

Holistic Curriculum

MATHEMATICS

14.0 credit min.

Core Courses

- Mathematics Foundation
- Introduction to Statistics
- Introduction to Probability
- Precalculus 1

Compulsory Courses

- Precalculus 2-3
- Calculus 1-2
- Introduction to Linear Algebra

Elective courses

- Algebra 1-2
- Combinatorics 1-2
- Differential Geometry
- Geometry 1-2
- Graph Theory
- Game Theory
- Ordinary Differential Equations
- Inequalities and Functional Equations
- Introduction to Set Theory
- Logic and Proofs
- Mathematical Modelling
- Numerical Methods
- Number Theory 1-2
- Probability Theory
- Quantum Calculus for Everyone
- Statistics for Science

SCIENCE AND TECHNOLOGY

29.0 credit min.

Core Courses

- Basic Biology
- Basic Chemistry
- Basic Physics
- Design and Technology
- Basic Earth Science 1-2
- Basic Astronomy

Compulsory Courses

- Mechanics and Thermodynamics
- Advanced Mechanics and Thermodynamics
- Waves and Optics
- Advanced Waves and Optics
- Electricity and Magnetism
- Advanced Electricity and Magnetism
- EM Waves and Modern Physics
- Advanced EM Waves and Modern Physics
- Properties of Matter
- Advanced Properties of Matter
- Kinetics and Equilibrium
- Advanced Kinetics and Equilibrium
- Organic Chemistry
- Advanced Organic Chemistry
- Inorganic and Physical Chemistry
- Advanced Inorganic and Physical Chemistry
- Chemistry in Daily Life
- Genetics and Evolution
- Advanced Genetics and Evolution
- Animal Biology
- Advanced Animal Biology
- Plant Biology
- Advanced Plant Biology
- Biodiversity and Ecology
- Advanced Biodiversity and Ecology
- Seminar 1-3
- Scientific Projects
- Scientific Inquiry and Nature of Science

Elective Courses

- Addition Computer Programming
- Applied Optics
- Astrophysics
- Basic Theoretical Physics
- Biological Lab Techniques
- Biology For Sustainable Environment
- Biophysics
- Biotechnology
- Classical Mechanics
- Computer Design and Manufacturing 1-2
- Computer Network
- Computer Programming
- Data Structures
- Database systems
- Design and Analysis of Algorithms
- Electromagnetism
- Environmental Biology
- General Computer Science 1-2
- General Physics 1-2 (AP)
- Intellectual Properties
- Introduction to Computational Science
- Introduction to Computer Algorithms
- Introduction to Computer Programming 1-2
- Introduction to Data Structures and Algorithms
- Introduction to Material Science
- Mathematics for Physics
- Object-Oriented Programming 1-2
- Philosophy and History of Science
- Programming in Python
- Science Beyond the Planet Earth 1-2
- Special Topics in Biology, Chemistry, and Physics
- Up and Coming Technologies
- Website Design

CAREER & TECHNOLOGY

4.0 credit min.

Core Courses

- Design and Technologies
- Basic Engineering

Compulsory Courses

- Marketing
- Upgrading Thailand
- Introduction to Accounting
- Business Management

ENGLISH

12.0 credit min.

Core Courses

- Fundamental English 1-6

Compulsory courses

- Academic Reading
- Reading for Appreciation
- Creative Writing 1-2
- Effective Speaking
- Effective Presentation

Elective Courses

- Public Speaking
- English for Intercultural Communication
- Critical Writing
- Contemporary Literature
- Basic Translation
- Children's Literature Writing
- Critical Writing
- Building Critical and Creative Thinkers

LANGUAGES

2.0 credit min.

Elective Courses

- Korea 1-4
- Chinese 1-4
- Japanese 1-4
- Spanish 1-4
- French 1-4
- German 1-4

SOCIAL SCIENCE

10.0 credit min.

Core Courses

- Religious Studies and Ethics for Life
- Psychology in Everyday Life
- Economics
- Thai History 1-4
- World History
- Geography
- Thais in World History 1-2

Compulsory Courses

- Civic Responsibility 1-4

Elective Courses

- ASEAN Studies for Good Understanding
- Game of Thrones and Social Studies
- Civic Responsibility 1-5
- Seminar on History
- Archaeological Inquiry

HEALTH AND PHYSICAL EDUCATION

6.0 credit min.

Core Courses

- Health and Physical Education I to VI
- Basketball
- Futsal
- Social Dance
- Weight Training
- Badminton
- Volleyball

FINE ARTS

3.0 credit min.

Core Courses

- Visual Art
- Art Appreciation
- Comparative Performing Arts
- Thai Performing Arts
- Performing Arts Appreciation 1-2

THAI LANGUAGE

6.0 credit min.

Core Courses

- Thai Language for Communication I and II
- Thai Literature Appreciation
- Society and Culture in Literature
- Thai Usage
- Seminar on Thai Language