

Guide to Advanced Learning Options at Bothell High School

This addendum to the course catalog was written by the HiCap Parents Council, and is not sponsored or approved by the school district. This document is intended to provide additional information for incoming high school students designated as “Highly Capable” or for students who have advanced learning needs in one or more subject areas.

This document does NOT cover all graduation requirements. You must do your own research to confirm that particular courses and progressions will work for your student’s individual situation, and for the colleges they intend to consider. Official registration information and the BHS course catalog can be found here:

<https://resources.finalseite.net/images/v1551296588/nsdorg/zqdgchp6jx1xygraewvu/BHS2019-20CourseBookPDF.pdf>

The Northshore School District can (and often does) change course offerings and policies year to year, so this document may become out of date. It is current as to the best of our knowledge on March 6, 2019. Any errors or updates should be reported to council@hcparents.org. The most recently updated copy can be found on <http://www.hcparents.org> in the “Files” area.

A Note for HiCap Students Coming from AAP

For HiCap students coming from the middle school Advanced Academics Program (AAP), the shift to high school comes with a major shift in how highly capable services are delivered to students. The AAP program is a cohort-based program that keeps HiCap students together for their academic classes. In comparison, high school highly capable services are provided through pre-AP classes and especially, through acceleration to higher level courses, which are often Advanced Placement (AP) or College in the High School (CHS) courses. Pre-AP, AP, and CHS classes are open enrollment, meaning any student can enroll in them. This means that in high school, your highly capable freshman may find themselves in academic classes (as well as electives) with sophomores, juniors, and maybe even seniors, depending on the courses they choose.

9 th grade = freshman
10 th grade = sophomore
11 th grade = junior
12 th grade = senior

Quick Reference

Another major difference for high school is that there is much more variation between individual students on what courses they take, what years they take them, and even what order they take classes. This is obviously true for electives, but is true also for some academic courses, particularly in the sciences. Grade levels and pre-requisites listed in the course catalog are the guideline, but exceptions can be made in many cases. Don’t be afraid to ask your counselor for an exception if it makes sense in your individual case.

The high school is also much bigger than a middle school, and so there are many more sections of a given course, so it’s unlikely for more than a handful of HiCap kids to end up in the same class section. Coincidental schedule alignment is rare.

Thinking big picture, in elementary school, HiCap students are together for nearly their entire school day in the EAP program. By middle school, HiCap students are cohorted together for their academic classes, but electives are mixed with the general school population. This mixing then further increases in high school, as both academic and

elective courses are mixed with the larger school population. High school gives students an opportunity meet and interact with many other students in their classes, at a time in their social development when they should be best prepared to spread their wings.

All of these factors combine to create a high school HiCap experience that feels very different from the cohort-based middle school AAP program.

Overview

Because high school allows students to follow their interests, there is no single high school course progression that all students follow, nor should there be. The following are considerations for course selection for an advanced student in various topic areas, as well as a few sample 4-year plans for how they might fit together. However, these are merely examples, and each student should be empowered to pick their own path based on their interests, their individual strengths, and their long term goals. There is no “common” or “typical” path.

In particular, HiCap students should NOT feel like they should register for pre-AP, AP, or CHS classes in every subject area, especially if that area is not a strength. Students should be cautious to not sign up for an overly rigorous workload, as homework demands can be intense for some AP and CHS courses. Some AP and CHS courses are also much more rigorous than others. It’s a good idea for students to register for an AP or CHS class during freshman year so that they can better judge workload expectations for future years

NOTE: CHS classes are not accepted at all colleges, especially out of state colleges. These classes are taught at the high school by a Bothell High teacher who is authorized by a specific college and students pay a discounted amount for college tuition. Some 4 year universities require a series of CHS classes to be completed to get any credit. AP Credit is more universally accepted. Please check with the admissions offices of colleges your child is interested in before signing up for CHS classes. Make sure you know which college is giving credit for the specific course being taken. This may affect the transfer credits being accepted. If the credits are not accepted at the college you apply to, the money spent on those credits is wasted. CHS credits at Bothell can be from Edmonds Community College, Cascadia Community College the University of Washington, and Bellevue College.

Note: This document does not describe Running Start options, which would be too numerous to describe.

