



CONNECTICUT IB ACADEMY
EAST HARTFORD, CONNECTICUT

CONNECTICUT IB ACADEMY
AN INTERNATIONAL BACCALAUREATE WORLD SCHOOL®

PROGRAM OF STUDIES

for

2020 – 2021
School Year

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Dear CIBA Students and Parents,

We are pleased to offer the **Connecticut IB Academy's Program of Studies** for the 2020-2021 school year. The catalogue will assist you in understanding the International Baccalaureate (IB) Programmes offered at CIBA as well as the requirements for CIBA graduation and those necessary to complete the requirements to obtain the International Baccalaureate Diploma. Students and their parents/guardians should review this carefully as they plan their course of study.

CIBA is a magnet school with International Baccalaureate as its magnet theme. This means that EVERY student at CIBA is in a full IB Programme for all four years. Every course offered at CIBA is an IB course and is offered at the most rigorous levels appropriate for the students. Please keep in mind that many experts consider the Diploma Programme courses more challenging than similar AP classes. Taking all IB courses and completing the requirements for the IB Diploma are required.

CIBA is pleased to offer an IB-accredited Middle Years Programme (MYP) for grades nine and ten. The MYP is described by the IB as "a challenging framework that encourages students to make practical connections between their studies and the real world." Furthermore, the MYP provides students with a rich, concept-based learning experience and helps to ensure that students are prepared to meet the demands of the Diploma Programme (DP).

The IB Diploma Programme is an academically challenging and balanced programme of international education with final examinations that prepares students, aged 16 to 19, for success at university and life beyond high school. It has been designed to address the intellectual, social, emotional and physical well-being of students. IB programmes have a high level of respect and recognition among the world's leading higher education institutions which often results in advanced course standing, course credit, scholarships and other admissions related benefits for CIBA students.

CIBA, as an ***International Baccalaureate World School®***, follows the IB models for each programme. This program of studies outlines the demanding, balanced course of study involving eight academic areas in grades nine and ten and six academic areas in grades eleven and twelve. Subjects within the groups in both programmes are studied concurrently allowing for interdisciplinary learning. Such course requirements enable students to explore some subjects in depth and others more broadly, a formula the International Baccalaureate Organization describes as "a deliberate compromise between the early specialization of some national systems and the breadth found in others" - and one which we believe ensures exposure to a wider variety of challenges and an exploration of the intricacies of knowledge.

We hope that your student will discover their passions and interests through the courses offered at CIBA. Please do not hesitate to contact me with any questions or comments.

Sincerely,

Kathleen Simoneau
Principal

CIBA Program of Studies

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CIBA’s Philosophy of Teaching and Learning

The Connecticut IB Academy’s philosophy of teaching and learning aligns with the approaches supported by recent research on best practices in education and advocated by the International Baccalaureate Organization.

As an ***International Baccalaureate World School*** © authorized to offer both the Middle Years Programme (MYP grades 9 & 10) and the Diploma Programme (DP grades 11 & 12), CIBA believes that students can achieve at a high level by working closely with their classmates and teachers using a rigorous curriculum that allows them to construct meaning and make sense of the world. Students at CIBA are highly motivated to succeed and are encouraged to develop themselves as inquiring, knowledgeable, principled and caring individuals who want to make a difference in the world through a broad understanding of global issues, intercultural understanding and respect.

Teaching and learning at CIBA are centered on the student’s exploration of the world around them through the various disciplines and through interdisciplinary study. Students and teachers work together to construct meaning through deep conceptual understanding in each subject area. The International Baccalaureate approach weaves together depth of content understanding with conceptual study through real world connections defined as “global contexts.” Students not only develop academic skills, but they work on their social, emotional and metacognitive skills through explicit practice in communication, social, self-management, research, and thinking. The ultimate goal is to empower CIBA students as caring, ethical young people with a passion for a lifetime of learning and a well-developed sense of international mindedness.

Education for International Mindedness

Education for international mindedness values the world as the broadest context for learning, develops conceptual understanding across a range of subjects and offers opportunities to inquire, act and reflect

KEY CONCEPTS AND GLOBAL CONTEXTS

Teaching and learning in the IB is conceptual and taught through global contexts to help students make connections between their classroom experiences and the world around them. Conceptual understanding also assists students in applying their knowledge and skills to new situations. The IB identifies key concepts for each discipline along with related concepts that promote further exploration. In addition, the IB identifies six global through which all learning is framed. These are found both in the MYP and in the DP.

KEY CONCEPTS

Aesthetics	Change	Communication	Communities
Connections	Creativity	Culture	Development
Form	Global interactions	Identity	Logic
Perspective	Relationships	Systems	Time, place and space

GLOBAL CONTEXTS

Global contexts direct learning towards independent and shared inquiry into our common humanity and shared guardianship of the planet.

The global contexts are:

- identities and relationships
- orientation in space and time
- personal and cultural expression
- scientific and technical innovation
- globalization and sustainability
- fairness and development.

GRADUATION REQUIREMENTS

In order to graduate from CIBA, all students must meet the graduation requirements established by the Connecticut State Department of Education and the East Hartford Board of Education as well as the CIBA-specific graduation requirements outlined below.

