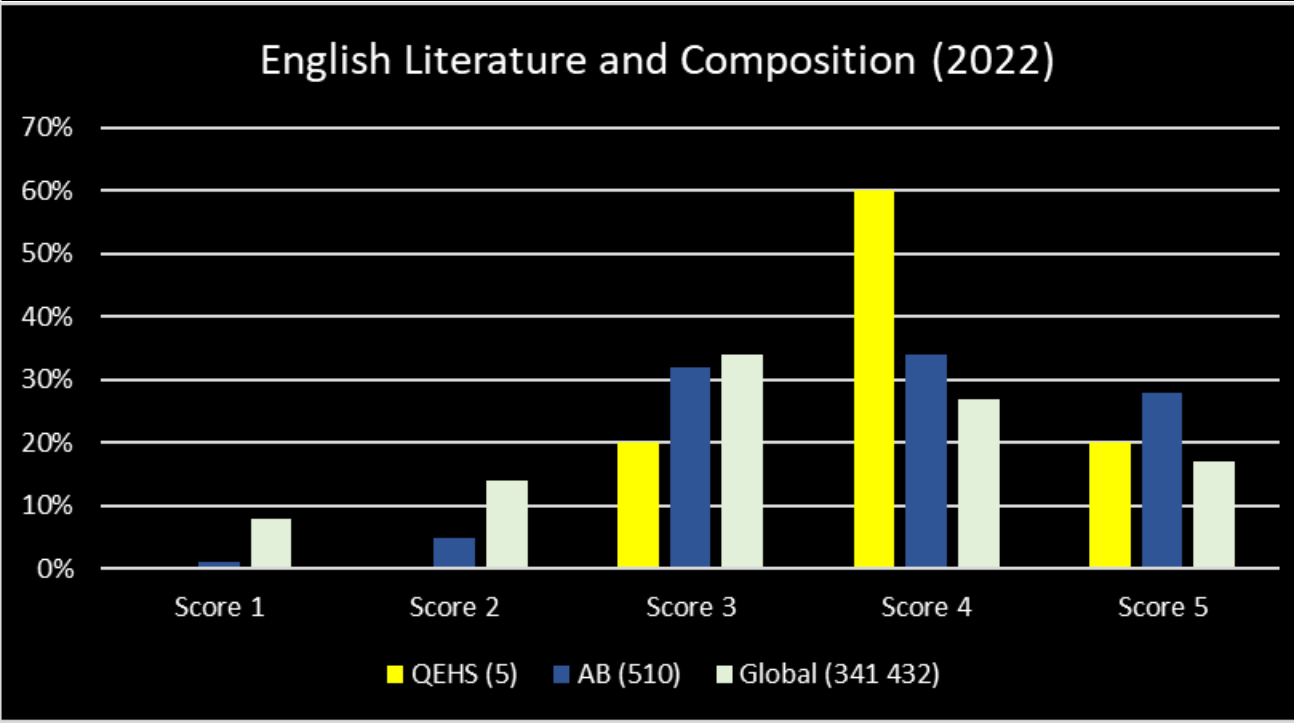
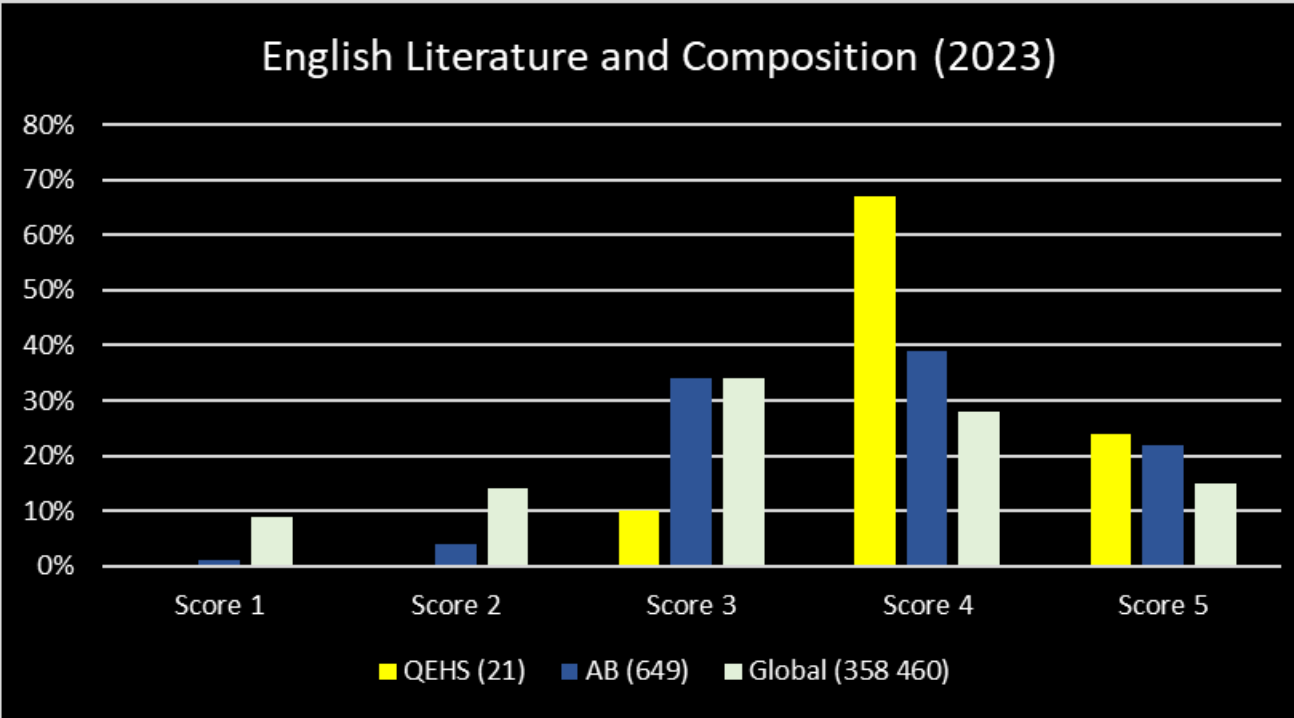
CHEMISTRY AP