Running Start allows your student to take free college courses at a local community college or through the WANIC program, and receive college credit alongside their high school diploma. Most Running Start students attend the community college full-time or at least half day, not just for one class at a time (scheduling can be VERY difficult with the high school block schedule.) Generally speaking, AP courses in the high school will typically be more rigorous than a similar Running Start course, and are usually valued more highly by top colleges nationwide. Running Start course credit is usually accepted at in-state public colleges, however private colleges and out-of-state colleges may not accept the credits, or may only accept credits for certain courses. However, if a student desires a course that is not offered in the High School, Running Start may be the best option. This is particularly true for math courses beyond AP Calculus and AP Statistics. There are also some unique programs available through Running Start, such as the ORCA marine biology program in Everett, or the Digipen art, music, and programming courses in Redmond. Typically, only 11th and 12th graders can access Running Start.

English/Language Arts (ELA)

English/Language Arts is one academic area where the advanced course progression is really clear. There are Pre-AP English classes for 9th and 10th graders. At BHS, juniors take AP English Language and Composition, and seniors take AP English Literature and Composition or CHS English, which is made up of 2 semester classes working in conjunction to offer 10 credits from Cascadia College (Eng101 and Eng111). There are also several other English options available for Seniors. These may not be advanced courses, but give other opportunities in career writing, literature and the media, and creative writing. These classes may be available to underclassmen by special request, ask your counselor

UPDATE: A new option for 2019-20 for English/Language Arts is the AP Capstone (AP Seminar/AP Research) series of courses instead of some part of the above progression, typically starting in 10th grade. There is information on the BHS Website about this program, but as of now, it is not yet being offered at BHS. Information can be found here: <https://bothell.nsd.org/academics/advanced-placement-ap-programs>

Social Studies

Only 3 social studies credits are required for high school graduation, so it's common for freshmen to not take a social studies course at all. Or, alternately, they may take AP Human Geography – but note this class does not fulfill a social studies credit, it counts for an elective credit only. Typically, advanced social studies students take AP World History sophomore year, AP US History junior year, and AP Government senior year. AP European History is shown in the Course Catalog, but is not being offered at BHS because they have not had any students sign up for the class. CHS Global Studies via Cascadia Community College is another option to fulfill the Contemporary World Issues requirement for 12th graders.

Math

The math progression in high school continues from middle school; whether your student is on the single-, double-, or triple-jumped path (see Quick Reference inset below), they just continue where they left off. Hence, it is extremely common for advanced math students to be in a math class with upperclassmen, especially up to Pre-calculus, and your student may be one of few HiCap students in the class. The advanced math progression is: Geometry, Algebra 2/Trigonometry, CHS Pre-calculus, AP Calculus AB or CHS Differential Calculus, CHS Calculus III. There is also an AP Statistics course that can be used as a senior year math course (for triple jumpers), or as an elective alongside any other math course, however it is not considered to be as rigorous as the AP Calculus courses. AP Statistics is, however, very useful material to know and is a perfectly viable option for 12th graders.

Will your student run out of available math courses? Be aware that some colleges (including many WA state schools, some highly selective schools, some degree programs within a college, and some honors programs) require a math or “quantitative” course taken every year of high school, including senior year. Even if it isn't strictly required, it may be strongly preferred; a college application without a math course taken senior year may be at a significant disadvantage, particularly for a STEM-oriented degree or college. We've seen students

Single-jump = Algebra in 8th grade

Double-jump = Algebra in 7th grade

Triple-jump = Algebra in 6th grade

Quick Reference

surprised that their college application was denied specifically because the student didn't take a math course senior year. This is another case where each college has their own policies, so you'll need to do your research. Note that this may be a problem even if you bring middle school math credits forward to the high school transcript – the transcript lists which grade level each course was taken. AP Physics 1/2 can sometimes count as a math course, but be sure to check with colleges you are considering to be sure. If your student has run out of math courses at BHS, Running Start is an option, as are online courses.

Science

Historically, BHS has not allowed students to take AP Biology without taking pre-requisites of Biology and Chemistry first. This is different than other schools in the district. The College Board recommends Biology to be a prerequisite for AP Biology, and BHS feels it is important and in student's best interest to follow these recommendations. BHS suggests Highly Capable students in 9th grade choose from Biology, Chemistry, AP Physics 1 or AP Environmental Science. Any other courses would require you to talk to the counselor for an exception.

