

Pre-Calculus and Honors Pre-Calculus Resource Purchase

Current State

Grades 6-12 Grade Requirement Courses

- Using Big Ideas through Cengage
- Adoption of Algebra 1 in 2018
- Adoption for grades 6-8, Geometry, and Algebra 2 in 2020

Precalculus

- Precalculus has not had a common curriculum resource since the birth of Bloomfield Hills High School in 2013.
- Assignments and assessments have been teacher created.

Process

- We looked at two resources. One from Savvas (Demana) and the other from Cengage (Larson).
- All Precalculus Teachers looked at the same two resources. These teachers also teach either Algebra 2 or Calculus, so they have a firm understanding of where students are coming from and where they are going.
- All teachers received training on how to use each of the resources.
- Students completed teacher-generated assignments using the an online platform.
- Students had access to online textbook, online assignment platform and (Cengage Only) example problems connected to assigned problems.
- Did not use video resources because we have Precalculus teacher that produces high-quality videos.



Student Feedback

- Cengage online component was easier to navigate than Savvas.
- Positive feedback about Cengage example problem button.
- Some problems were frustrating because students knew the answer but didn't know how to provide solution.

Teacher Feedback

- Unit by unit, section by section, the two books cover very similar content.
- Cengage has a more flexible platform with lots of styles of math questions (fill in blank, type equation, justify in writing, give an answer).
- Cengage has more options how students can give answer (teacher can select error tolerance).
- Savvas online platform is disorganized.
 - Ex: problems embedded in incorrect unit.



Purchase Details

- 225 digital access licenses
 - We would not purchase licenses for our extension classes
- 5 teacher accounts
- 25 print textbooks for students who require a print text

New Courses at BHHS

IB Psychology

At the core of the DP psychology course is an introduction to three different approaches to understanding behaviour: **the biological, cognitive and sociocultural approaches**.

Students study and critically evaluate the knowledge, concepts, theories and research that have developed the understanding in these fields.

This will be a **two-year course offered at the HL** (higher level) and allows full IB Diploma students options in the Group 3 Individuals and Societies beyond the history course.

The course also offers an alternative to the AP Psychology with an expanded scope of content, assessments, and applications.

At this time, there is one section of this course for Fall 2023. This course will be taught by Kathleen Small.

Math Elective: Algebra 2 Prep

Algebra 2 Prep is an optional one semester elective course taken concurrently with Geometry in a student's 9th or 10th grade year.

The course content reviews crucial Algebra 1 content in preparation for Algebra 2.

The course also previews content such as trigonometry, which is introduced in Geometry and revisited in Algebra 2.

Course grade is determined through class assignments and assessments.

This course is optional and considered an accelerator course (not remedial) and does not replace any previous math course grades.

There is current one section of this course running each semester.

The following scenarios might help students and families understand who might sign up for this class:

- A current 8th grader challenged themselves with Algebra 1, passed the course, but has not achieved mastery. Rather than repeating an entire year of Algebra 1, this student could stay on an advanced trajectory with this one semester class to firm up those Algebra 1 skills that will be critical for success in Algebra 2, whether it be honors or regular.
- A student who took Math 8, Algebra 1 in 9th grade, Geometry in 10th, and is now ready for a challenge in moving to Honors Algebra 2 as a junior could take this class to get ready for the additional challenge honors will bring.
- A student who took Math 8, Algebra 1 in 9th Grade, and is considering the IB Programme. This class would help this student prepare for Math Application and Interpretations to be taken in their junior year.
- A student who would traditionally take Algebra 2 and Algebra 2 Extension might take this course proactively while taking Geometry in an effort to free up space in their schedule and avoid taking Algebra 2 Extension.
- A student who might traditionally take Algebra 2A and Algebra 2B could take this course in order to complete the standard Algebra 2 course over one year instead of two.

BHHS Graduation Requirements

Graduation Requirements for BHHS

In June, Governor Whitmer signed [House Bill no. 5190](#) into law. This bill changes the Michigan Merit Curriculum for “pupils entering grade 8 before 2023” and requires “**a course in financial literacy**”.

- 1) Taking the financial literacy class as a 0.5 credit math class
- 2) Providing a personal economics course that fulfills the economics requirement and the financial literacy requirement. This would be a new course and would need to meet the standards and requirements set forth by MDE which have not yet been published.
- 3) Changing BHS requirements to allow the financial literacy class to be used in lieu of 0.5 visual arts or 0.5 world language. This decision cannot be made until the MDE releases the standards and requirements for this course.