Class of 2021 and Class of 2022	
English	4 credits
Mathematics	3 credits
Social Studies	3 credits (1 US history, .5 civics)
Science	3 credits
PE/Health	2 credits
Art and Vocational Ed	2 credits
World Language	3 credits
Electives	4 credits
Capstone	PP Completion EE Completion
Community Service	SA Completion CAS Completion
24 TOTAL	

Promotion Policy Class of 2021 and Class of 2022	
To Grade 10	5 credits
To Grade 11	12 credits
To Grade 12	18 credits
Graduation	24 credits

Class of 2023 and Class of 2024	
English	4 credits
Mathematics	3 credits
Social Studies	3 credits (1 US history, .5 civics)
Science	3 credits
PE/Health	2 credits
Art	1 credit
Technology	1 credit
World Language	3 credits
Electives	4 credits
Capstone (Mastery Based)	PP Completion 0.25 credits EE Completion 0.25 credits
Community Service (Mastery Based)	SA Completion 0.25 credits CAS Completion 0.25 credits
25 TOTAL	

Promotion Policy Class of 2023 and Class of 2024	
To Grade 10	6 credits
To Grade 11	13 credits
To Grade 12	19 credits
Graduation	25 credits

IB MYP CORE REQUIREMENTS

(MYP 4=Grade 9, MYP 5=Grade 10)

In addition to completing the required classes as outlined above and in the course overview, students must complete the International Baccalaureate Middle Years Programme Service as Action (SA) and the Personal Project (PP) in order to graduate from CIBA. These two elements make up one half of the state and EHPS capstone and community service graduation requirements and are described below.

SERVICE AS ACTION (SA)

Service as Action (SA) begins at the start of MYP 4 at CIBA and is an integral part of the IB mission. Students take action when they apply what they are learning in the classroom and beyond. IB learners strive to be caring members of the community who demonstrate a commitment to service-making a positive difference to the lives of others and to the environment. To this end, students complete in and out-of-school service and enter their experiences and reflections into ManageBac. A minimum of 14 SA activities are required over the course of MYP (at least 6 SA activities in MYP 4 and at least 8 SA activities in MYP 5).

PERSONAL PROJECT (PP)

The Personal Project (PP) is started at the end of MYP 4 and is completed in the third quarter of MYP 5. It is a sustained, self-directed inquiry completed independently by each student on a topic of personal interest. Students decide what they want to learn about, identify what they already know, discover what they will need to know to complete the project, and create criteria for evaluation.

The aims of the MYP Personal Project are to encourage and enable students to:

- participate in a sustained, self-directed inquiry within a global context
- generate creative new insights and develop deeper understandings through in-depth investigation
- demonstrate the skills, attitudes, and knowledge required to complete a project over an extended period of time
- develop attributes of the learner profile and approaches to learning skills
- communicate effectively in a variety of situations
- demonstrate responsible action through, or as a result of, learning
- appreciate the process of learning and take pride in their accomplishments.

The MYP PP encourages students to reflect on their learning and the outcomes of their work – key skills that prepare them for success in further study, the workplace and the community. Students complete research, write process journals along the way, meet with their advisor, and submit a written report of their work along with the product. Each student's project is moderated externally by the International Baccalaureate. This score is included on each student's transcript, but it is not factored into the GPA. The Personal Project is the hallmark of the MYP experience and serves as its culmination.

MYP PROGRAMME MODEL



The International Baccalaureate® Middle Years Programme Model

IB Middle Years Programme students (every student at CIBA in grades nine and ten) study all of the eight subjects of the MYP concurrently with the exception of Design and Art which are offered for one year in grades nine and ten respectively.

Eight Subject Groups:

- Language & Literature
- Language Acquisition
- Individuals and Societies
- Sciences
- Physical and Health Education
- Mathematics
- Arts
- Design

MYP Program Core:

- Service as Action (SA)
- Personal Project (PP)

IB DP CORE REQUIREMENTS

(DP 1=Grade 11, DP 2=Grade 12)

In addition to completing the required classes as outlined above and in the course overview, students must complete the International Baccalaureate Diploma Programme Creativity, Activity, and Service (CAS) and the Extended Essay (EE) in order to graduate from CIBA. These two elements make up the second half of the state and EHPS capstone and community service graduation requirements. It is important to note that the third requirement of the IB DP core is Theory of Knowledge (ToK) which is described in the course overview on page 38.

CREATIVITY, ACTIVITY AND SERVICE (CAS)

Creativity, Activity, and Service (CAS) begins at the start of DP 1 and is completed in the fourth quarter of DP 2 at CIBA. Students complete in and out-of-school experiences in these three areas and enter their experiences and reflections into ManageBac. Creativity is defined as the arts and other experiences that involve creative thinking. Activity is physical exertion contributing to a healthy lifestyle, complementing academic work elsewhere in the Diploma Programme. Service is an unpaid and voluntary exchange that has a learning benefit for the student.

Each student will be required to produce a CAS portfolio in ManageBac. This portfolio is a collection of evidence that showcases CAS experiences and student reflections. Minimum requirements are as follows: 12-15 CAS experiences, 30 reflections per year (one reflection per week), one CAS project (10 hours), and one final CAS reflection. The student can be guided to enhance their reflections on CAS experiences by using the Ways of Knowing and the IB learner profile. Students are encouraged to make deep connections between their learning in CAS and their subject and Theory of Knowledge learning, and consider how one may help the other. Completion of CAS is based on the fulfillment of the seven CAS learning outcomes, increased awareness of their own strengths and areas for growth, undertaking new challenges, planned and initiated activities, working collaboratively with others, shown perseverance and commitment to their activities, engagement with issues of global importance, consideration of the ethical implications of their actions and developing new skills. Students must provide thorough reflection evidence of achievement of each of the seven learning outcomes. As a culminating requirement, each student will write a final reflection in which he/she reflects on all of the CAS activities in which he/she has participated. The final reflection will review the CAS experience as it has influenced the individual's interests and personal philosophy.