	Mean (2024)	3+ (2024)	Mean (2023)	3+ (2023)
QEHS	4.33	83.30%	4.00	100.00%
AB	3.73	90.80%	3.58	88.50%
Global	3.31	75.70%	3.27	75.20%



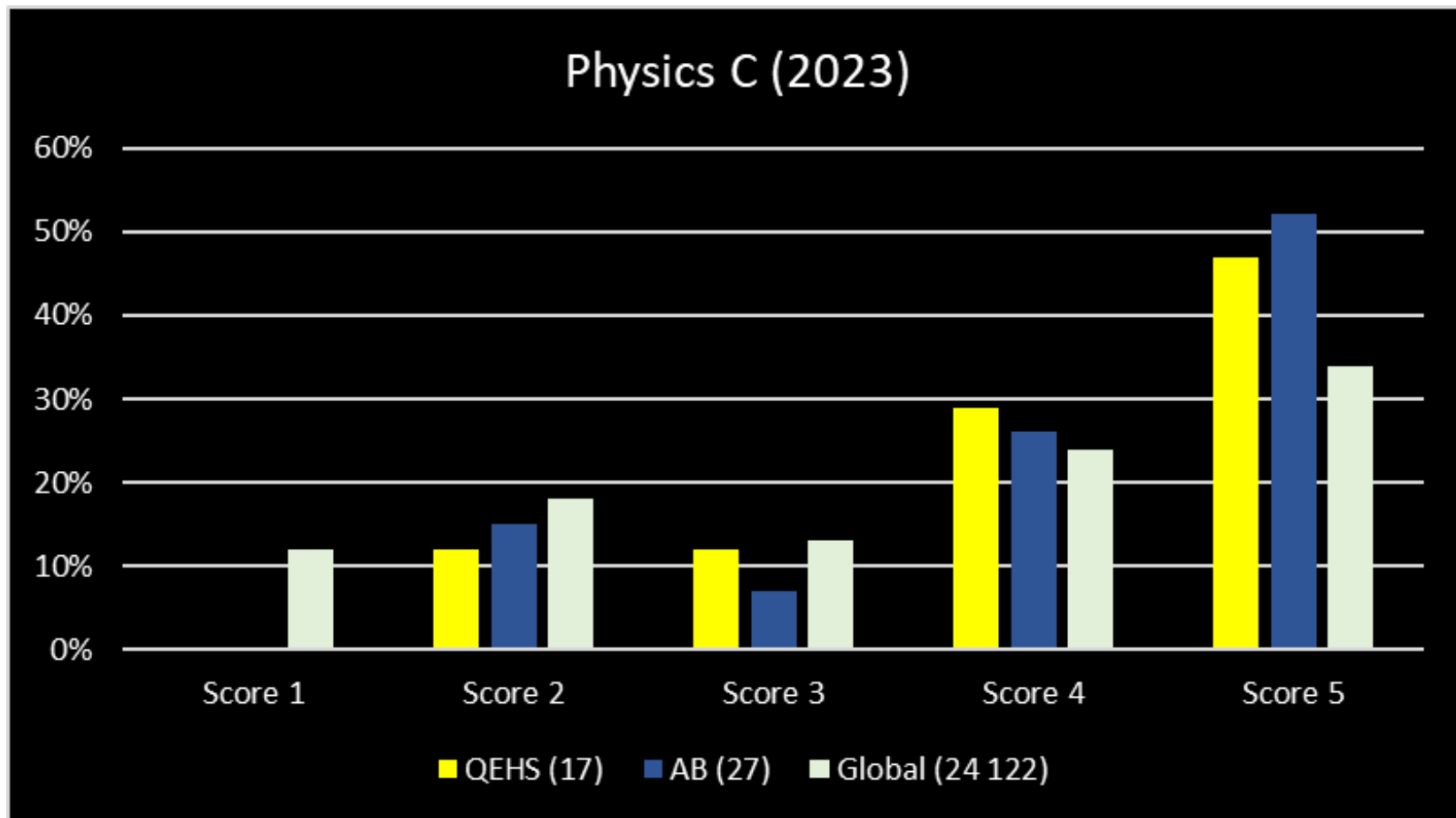
ENGLISH AP

	Mean (2023)	3+ (2023)	Mean (2022)	3+ (2022)
QEHS	4.14	100.00%	4.00	100.00%
AB	3.77	94.60%	3.82	93.90%
Global	3.26	77.10%	3.31	77.90%



PHYSICS C

	Mean (2023)	3+ (2023)
QEHS	4.12	88.20%
AB	4.15	85.20%
Global	3.50	70.50%



WHY TAKE AP COURSES?

