ASSUMPTION COLLEGE SCHOOL

Advanced Placement Program

"Where curiosity and passion transform into **academic excellence**."

Advanced Placement Program Philosophy

Assumption College School AP students:

- desire enriched learning experiences
- strive for excellence
- embrace their God-given gifts
- prepare for success in university and life
- serve our world in the Spirit of Christ

The experience begins with STEM and LEAP

STEM (SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS) **CLUB**

- Students pursue their love of innovation, technology, science and mathematics
- Challenges students to develop critical thinking and inquiry skills in preparation for university
- Components of STEM include guest speakers, science and mathematics contests, STEM Olympics, problem of the week, workshops, thought-provoking articles and field trips

LEAP (LITERATURE ENRICHMENT ADVANCED PLACEMENT) **CLUB**

- Challenges motivated students to pursue their love of communication, reading, writing and analysis of literature, oral communication and media studies
- Hone thinking and communication skills in preparation for university
- Components of LEAP include Book Club, guest speakers, writing contests, contributions to the school magazine, Poet's Corner on Assumption Television and field trips

Program Progression

Grade 9 **BE CURIOUS** – Come to the guest speakers; try a contest, and read the articles.
Grade 10 **EXPLORE** – Continue the quest and go into greater depths.
Grade 11 **COMMIT** – Decide your focus; take Pre-AP courses where enrichment is built into the daily curriculum.
Grade 12 **EXCEL** – Take Advanced Placement Courses; write AP exams, and prepare for university in classes dedicated to excellence.

Advanced Placement Program registration forms for all grades are available in the Student Services office.

ASSUMPTION COLLEGE SCHOOL

Advanced Placement Courses

AP English Literature and Composition

The AP English Literature and Composition course aligns to an introductory university-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.

Enriched Ontario Course: **ETS4U** Pre-Requisite: **ENG4U**

AP Calculus AB

AP Calculus AB is roughly equivalent to a first semester university calculus course devoted to topics in differential and integral calculus. The AP course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Enriched Ontario Course: **MCV4U** Pre-Requisite: **MHF4U**

AP Sciences

AP sciences are introductory university-level courses with a more rigorous math-based approach. These courses require that 25 percent of the instructional time be spent on hands-on laboratory work, with an emphasis on inquiry-based investigations.

AP Biology

Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes — energy and communication, genetics, information transfer, ecology, and interactions.

Enriched Ontario Course: **SBI4U** Pre-Requisites: **SBI3U** and **SCH3U**

AP Chemistry

Students cultivate their understanding of chemistry and science practices as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium.

Enriched Ontario Course: **SCH4U** Pre-Requisite: **SCH3U**

AP Physics 1 and 2

AP Physics 1 and 2 explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; introductory, simple circuits; fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics.

Enriched Ontario Course: **SPH4U** Pre-Requisites: **SPH3U** and **MCR3U**

NOTE: AP Physics 1 and 2 are two separate AP exams

For further AP course information visit: **https://apstudent.collegeboard.org/apcourse**