EXTENDED ESSAY (EE)

One of the Core Requirements for the IB Diploma and a graduation requirement is the completion of the Extended Essay, a 4,000 word research paper written individually by each student. Each student chooses a discipline from the DP courses offered at CIBA, a topic, and develops a research question. The goals of the EE include engaging in independent research with intellectual initiative and rigour, developing research, thinking, self-management and communication skills, and promoting reflection on what has been learned throughout the research and writing process.

The EE process begins in the junior year with general instruction on responsible research, effective writing strategies, citations and subject-specific requirements. The final paper is handed in during the first semester of the students' senior year. Students take field trips to local colleges to introduce them to college research facilities and allow them access to those resources. During the process of writing the Extended Essay, students are responsible for meeting with their advisor to discuss progress, and reflection on those meetings is an important part of the overall assessment of the paper. Completion of

the Extended Essay is the best method for students to demonstrate college readiness to prospective colleges, universities and scholarship committees.

While in-school support is provided, students are expected to devote many hours of their own time to the production of a solid, college-quality paper. As with all Diploma Program requirements, a timeline is provided to assist students with their self-management skills and ensure timely completion.

DP PROGRAMME MODEL



The International Baccalaureate® Diploma Programme Model

IB Diploma Programme students must choose one subject from each of five groups (1 to 5), ensuring breadth of knowledge and understanding. Students may choose either an arts subject from group 6, or a second subject from groups 1 to 5.

Group One: Studies in Language & Literature

Group Two: Language Acquisition

Group Three: Individuals and Societies

Group Four: Sciences

Group Five: Mathematics

Group Six: The Arts

DP Program Core:

- Extended Essay (EE)
- Theory of Knowledge (ToK)
- Creativity Action Service (CAS)

IB DIPLOMA REQUIREMENTS

All students who attend CIBA are expected to be candidates for the full IB diploma by completing the entire range of internal and external components required to earn the IB Diploma. The IB Diploma requires that students complete a specific number of course hours in each of the six subject groups over two years. Each of these subjects has an internal project, exploration, assessment or oral assessment that is a required component of the course. The internal assessments serve as a final indicator of whether the student has met the aims and objectives of the course and are calculated as approximately 20% of the IB exam grade. The IB Exams are a series of papers (examinations) that are administered in May of the senior year. CIBA currently pays for the exam fees for all students. Failure to take an examination or submit any portion of the internal assessment will result in an accountability to reimburse the cost of the exam. The IB also requires the completion of the Theory of Knowledge (ToK), Extended Essay, and Creativity, Activity, and Service (CAS) for the IB diploma.

The external exam papers are each scored on a 1-7 scale, and the scores are combined holistically. Three additional points are available based on performance in ToK and the Extended Essay, for a total of 45 possible points. Students must score a minimum of 24 points to earn an IB Diploma. Below is an explanation of the requirements as set forth by the IBO to earn the IB Diploma.

The IB Diploma will be awarded to a candidate provided all the following requirements have been met.

- a. CAS requirements have been met.
- b. The candidate's total points are 24 or more.
- c. There is no "N" awarded for theory of knowledge, the extended essay or for a contributing subject.
- d. There is no grade E awarded for theory of knowledge and/or the extended essay.
- e. There is no grade 1 awarded in a subject/level.
- f. There are no more than two grade 2s awarded (HL or SL).
- g. There are no more than three grade 3s or below awarded (HL or SL).
- h. The candidate has gained 12 points or more on HL subjects (for candidates who register for four HL subjects, the three highest grades count).
- i. The candidate has gained 9 points or more on SL subjects (candidates who register for two SL subjects must gain at least 5 points at SL).
- j. The candidate has not received a penalty for academic misconduct from the Final Award Committee.

Adapted from information provided by the official website of the International Baccalaureate: www.ibo.org

The IB Diploma carries a high level of respect and recognition among the world's leading higher education institutions which results in advanced course standing, course credit, scholarships and other admissions related benefits for CIBA students.

CONNECTICUT STATE DEPARTMENT OF EDUCATION REQUIREMENTS

In addition to meeting the credit requirements as required by the Connecticut State Department of Education, students must obtain a **minimum score** of 480 on the Evidence Based Reading and Writing (EBRW) portion of the SAT or a 19 on the English portion of the ACT. Students must obtain a **minimum score** of 530 on the Mathematics portion of the SAT or a 19 on the Math portion of the ACT.