AP Physics 1 is available to any student, including freshmen, and has no pre-requisite, other than a co-requisite in math that the student be taking Algebra 2/Trigonometry in parallel. Note, however, that some students have found that the math topics they need in AP Physics 1 have not yet been covered in the Algebra 2/Trig class when they need them. For this reason, we encourage students to consider finishing Algebra 2/Trigonometry before taking AP Physics 1, though a particularly mathy student may not find this to be a problem. There is no need to take regular Physics before AP Physics 1. A second year of algebra-based physics is available as AP Physics 2. Note that BHS does not offer AP Physics C (calculus-based physics).

Another science option typically used by seniors is Science Olympiad Topic Research, which allows some independent research.

Note that only 3 science credits are required for graduation, so it is not necessary to take a science course all 4 years of high school. However, students interested in pursuing a STEM degree in college would be wise to take 4 years of science. Also, although this is no longer a high school graduation requirement, note that some colleges also require that students take a full-year, straight Biology course (AP Environmental Science and Marine Biology don't count).

World Languages

Several world languages are offered at BHS, including French, Spanish, German, Japanese, and American Sign Language (ASL is a particularly good choice for dysgraphic/dyslexic students, however note that not all colleges accept ASL as a foreign language. Look it up here: aslcollege.com). 3rd year French, Spanish, German, and Japanese are offered as College-in-the-High-School (CHS) courses for college credit. 4th year French, Spanish, German, and Japanese also offered as CHS..

While graduation requirements only require 2 years of study of a world language, most colleges require (or prefer) 3 years of study in the same language, so this is recommended for most advanced students. Some colleges require (or prefer) 4 years of world language study.

Visual/Performing Arts

There are several advanced offerings throughout the arts. Generally, advanced level courses are available as a progression for upperclassmen, and it is unusual for freshmen to skip the entry level course, however it can happen in cases of extraordinary skill. In orchestra, most students start in the Concert Orchestra, however exceptionally advanced musicians can audition to join the Chamber Orchestra. In band, most students play in the Symphonic Band (which is also the Marching Band at all football and some basketball games), however the Wind Ensemble, Percussion Ensemble, and Jazz Band are also available for advanced students. There are classes labelled as “advanced” for drama, guitar, ceramics, stained glass, etc. but these are typically just second semester classes in that topic area.

The Visual/Performing Arts department also offers AP Music Theory.

Career & Technical Education (CTE)

There are several advanced courses and course progressions in the CTE courses. Notably, students interested in business can pursue 2 years of accounting courses. Future Business Leaders of America (FBLA) is a club that is very active at Bothell and consists of many different types of competitions. Many CTE courses offer CHS credits. The Microsoft Applications course enables students to earn their Microsoft Office Specialist certification in Word, Excel, Power Point and Access.

Two AP classes are available, which are both good choices for freshmen interested in exploring those topics: AP Psychology and AP Computer Science Principles. Note that AP Psychology does not fulfill a social studies credit requirement. It is an elective or CTE credit. AP Psychology is a good “first AP Course” for freshman, and covers some topics on cognition, brain development, and learning that is useful background for kids. AP Computer Science Principles has an exploratory curriculum, that gives a broadened understanding of the use of computers in diverse majors and careers. Those wanting to earn AP credit will submit two “through-course performance tasks” to the College Board for grading, and will take a multiple-choice end-of-year exam.

Project Lead the Way Engineering Pathway

Bothell High is in the process of instituting Project Lead The Way. Students can begin the pathway at any time. The classes are as follows:

Year 1 - Introduction to Engineering Design

Year 2 - Principals of Engineering

Year 3 - Computer Integrated Manufacturing (Starting in 2020-2021)

Year 4 - Engineering Design and Development (Starting in 2020-2021)

The purpose of this pathway is to give access to STEM classes and allow students interested in Engineering to explore this career path. More information can be found at: <https://www.pltw.org/our-programs/pltw-engineering>

The AP Capstone Program

College Board now offers the AP Capstone program. This is intended to be a similar capstone experience as the “Theory of Knowledge” course and essay that is a cornerstone of the International Baccalaureate (IB) program offered at Inglemoor High School. (Learn more about IB here: inglemoor.nsd.org/academics/ib) AP Capstone is a 2-year course sequence that teaches research skills and culminates in a large humanities-based research project. Students would take the AP Seminar (Capstone 1) class first, and then the AP Research (Capstone 2) class the following year. This program is on the BHS website, but classes do not currently show up in the Course Catalog. This is a new program available to schools. This is realistically one to two years out in implementation.