GRADUATION REQUIREMENTS

Effective for the class of 2023 and beyond

CONTENT AREA	CREDITS NEEDED	EXPLANATION OF CREDITS
English	4	4 credits
Math	4	Credits must include: Algebra I, Geometry, and Algebra II 1 math course must be taken during the senior year. <i>The Personal Financial Literacy course could be 0.5 of this 1.0 credit.</i>
Science	3	1 credit of Biology 1 credit of Chemistry of Earth's Systems 1 Science elective credit (Physics of the Universe is recommended)
Social Studies	3	1 credit of World History & Geography 1 credit of U.S. History & Geography 0.5 credit in Civics 0.5 credit in Economics
Health & Physical Education	2	0.5 credit in Health Education 1.5 elective credit
Visual, Performing and Applied Arts	1	1 credit in Visual, Performing, or Applied Arts
World Languages	2	2 credits of World Language
Personal Financial Literacy*	0.5	0.5 credit course *beginning with the graduation class of 2027
Additional Credits	8.5 to 11	Note: "additional" will specify content areas (e.g. communications, arts, etc)
Technical Competency	All students must take one computer-based course during grades 9-12 (This requirement may be met by courses identified in most content areas).	
Online Learning Experience	All students must have an online learning experience before graduation. (This requirement can be satisfied by experiences within a regular course).	
Community Service	Minimum one Service As Action experience per year	
State of Michigan Assessment	ALL STUDENTS ARE REQUIRED TO TAKE THE STATE-REQUIRED ASSESSMENTS PRIOR TO GRADUATION.	
Middle Years Program Personal Project	ALL STUDENTS ARE REQUIRED TO COMPLETE THE PERSONAL PROJECT.	
TOTAL CREDITS REQUIRED	28	

Graduation Requirements for BHHS

Request removal of Advisory as a Graduation Requirement

Current situation:

- Virtual Advisory in 2021-22 became an obstacle to graduation as many students did not meet the course requirements for credit even with a reduction in the “pass” requirements and are in jeopardy of not graduating if the requirement for graduation remains
- The flexibility of virtual advisory created supervision concerns, attendance, pupil accounting, and record keeping challenges including funding implications
- The social-emotional learning that was a key curriculum element of advisory is now embedded in all high school courses
- Only 18% of students actively participated in Advisory on a weekly average either online (virtually) or in-person
- 36% of all students on average were tardy to the class after Advisory
- Students do not receive targeted and structured support in the current Advisory program, rather support is dependent on if students seek assistance from their teacher (passive support)

Additional Advisory Information

Concerns and Considerations with Advisory

- **Supervision Concerns:** With students attending Advisory both in-person and virtually, the school is unable to identify which students are in the building in the case of an emergency
- **Engagement and Tardiness:** In the 2021-22 school year, 82% did not actively engage with the course on a weekly basis and 36% students still experienced tardiness to a delayed first period start. This is a safety and academic concern as noted above.
- If Advisory remains as a graduation requirement, it will be **in-person only** in **2022-23** for these reasons

Opportunity Cost

- Advisory equates to 36 hours over the course of a year (36 weeks x 1 hour per week).
 - This is equivalent to a 6 full days of instruction (6 hours per day)
 - Or, 3 full additional classes for EACH course in a student's schedule (4.5 hours per class)
 - By having students in class with their teacher, **all students** have access to additional instructional support, rather than the small number that attend advisory
 - The additional time allows for individual, small group, and back-to-whole group instruction opportunities and informal feedback on student progress

Embedded Student Instructional Support

Student Support in 2022 and beyond (future considerations)

- **Teacher accessibility:** With the new four year contract, teachers at every level arrive at least 10 minutes prior to the start of the school day and stay at least five minutes after the final bell. Additionally, teachers are required to add an additional 15 minutes (either before or after school) each day to be accessible to students. This is new in this contract.
- **Additional captured time in class:** with the equivalent of 3 full classes added to each course each year, students will have additional time in class with the teacher for instructional support that is targeted and structured specifically for the student and the course in individual, small group, and/or informal feedback assessments (active supports)
- **Opportunities for testing or retakes:** Students who used Advisory to take or retake assessments will have opportunities to do this in ways that better reflect their readiness (i.e. not just taking it on Wednesday)
- In **Interdisciplinary Hour** (ninth and tenth grade), students will be assessed three times a year with Fastbridge in A-Reading and A-Math that provides targeted and structured support to the skill development of students (active supports)

Embedded Student Instructional Support

Student Support in 2022 and beyond (future considerations)

- **Learning Strategies** for General Education could be expanded as an elective opportunity (offer more sections) with additional costs to the district. The course curriculum addresses:
 - Note-Taking
 - Math Skills
 - English Language Arts Skills
 - Test Taking Skills
 - Approaches to Learning Strategies
 - Executive Functioning Skills
 - And specific course support if possible

Links for additional information:

[IB Psychology](#)

[Current Course Offerings for Math 8 and Beyond](#)

[Video Presentation for Current Algebra 1 Students](#)

[Slideshow Presentation for Current Algebra 1 Students](#)

[**New Graduation Requirements for Bloomfield Hills High School**](#)