CIBA COURSE MATRIX FOR 2020-2021

	Grade 9 (IB MYP 4)	Grade 10 (IB MYP 5)	Grade 11 (IB DP 1)	Grade 12 (IB DP 2)
Group 1 <i>Language and Literature</i>	MYP 4 English: Language and Literature	MYP 5 English: Language and Literature	DP 1 English: Literature (HL)	DP 2 English: Literature (HL)
Group 2 <i>Language Acquisition</i>	MYP 4 Spanish: Language Acquisition	MYP 5 Spanish: Language Acquisition	DP 1 Spanish: Language Acquisition (ab initio/SL)	DP 2 Spanish: Language Acquisition (ab initio/SL)
	MYP 4 Chinese: Language Acquisition	MYP 5 Chinese: Language Acquisition	DP 1 Chinese: Language Acquisition (ab initio/SL)	DP 2 Chinese: Language Acquisition (ab initio/SL)
Group 3 <i>Individuals and Societies</i>	MYP 4 United States and the World	MYP 5 Government and Global Issues	DP 1 History of the Americas (HL)	DP 2 Topics in World History (HL)
	MYP 4 Design Technology		DP 1 Information Technology in a Global Society (HL)	DP 2 Information Technology in a Global Society (HL)
Group 4 <i>Sciences</i>	MYP 4 Integrated Sciences	MYP 5 Chemistry	DP 1 Biology (HL)	DP 2 Biology (HL)
			DP 1 Chemistry (SL)	DP 2 Chemistry (SL)
	MYP 4 Physical and Health Education	MYP 5 Physical and Health Education		
Group 5 <i>Mathematics</i>	MYP 4 Standard Level Mathematics	MYP 5 Standard Level Mathematics	DP 1 Mathematics: Applications and Interpretation (SL)	DP 2 Mathematics: Applications and Interpretation (SL)
	MYP 4 Extended Level Mathematics	MYP 5 Extended Level Mathematics	DP 1 Mathematics: Analysis and Approaches (SL)	DP 2 Mathematics: Analysis and Approaches (SL)
Group 6 <i>The Arts</i>		MYP 5 Art	DP 1 Visual Arts (SL)	DP 2 Visual Arts (SL)
<i>IB Core</i>	Personal Project	Personal Project	Extended Essay	Extended Essay
	Service as Action	Service as Action	Creativity, Activity, Service	Creativity, Activity, Service
			DP 1 Theory of Knowledge	DP 2 Theory of Knowledge
Online courses	GradPoint	GradPoint	DP Pamoja	DP Pamoja
Other	Band/Orchestra	Band/Orchestra	Band/Orchestra	Band/Orchestra

MYP SPECIFIC SUBJECT GROUPS

DESIGN

MYP 4/Grade 9	Design Technology	5 periods/week	1 credit
Brief Summary of the Course			
<p>Design technology is an in-depth analysis of the design cycle, the ever-present idea that fuels change in the world. Through the four stages of the design cycle students will analyze issues affecting a client, develop ideas, create and implement, as well as evaluate and revise. Units focus on graphic design, video editing, programming, web design, and the Sustainable Development Goals as initiated by the United Nations.</p>			
Course Objectives			
<ul style="list-style-type: none"> • apply practical and creative thinking skills to solve design problems • explore the role of design in both historical and contemporary contexts • consider their responsibilities when making design decisions and taking action 			
Connection to Graduation			
<p>This course satisfies the vocational education or technology credit required for graduation. Connecticut State Department of Education Requirement: STEM</p>			

PHYSICAL/HEALTH EDUCATION

MYP 4/Grade 9	Physical/Health Education	5 periods/week	1 credit
Brief Summary of the Course			
<p>Physical/Health Education aims to “empower students to gain a better understanding and appreciate the value of being physically active and develop the motivation for making healthy life choices.” (ibo.org) Physical/Health Education courses foster the development of knowledge, skills and attitudes that will allow the student to make healthy choices and the consequences associated with substance abuse. “Physical and Health education focuses on both learning about and learning through physical activity. These help students to develop approaches to learning (ATL) skills across the curriculum. Physical/Health Education contributes a unique perspective to the development of the attributes of the IB learner profile, promoting the health of individuals and communities.” (ibo.org) There is an emphasis on skill based health concepts such as: Core Concepts, Analyzing influences, Accessing information, Interpersonal Communication, Decision Making, Goal Setting, Self-Management, and Advocacy as well as an emphasis on sportsmanship and the development of teamwork. Water safety, basic instruction in stroke development and other aquatic activities are included as essential to a safe and healthy lifestyle. Where relevant, the course will address issues of international dimension and ethics by considering sport, exercise and health relative to the individual and in a global context.</p>			
Course Objectives			

- Criterion A: Knowing and understanding
- Criterion B: Planning for performance
- Criterion C: Applying and performing
- Criterion D: Reflecting and improving performance

Connection to Graduation

This course satisfies one of the two Physical Education/Health credits required for graduation.
Connecticut State Department of Education Requirement: Physical Education and Wellness and Health and Safety Education

MYP 5/Grade 10	Physical/Health Education	4 periods/week	1 credit
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Brief Summary of the Course

Physical/Health Education continues to “empower students to understand and appreciate the value of being physically active and develop the motivation for making healthy life choices.” (ibo.org) To this end, the 10th grade physical/health education courses foster the development of knowledge, skills and attitudes that will allow the student to make healthy choices and the consequences associated with unhealthy choices. There is an emphasis on skill-based health concepts such as: Core Concepts, Analyzing influences, Accessing information, Interpersonal Communication, Decision Making, Goal Setting, Self-Management, and Advocacy. All students at this grade level will receive instruction in a variety of topics including substance abuse, HIV/AIDS, nutrition and other lifestyle choices. Students will receive Red Cross and First Aid instruction. Certification is awarded to those who qualify and meet the standards set forth by the American Red Cross. Where relevant, the course will address issues of international dimension and ethics by considering sport, exercise and health relative to the individual and in a global context.

Course Objectives

- Criterion A: Knowing and understanding
- Criterion B: Planning for performance
- Criterion C: Applying and performing
- Criterion D: Reflecting and improving performance

Connection to Graduation

This course satisfies one of the two Physical Education/Health credits required for graduation.
Connecticut State Department of Education Requirement: Physical Education and Wellness and Health and Safety Education