National Survey of 465 2nd-year university Canadian students:

- 93% said taking at least one AP course reduced the stress of their first year of university
- 94% said that AP gave them an advantage over peers in the same class
- 98% said that they would take AP again in high school if they had the chance

AP VS IB:

University of Calgary (U of C):

Provides credit for 74% more courses than IB does

University of British Columbia (UBC):

Provides credit for 48% more course than IB does

Top* Canadian universities (*U of T, McGill, Queen's, Western Ontario, etc.)

Provides credit for 54% more AP courses compared to IB

AP VS IB CONTINUED...

○ University of Alberta:

AP Course	Credit Received	IB Course	Credit Received
MATH AP AB	Math 114 (3)	IB Math (SL)	No credit
Math AP BC (Advanced)	Math 100 (3) – for engineers only	No course equivalent taught in most schools	No credit
Physics AP	Phys 124 (3)	IB Physics (SL)	Phys 124 (3)
Chemistry AP	No credit	IB Chem (SL)	No credit
Biology AP	Any 100-level Biol course (3)	IB Biology (HL)	Biol 107 (3)

- At Queen's University: Calculus AP receives full credit, IB SL receives zero
- At U of C: AP Physics C (only available at Queen E) receives credit in Physics 259 (for engineers only) , no IB equivalent

AP AT UNIVERSITY:

- U of A, UBC, and U of C – are looking at the holistic student, so a score on an AP exam will never be a disadvantage; they will consider the most advantageous score for the student's application
- The U of A's AP-exam equivalency is:
5: 96%, 4: 86%, 3: 76%, 2: 65%
- U of A, UBC, U of T, Dalhousie, and UNB are actively recruiting AP Capstone students

WHAT DO THE UNIVERSITIES THINK?

"Participation in AP courses has fostered the ability of students to succeed in college and it's an important strategy to be more competitive in the global marketplace."

— Stephen Greenfield, Emeritus Professor of Mathematics,
Rutgers University

"I think the misconception is AP is just for acceleration and getting credits, but it's deeper than that. ... In our institution, we see students who received a 3, 4, or 5 (on AP Exams) **do much better in persistence and graduation.**"

— Douglas Christiansen, Vice Provost for University Enrollment
Affairs, Dean of Admissions & Financial Aid,
Vanderbilt University

WHAT DO FORMER QEHS STUDENTS THINK?

The AP Program at QE prepared me very well for university in multiple ways.

I learned how to manage my time properly and develop good study habits, both critical skills when it comes to navigating university life. Even though the course load was heavy for my AP classes, the class sizes at QE were small enough so I could get one-on-one help from teachers when needed.

I cannot stress enough how important it is to get a solid foundation while still in high school. In university, life moves very quickly with the constant stream of labs, assignments, projects, and tests. You don't have time to go back and relearn the fundamentals while keeping up with the new concepts being taught.

One bit of advice I would give to current students thinking of continuing on to university would be to enroll in at least one AP class while in high school. AP classes save so much valuable time, effort, and money once in university. One less class can equate to over 12 hours of time saved each week if you factor in lecture time, homework, labs, test prep and group assignments.

I'm very grateful for how well QE prepared me for university, the amazing teachers who shared their passions with their students and the variety of challenging courses offered that not only kept me competitive in applying to my top choice but also prepared me for the rigour of post-secondary studies. *IA – QEHS Class of 2024*

WHAT DO OUR STUDENTS THINK?

AP helps us learn to think critically; we are taught to evaluate sources and be mindful of the biases, lenses and opinions we all have.

- B.B. Grade 11

Students could be assigned both leader and follower roles in various tasks throughout the course. - R.F. Grade 10

Units relating to real world issues, such as the Anthropocene allowed students to understand current issues in society and the contributions they can make as informed citizens. - S.M. Grade 10

The TMP project (Capstone) helped develop teamwork and speaking skills, which are very useful skills in most occupations as well as being a useful skill in general. - A.S. Grade 10

During our TMP in Capstone, when decisions needed to be made and the group had conflict, it was essential for groups to come to consensus without direct help from a teacher. - G.A. Grade 10

THE QEHS AP EXPERIENCE: *ADVANTAGES OF AP AT QEHS:*

- Flexibility with course selection so that registration can be based on interest and passion; take next level courses when you're ready
- Ability to take courses that are ONLY offered at QEHS that have direct equivalents at university (AP Capstone, AP Physics C)
- Smaller class sizes, more consistency with teachers leads to increased opportunities for growth and mentorship
- Math 10C does not need to be taken again in grade 10