What is the College Board, SAT and ACT?

The College Board is a national organization that runs several important tests and programs that a college-bound student will surely encounter. They run the Scholastic Aptitude Test (SAT), the Preliminary SAT (PSAT) which acts as the National Merit Scholarship Qualifying Test (NMQST), Advanced Placement (AP) tests and course descriptions, and they also offer other college planning resources for students. More info at www.collegeboard.com

Another similar, but separate, organization is ACT.org, which also runs a college entrance test called the American College Test (ACT). Most colleges accept both the ACT or SAT test for college applications.

AP Tests & AP Scholar Awards

Every AP course has an AP exam that goes along with it. AP exams are scheduled to be the same dates and times nationally, and are always the first two weeks in May, regardless of school holidays, snow days, etc. AP exams are graded on a 1-5 scale, where 5 is the highest possible score, and 3 is considered passing.

Northshore school district offers discounted prices for AP tests for students with financial need.

The College Board grants AP Scholar Awards for students who take multiple AP courses and score well on the end of year AP exams. Awards accumulate over the 4 years of high school. These awards do not affect high school graduation at all, but they are nice to list on a college application.

Award	Criteria
AP Scholar	Granted to students who receive scores of 3 or higher on 3 or more AP Exams.
AP Scholar with Honor	Granted to students who receive an average score of at least 3.25 on all AP Exams taken, and scores of 3 or higher on 4 or more of these exams.
AP Scholar with Distinction	Granted to students who receive an average score of at least 3.5 on all AP Exams taken, and scores of 3 or higher on 5 or more of these exams.
National AP Scholar	Granted to students in the United States who receive an average score of at least 4 on all AP Exams taken, and scores of 4 or higher on 8 or more of these exams.

More information: <https://apscore.collegeboard.org/scores/ap-awards/ap-scholar-awards>

Online Classes

Before the 7 period day was standard, it was typical for advanced students to take one or more classes online or via summer classes, in order to free up time in their schedule for desired classes. This is especially true for students who want to take a performing arts class all 4 years of high school, such as band, orchestra, or drama. The most common class to do off-campus is Health.

Student athletes who participate on a school sports team can also get a waiver for .25 PE credits for each season of a sport. This means that participating in 4 seasons of any sport (or combination of sports) will satisfy the 1.0 PE requirement. (Students will still need to take Health and Life/Fitness however.) Note that the PE waiver is only permitted for official BHS school sports teams. Outside sports, no matter how rigorous, sadly do not count.

There is a list of WA OSPI approved online course providers here:

<http://www.k12.wa.us/ALD/Providers/ApprovedProviders.aspx>

Note that in any given graduation subject domain (such as Health & Fitness), a max of 50% of credits can be earned outside of BHS.

Locally, NW Liberty School in downtown Woodinville is a common source for both online or offsite courses. The Northshore school district also typically offers some courses over the summer, including some math courses and Health. The regional WANIC program (Washington Network for Innovative Careers) offers many interesting CTE courses as well as Health/Fitness courses over the summer for very low cost, however there is limited space and most classes are filled by lottery. <https://wanic.lwsd.org/academics/summer-courses>

Looking Towards College

Many students are motivated to take AP, Running Start, and College-in-the-High-School (CHS) classes in order to earn college credit. Generally, a 3 or higher is considered a passing score for AP courses, however top colleges may require a 4 or a 5 to award college credit. Running Start and College-in-the-High-School (CHS) courses generally transfer well to public WA state colleges, but may or may not be accepted by private colleges or outside Washington state. Individual colleges have their own rules for which specific classes they will accept, and what AP scores, courses, or grades will count for credit. Top schools will be much more restrictive in what courses and scores they will accept, or you may find that academic courses may be accepted as “elective” credit only. Unfortunately, there are no hard-and-fast rules for which colleges accept what. You will have to look up the policies at the specific colleges your student is considering.