GROUP 1 – STUDIES IN LANGUAGE AND LITERATURE

MYP 4 /Grade 9	English Language & Literature	5 periods/week	1 credit
Brief Summary of the Course			
<p>Students will read and analyze fictional short stories, poems, plays, and memoirs to determine the author's purpose and craft. They will focus upon the construction of elements of fiction, poetic forms and devices, the interplay of dramatic elements (literary, stage, and performance), and writing strategies employed in memoirs and personal narratives. Students will compose formal analytical writing pieces, as well as personal creative pastiches, poems, and memoirs. Students will develop and refine non verbal communication and collaboration skills to visually represent significant conflicts and relationships in the design and presentation of tableau.</p>			
Course Objectives			
<p>Reading and Analyzing</p> <ul style="list-style-type: none"> • analyse the content, context, language, structure, technique and style of text(s) and the relationship among texts; the effects of the creator's choices on an audience • justify opinions and ideas, using examples, explanations and terminology • evaluate similarities and differences by connecting features across and within genres and texts. <p>Writing and Organizing</p> <ul style="list-style-type: none"> • employ organizational structures that serve the context and intention to organize opinions and ideas in a sustained, coherent and logical manner • use referencing and formatting tools to create a presentation style suitable to the context and intention. • produce texts that demonstrate insight, imagination and sensitivity while exploring and reflecting critically on new perspectives and ideas arising from personal engagement with the creative process • use appropriate and varied vocabulary, sentence structures and forms of expression; use correct grammar, syntax and punctuation 			
Connection to Graduation			
<p>This course satisfies one of the four English credits required for graduation. Connecticut State Department of Education Requirement: Humanities</p>			

MYP 5/Grade 10	English Language and Literature	5 periods/week	1 credit
Brief Summary of the Course			
<p>The course examines the beauty, fragility, and complexity of the human condition through an exploration of fictional plays and novels. When studying drama, students will analyze the combination of dramatic elements (literary, stage, and performance) in order to determine the effect on the audience. Students will collaborate to visually represent significant conflicts, relationships, and themes in artistic representation, written expression, and presentation of tableau. Students will practice inquiry into character relationships, power relationships, and character dynamics through student-led discussions, close-text analysis, and writing original poetry and fiction. Students will engage in regular journal writing to track their understanding and prepare for student-led critical conversations about</p>			

textual developments. The midterm and final will be an IB Paper 2 test, in which they must synthesize their understanding of the works covered during the semester.

Course Objectives

Reading and Analyzing

- analyse the content, context, language, structure, technique and style of text(s) and the relationship among texts; the effects of the creator's choices on an audience
- justify opinions and ideas, using examples, explanations and terminology
- evaluate similarities and differences by connecting features across and within genres and texts.

Writing and Organizing

- employ organizational structures that serve the context and intention to organize opinions and ideas in a sustained, coherent and logical manner
- use referencing and formatting tools to create a presentation style suitable to the context and intention.
- produce texts that demonstrate insight, imagination and sensitivity while exploring and reflecting critically on new perspectives and ideas arising from personal engagement with the creative process
- use appropriate and varied vocabulary, sentence structures and forms of expression; use correct grammar, syntax and punctuation

Connection to Graduation

This course satisfies one of the four English credits required for graduation.

Connecticut State Department of Education Requirement: Humanities

DP 1/Grade 11	English Literature (HL)	5 periods/week	1 credit
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Brief Summary of the Course

This is the first half of the two year course. Students study multiple genres of writing connected by 7 course concepts: Identity, Culture, Creativity, Communication, Perspective, Transformation, and Representation. In order to explore these concepts, as well as global issues, students will read the following texts, some of which are works in translation: *The House of the Spirits*, by Isabel Allende (Chile); *Selected Poems*, by Pablo Neruda (Chile); *The Crucible*, by Arthur Miller (USA), *The Handmaid's Tale*, by Margaret Atwood (Canada); *The Stranger*, by Albert Camus (Algeria); *1984*, by George Orwell (UK); and *Snow Country*, by Yasunari Kawabata (Japan). Students will examine the genre conventions of the novel, drama, and poetry, as well as explore the cultural and historical contexts from which each text emerges, building intertextual connections across texts with respect to global issues. These works are internally assessed through the 15 minute Individual Oral at the end of year one, but they may be used on IB assessments during year two as well. The only caveat is that once a text is used for an IB assessment, it cannot be used again.

Course Objectives

- introduce students to texts from different cultures and historical periods that were originally written in a different language
- develop a cultural and contextual understanding of the respective countries from which texts emerge, and the impact of setting on characters and plot

- develop in students the ability to engage in close, detailed analysis of individual texts and make relevant connections
- develop the students' powers of expression, both in oral and written communication
- encourage, through the study of texts, an appreciation of the different perspectives of people from other cultures, and how these perspectives construct meaning
- encourage students to appreciate the formal, stylistic and aesthetic qualities of texts
- develop in students an understanding of the techniques involved in literary criticism and the students' ability to form independent literary judgments and to support those ideas
- promote in students an enjoyment of, and lifelong interest in, language and literature
- promote a broader understanding of intertextuality with respect to global issues

Connection to Graduation

This course satisfies one of the four English credits required for graduation.

Connecticut State Department of Education Requirement: Humanities

DP 2/Grade 12	English Literature (HL)	5 periods/week	1 credit
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Brief Summary of the Course

This is the second half of the two-year course. Students continue to study the 7 course concepts (Identity, Culture, Creativity, Communication, Perspective, Transformation, and Representation), through works of nonfiction essays and memoirs, poetry, and drama, including, but not limited to: *Born a Crime: Stories from a South African Childhood* by Trevor Noah; *“Civil Disobedience” and Other Essays* by Henry David Thoreau; *Collected Poems* by Robert Frost, *Anowa* by Ama Ata Aidoo, *“Master Harold” and the boys* by Athol Fugard, and *Hamlet* by William Shakespeare. Students will examine the genre conventions of the nonfiction prose, drama, and poetry, as well as explore the cultural and historical contexts from which each text emerges, building intertextual connections across texts with respect to global issues. These works and those studied in year one are externally assessed through the Higher Level Essay (1200-1500 words) and the Paper 1 and Paper 2 exams. No text may be used for more than one IB assessment.

Course Objectives

- introduce students to a range of texts from different periods, styles and genres
- develop in students the ability to engage in close, detailed analysis of individual texts and make relevant connections
- develop the students' powers of expression, both in oral and written communication
- encourage students to recognize the importance of the contexts in which texts are written and received
- encourage, through the study of texts, an appreciation of the different perspectives of people from other cultures, and how these perspectives construct meaning
- encourage students to appreciate the formal, stylistic and aesthetic qualities of texts
- develop in students an understanding of the techniques involved in literary criticism and the students' ability to form independent literary judgments and to support those ideas.
- promote in students an enjoyment of, and lifelong interest in, language and literature.

Connection to Graduation

This course satisfies one of the four English credits required for graduation.

Connecticut State Department of Education Requirement: Humanities

GROUP 2 – LANGUAGE ACQUISITION CHINESE

MYP 4/Grade 9	Chinese/Language Acquisition	5 periods/week	1 credit
Brief Summary of the Course			
<p>In this course students will gain proficiency in Chinese while supporting maintenance of their mother tongue and cultural heritage. Students will develop a respect for, and understanding of, diverse linguistic and cultural heritages as well as develop the necessary communication skills for further language learning, and for study, work and leisure in a range of authentic contexts and for a variety of audiences and purposes. TPRS strategies will be applied through this course so that students will gain basic skills in reading, listening, speaking and writing by telling stories.</p>			
Course Objectives			
<ul style="list-style-type: none"> • Greetings • Dates and numbers • Family • Hobbies 			
Connection to Graduation			
This course satisfies the World Language or elective requirement for graduation.			

MYP 5 /Grade 10	Chinese/Language Acquisition	5 periods/week	1 credit
Brief Summary of the Course			
<p>This course is a continuation of MYP 4 and further provides students with the opportunity to develop insights into the features, processes and craft of language. The concept of culture is explored so that students realize that there are diverse ways of living, behaving and viewing the world. This course starts to use a textbook called “Integrated Chinese” with some TPRS strategies. Students will complete a variety of projects and activities related to the units below.</p>			
Course Objectives			
<ul style="list-style-type: none"> • Studying Chinese • School life • Chinese New Year • Food 			
Connection to Graduation			
This course satisfies the World Language or elective requirement for graduation.			

DP 1/Grade 11	Chinese/Language Acquisition (SL/Ab initio)	5 periods/week	1 credit
Course summary			
<p>This course is the first year of the two year Mandarin Chinese language acquisition course which provides students with necessary skills and intercultural understanding to enable them to communicate successfully in a place where Mandarin Chinese is spoken.</p> <p>Five Themes that are explored are: Identities, Experiences, Human Ingenuity, Social organization, and Sharing the Planet.</p>			
Course Objectives			
<ul style="list-style-type: none"> • IB Education • Personal attributes • Food and Celebrations • Entertainment and impact of information technology on society 			
Connection to Graduation			
This course satisfies the World Language or elective requirement for graduation.			

DP 2/Grade 12	Chinese/Language Acquisition (SL/Ab initio)	5 periods/week	1 credit
Brief Summary of the Course			
<p>This course is the final year of the DP curriculum in Mandarin Chinese. It continues to follow five topics in DP 1 Chinese and emphasizes the concepts that link their learning to local and global content. Stress will be placed on authentic and challenging readings including literature and language tasks. Preparation for IB Exam is another focus of this course.</p>			
Course Objectives			
<ul style="list-style-type: none"> • IB Education • Learning Chinese • Chinese New Year and traditions • Man and woman equality 			
Connection to Graduation			
This course satisfies the World Language or elective requirement for graduation.			

SPANISH

MYP 4 /Grade 9	Spanish/Language Acquisition	5 periods/week	1 credit
Brief Summary of the Course			
<p>The purpose of this course is to develop the ability to use the target language to communicate about everyday topics. Students will also demonstrate the ability to work collaboratively and develop their reading, writing, listening and speaking skills. There is also a focus on Hispanic culture and its influence in the world.</p>			
Course Objectives			
Criterion A: Comprehending spoken and visual text	students should be able to: identify basic facts, messages, main ideas and supporting details; recognize basic conventions; engage with the spoken and visual text by identifying ideas, opinions and attitudes and by making a personal response to the text.	Listening activity -teacher reads prompt students respond with or without image -students communicate with each other -shows understanding of concept	
Criterion B: Comprehending written and visual text	students should be able to: identify basic facts, messages, main ideas and supporting details; recognize basic aspects of format and style, and author's purpose for writing; engage with the written and visual text by identifying ideas, opinions and attitudes and by making a personal response to the text.	Multiple choice or text with images Reading comprehension of paragraph or authentic text -shows understanding of concept	
Criterion C: Communicating in response to spoken, written, and visual text	students should be able to: respond appropriately to simple short phrases; interact in simple and rehearsed exchanges, using verbal and non-verbal language; use basic phrases to communicate ideas, feelings and information on a variety of aspects of everyday topics; communicate with a sense of audience.	Using the target language to answer an oral question, written text or visual text. Responses are communicative can be oral, written, or gestures to show understanding	
Criterion D: Using language in spoken and written form	students should be able to: write and speak using a basic range of vocabulary, grammatical structures and conventions; when speaking, use clear pronunciation and intonation; organize basic information and use a range of basic cohesive devices; use language to suit the context.	Writing or speaking Responses are communicative: Oral or written Responding to a written or oral prompt in the target language	
Connection to Graduation			
This course satisfies the World Language or elective requirement for graduation.			