However, remember that the primary reason to take advanced classes is not purely for college credit, but to keep your student engaged and challenged with the material during high school. Even if there is no likely college credit, it may still be well worth taking the advanced course. Also, consider that even when your student is in college, they may not want to skip a core class in their major even if they already earned the credit, because future classes will build heavily on that core material that may not have been covered as rigorously in high school. This is especially true at a top university.

List of Advanced Courses

Here is a list of all of the Pre-AP, AP, and College-in-the-High-School (CHS) courses offered at BHS

- AP/CHS Biology
- AP Chemistry
- AP Physics 1 (algebra based)
- AP Physics 2 (algebra-based)
- CHS Environmental Science – Note: this class does not count as a “Biology” class
- AP Environmental Science – Note: this class does not count as a “Biology” class
- AP World History
- AP US History (often abbreviated as APUSH)
- AP US Government
- CHS Global Studies
- AP Human Geography – Note: does not count for a “Social Studies” credit
- Pre-AP English 9
- Pre-AP English 10
- AP English Language and Composition
- AP English Literature and Composition
- CHS English 12
- CHS French 350
- CHS German 350
- CHS Spanish 350
- CHS Japanese 350
- CHS French 450
- CHS Spanish 450
- CHS Japanese 450
- CHS Pre-calculus
- AP Calculus AB / CHS Calculus
- CHS Differential Calculus
- CHS Calculus III
- AP Psychology (counts as CTE credit)
- AP Music Theory
- AP Computer Science Principles
- CHS Computer Programming

BHS publishes a great website that has more info about each of the AP courses:

<https://bothell.nsd.org/academics/advanced-placement-ap-programs>

Sample 4-Year Schedules

Here are some sample 4-year schedules for advanced students with particular interest areas. It's worth reiterating that there is no single suggested schedule for HiCap or advanced students, and there will be substantial variation in course selections between individual students based on individual strength areas, interests, and long term plans, as well as what level of math they are entering high school with, and whether they took a year of world language in middle school.

It's also worth reiterating that HiCap students should NOT feel like they should register for pre-AP, AP, or CHS classes in every subject area. Students should be cautious to not sign up for an overly rigorous workload, as homework demands can be intense for some AP and CHS courses. Some AP and CHS courses are much more rigorous than others. It's a good idea for students to register for an AP or CHS class during freshman year so that they can better judge workload expectations for future years.

Sample Schedule 0: Just the Basics

8th grade: Geometry (double jump math)

This is a basic schedule showing common minimum graduation requirements, and when they would most typically fall in a 4 year schedule for an advanced student. Blank spaces represent places for fine arts and elective classes, and other graduation requirements.

Freshman Year

Pre-AP English 9
Algebra 2/Trig
Biology
World Lang 1
Health/PE

Sophomore Year

Pre-AP English 10
CHS PreCalculus
AP/World History
<science>
World Lang 2
PE/Life Fitness

Junior Year

AP Eng Lang / Eng 11
AP Calculus AB
AP/US History
<science>

Senior Year

AP Eng Lit / Eng 12
CHS Calc 3 /
AP Stats
AP/US Governm't

Sample Schedule 1: Math & Science Focus

8th grade: Algebra 2/Trig (triple jump math)

Freshman Year

Pre-AP English 9
CHS Pre-Calc
Biology
AP Physics 1
World Lang 1
Health/PE
Elect/Arts/Music

Sophomore Year

English 10
AP Calc AB
World History
AP Physics 2
World Lang 2
Chemistry/AP Biology
Elect/Arts/Music

Junior Year

AP English Lang
CHS Calc II
US History
AP Chem/AP Bio
AP Environmental Science
PE/Life Fitness
Elect/Arts/Music

Senior Year

English 12
AP Statistics
AP Government
AP Chem/AP Bio
Science Olympiad Topic Research
AP Comp. Sci
Elect/Arts/Music

Sample Schedule 2: Max It Out

8th grade: Geometry (double jump math)

Freshman Year

Pre-AP English 9
Algebra 2/Trig
Biology
AP Psychology
World Lang 1
Health/PE
Elect/Arts/Music