MYP 5 /Grade 10	Spanish/Language Acquisition	5 periods/week	1 credit
Brief Summary of the Course			
Students will demonstrate their ability to function both communicatively and culturally in Spanish at a minimum of a novice level of proficiency. Students will engage in interpretive listening and reading, presentational and interpersonal writing, and presentational and interpersonal speaking. Through their study of the language, students will demonstrate an understanding of the personal, vocational, and economical benefits of being able to gain proficiency in a second language.			
Course Objectives			
Criterion A: Comprehending spoken and visual text	students should be able to: identify basic facts, messages, main ideas and supporting details; recognize basic conventions; engage with the spoken and visual text by identifying ideas, opinions and attitudes and by making a personal response to the text.	Listening activity -teacher reads prompt students respond with or without image -students communicate with each other -shows understanding of concept	
Criterion B: Comprehending written and visual text	students should be able to: identify basic facts, messages, main ideas and supporting details; recognize basic aspects of format and style, and author's purpose for writing; engage with the written and visual text by identifying ideas, opinions and attitudes and by making a personal response to the text.	Multiple choice or text with images Reading comprehension of paragraph or authentic text -shows understanding of concept	
Criterion C: Communicating in response to spoken, written, and visual text	students should be able to: respond appropriately to simple short phrases; interact in simple and rehearsed exchanges, using verbal and non-verbal language; use basic phrases to communicate ideas, feelings and information on a variety of aspects of everyday topics; communicate with a sense of audience.	Using the target language to answer an oral question, written text or visual text. Responses are communicative: can be oral, written, or gestures to show understanding	
Criterion D: Using language in spoken and written form	students should be able to: write and speak using a basic range of vocabulary, grammatical structures and conventions; when speaking, use clear pronunciation and intonation; organize basic information and use a range of basic cohesive devices; use language to suit the context.	Writing or speaking Responses are communicative Oral or written Responding to a written or oral prompt in the target language	
Connection to Graduation			
This course satisfies the World Language or elective requirement for graduation.			

DP 1/Grade 11 DP 2/Grade 12	Spanish/Language Acquisition (SL/Ab initio)	5 periods/week	1 credit/yr
Brief Summary of the Course			
<p>The course comprises of 5 Themes (Identities, Experiences, Human Ingenuity, Social Organization and Sharing the Planet). The themes are studied over a 2 year period with a variety of topics covered under each theme. The focus is on speaking, listening, writing and reading comprehension as it pertains to a variety of authentic text types and audiences. Students are required to speak in the target language, do oral presentations, complete lengthy written texts, listen and comprehend various Hispanic speakers, and engage in the target language with peers on various topics, while learning about the Hispanic culture. The study of another language is crucial in developing an international-minded and global thinking IB student.</p>			
Course Objectives			
<ul style="list-style-type: none"> • To develop the necessary skills to speak, comprehend, read and write effectively in the target language • To acquire knowledge on a variety of text types' uses, audiences, format, etc. • To immerse oneself in the language by speaking exclusively in the target language • To acquire improved receptive, interactive, and interpersonal skills • To develop an understanding and appreciation of the Hispanic culture. 			
Connection to Graduation			
These courses satisfy the World Language or elective requirement for graduation.			

GROUP 3 – INDIVIDUALS AND SOCIETIES

MYP 4/Grade 9	United States and the World	5 periods/week	1 credit
Brief Summary of the Course			
<p>United States and the World is the Social Studies class for freshmen. In this course, students will look at the history of the United States as a member nation of a larger global community. The content covers the years 1880 - 1950 with a specific focus on foreign policy and US interactions with other nations. Students will develop research and writing skills for the Diploma Program history course.</p> <p>Concepts include Change; Global interactions; Time, Place and Space; and Systems.</p>			
Course Objectives			
<ul style="list-style-type: none"> • develop factual and conceptual knowledge about individuals and societies • develop systematic research skills and processes associated with disciplines in the humanities and social sciences • develop successful strategies for investigating independently and in collaboration with others • develop skills to organize, document and communicate their learning using a variety of media and presentation formats • use critical thinking skills to develop and apply their understanding of individuals and societies and the process of investigation 			
Connection to Graduation			
<p>This course satisfies the US History Social Studies requirement for graduation. Connecticut State Department of Education Requirement: Humanities</p>			

MYP 5/Grade 10	Government and Global Issues	5 periods/week	1 credit
Brief Summary of the Course			
<p>Government and Global Issues is the Social Studies class for MYP 5. In this course, students will study the United States government's function in depth and in comparison with other nations. Global issues studied may include Human Rights, Development, Power, Sovereignty and International Relations. Students will build on the skills acquired in MYP 4 by completing an intensive research project.</p>			
Course Objectives			
<ul style="list-style-type: none"> • develop factual and conceptual knowledge about individuals and societies • develop systematic research skills and processes associated with disciplines in the humanities and social sciences • develop successful strategies for investigating independently and in collaboration with others • develop skills to organize, document and communicate their learning using a variety of media and presentation formats • use critical thinking skills to develop and apply their understanding of individuals and societies and the process of investigation 			
Connection to Graduation			
<p>This course satisfies the .5 civics credit and .5 of the Social Studies credits required for graduation.</p>			

Connecticut State Department of Education Requirement: Humanities

DP 1/Grade 11	History of the Americas (HL)	5 periods/week	1 credit
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Brief Summary of the Course

History of the Americas is the first year of the two-year IB Diploma Program history course. The region of focus is the Americas which requires that we study several countries in the western hemisphere, not just the United States. Students will engage in comparative and multi-perspective units such as *Emergence of the Americas in Global Affairs (1880-1929)*, which looks at the rise of hemispheric cooperation and conflict; *The Second World War in the Americas (1933-1945)*, which examines the contributions of Canada, the USA and Latin American countries to the war effort as well as the impact on the home front; and *Civil Rights and Social Movements in the Americas post 1945*, again taking a hemispheric approach as we study indigenous rights movements in North and South America, as well as the US Civil Rights movement, women's movements and other social justice causes in the Americas.