Sophomore Year

Pre-AP English 10
CHS Precalc
AP Biology
AP World History
World Lang 2
AP Comp. Sci
Elect/Arts/Music

Junior Year

AP English Lang
AP Calculus AB
AP Chemistry
AP US History
World Lang 3
PE/Life Fitness
Elect/Arts/Music

Senior Year

AP English Lit
CHS Calc3/AP Stats
AP Physics 1
AP Government
AP Music Theory
Accounting/marketing
Elect/Arts/Music

Sample Schedule 3: Humanities Focus

8th grade: Algebra (single jump math) and 1 year of World Language (Spanish)

Freshman Year

Pre-AP English 9
Geometry
Biology
AP Geography
Spanish 2
AP Psychology
Elect/Arts/Music

Sophomore Year

Pre-AP English 10
Algebra 2/Trig
Chemistry
AP WorldHistory
CHS Spanish 350
Into to Law & Personal Finance
Elect/Arts/Music

Junior Year

AP English Lang
CHS Precalculus
Physics
AP US History
CHS Spanish 450
Health/PE
Elect/Arts/Music

Senior Year

AP English Lit
AP Statistics
AP Music Theory
AP Government
Elect/Arts/Music
PE/Life Fitness
Elect/Arts/Music

Sample Schedule 4: Pick-and-Choose

8th grade: Algebra (single jump math) and 1 year of World Language

Freshman Year

Pre-AP English 9
Geometry
Biology
AP Human Geo.
World Lang 2
Principles Engin.
Elect/Arts/Music

Sophomore Year

Pre-AP English 10
Algebra 2/Trig
Chemistry
World History
World Lang 3
AP Psychology
Elect/Arts/Music

Junior Year

AP English Lang
Pre-Calculus
AP Biology
US History
Elect/Arts/Music
Health/PE
Elect/Arts/Music

Senior Year

English 12
AP Statistics
AP Physics 1
AP Government
Elect/Arts/Music
PE/Life Fitness
Elect/Arts/Music

Sample Schedule 5: A Different Pick-and-Choose

8th grade: Algebra (single jump math)

Freshman Year

Pre-AP English 9
Geometry
Biology
AP Human Geo.
World Lang 1
Health/PE
Elect/Arts/Music

Sophomore Year

Pre-AP English 10
Algebra 2/Trig
AP Biology
World History
World Lang 2
AP Psychology
Elect/Arts/Music

Junior Year

AP English Lang
CHS Pre Calculus
AP Comp. Sci.
US History
AP Music Theory
Elect/Arts/Music
Elect/Arts/Music

Senior Year

English 12
AP Calculus AB
AP Physics 1
AP Government
PE/Life Fitness
Elect/Arts/Music
Elect/Arts/Music

Sample Schedule 6: Business Focus

8th grade: Geometry (double jump math) and 1 year of World Language

Freshman Year

Pre-AP English 9
Algebra 2/Trig
Biology
Microsoft Apps & Personal Finance
World Lang 2
Beginning Mktg
Elect/Arts/Music

Sophomore Year

Pre-AP English 10
CHS Precalc
Chemistry
AP World History
World Lang 3
Accounting
Elect/Arts/Music

Junior Year

AP English Lang
AP Calculus AB
Physics
AP US History
PE/Life Fitness
Into to Bus/Bus Mgmt.
Elect/Arts/Music

Senior Year

AP English Lit
CHS Calc 3/ AP Stats
AP Environ. Sci.
AP Government
PE/Health
AP Psychology
Elect/Arts/Music

Sample Schedule 7: Project Lead the Way (PLTW) Engineering

8th grade: Geometry (double jump math)

Freshman Year

Pre-AP English 9
Algebra 2/Trig
Elective
Chemistry
World Lang 1
Health/PE
PLTW Intro Engineering design

Sophomore Year

Pre-AP English 10
CHS PreCalc
AP Comp Science
World History
World Lang 2
AP Music Theory
PLTW Principal of Engineering

Junior Year

English 11
AP Calculus
AP Chemistry
US History
Elective
World Lang 3
PLTW Comp Integrated MFG

Senior Year

English 12
CHS Calc 3 or AP Stats
AP Physics 1
Government
PE/Life Fitness
World/Nat'l Issues
PLTW Eng. Design & Dev