Other possible units of study include: *Mexican Revolution (1884 - 1940)*, *The Great Depression and the Americas (mid 1920s - 1939)* or *Political Developments in the United States, Canada and Latin America (1945-1982)*

During this course, students will begin work on their IB DP history internal assessment which is a 2000 word research paper.

Course Objectives

- develop an understanding of, and continuing interest in, the past
- encourage students to engage with multiple perspectives and to appreciate the complex nature of historical concepts, issues, events and developments
- promote international-mindedness through the study of history from more than one region of the world
- develop an understanding of history as a discipline and to develop historical consciousness including a sense of chronology and context, and an understanding of different historical perspectives
- develop key historical skills, including engaging effectively with sources
- increase students' understanding of themselves and of contemporary society by encouraging reflection on the past.

Connection to Graduation

This course satisfies one of the three Social Studies credits required for graduation.

Connecticut State Department of Education Requirement: Humanities

DP 2/Grade 12	Topics in World History (HL)	5 periods/week	1 credit
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Brief Summary of the Course

During the second year of IB DP history, students will expand their topical study to include events in Europe, Africa and Asia. Students will examine struggles for rights and freedoms in the mid-20th century. Two case studies will be evaluated. The first case study explores the Civil Rights movement in

the US between 1954 and the passing of the Voting Rights Act in 1965. The second case explores protests against apartheid in South Africa in the years 1948-1964.

In addition, students will study the authoritarian states of the 20th century focusing on the emergence, consolidation and maintenance of power, including the impact of the leaders' policies, both domestic and foreign, upon the maintenance of power. Leaders such as Mao, Castro, Hitler and Stalin will be studied. Finally, students will evaluate the Cold War: Superpower tensions and rivalries which dominated the second half of the 20th century. This provides an international perspective by studying the role of Cold War leaders, countries and crises from more than one region of the world.

During the year, students will complete a Historical Investigation (research paper) and continue to develop document analysis and essay writing skills essential to the IB history papers 1, 2 & 3 that they will sit for in May of their senior year and that will be so critical for their success in college.

Course Objectives

- develop an understanding of, and continuing interest in, the past
- encourage students to engage with multiple perspectives and to appreciate the complex nature of historical concepts, issues, events and developments
- promote international-mindedness through the study of history from more than one region of the world
- develop an understanding of history as a discipline and to develop historical consciousness including a sense of chronology and context, and an understanding of different historical perspectives
- develop key historical skills, including engaging effectively with sources
- increase students' understanding of themselves and of contemporary society by encouraging reflection on the past.

Connection to Graduation

This course satisfies one of the three Social Studies credits required for graduation or the humanities elective requirement.

Connecticut State Department of Education Requirement: Humanities

DP 1/Grade 11 DP 2/Grade 12	Information Technology in a Global Society (HL)	5 periods/week	1 credit/yr
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Brief Summary of the Course

ITGS is the study and evaluation of the impacts of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the access and use of digitized information at the local and global level. ITGS provides a framework for students to make informed judgments and decisions about the use of IT within social contexts.

Course Objectives

- enable students to evaluate social and ethical considerations arising from the widespread use of IT by individuals, families, communities, organizations and societies at the local and global level
- develop students' understanding of the capabilities of current and emerging IT systems and to evaluate their impact on a range of stakeholders
- enable students to apply their knowledge of existing IT systems to various scenarios and to make informed judgments about the effects
- encourage students to use their knowledge of IT systems and practical IT skills to justify IT solutions for a specified client or end-user

Connection to Graduation

These courses satisfy one of the three Social Studies credits required for graduation and/or the humanities elective requirement.

Connecticut State Department of Education Requirement: Humanities

GROUP 4 – SCIENCES

MYP 4/Grade 9	Integrated Sciences	5 periods/week	1 credit
Brief Summary of the Course			
<p>This course is aligned to the Next Generation science Standards and offers freshmen the opportunity to use science and engineering practices, crosscutting concepts and disciplinary core ideas to learn how physical science and earth science concepts can be used to explain Earth's place in the universe. Earth's systems, Earth and human activity, forces and interactions, energy and waves and their applications. Students will also study engineering, technology and application of science in relation to the above concepts.</p>			
Course Objectives			
<ul style="list-style-type: none"> • Knowing and understanding scientific information surrounding earth science • Design investigation to solve problems seen in today's climate • Analyze and interpret data to support and argument • Research controversial topics in earth science and form arguments founded in research 			
Connection to Graduation			
<p>This course satisfies one of the three science credits required for graduation. Connecticut State Department of Education Requirement: STEM</p>			

MYP 5/Grade 10	Chemistry	5 periods/week	1 credit
Brief Summary of the Course			
<p>Chemistry is the study of the structure of matter, the interactions of matter and the energy exchanged during these interactions.</p>			
Course Objectives			
<ul style="list-style-type: none"> • Knowing and understanding scientific information related to structure, properties and interaction of matter. • Design investigations to solve problems related to chemical systems. • Analyze and interpret data to support and arguments. • Research and report on the impact of science on our societies. 			
Connection to Graduation			
<p>This course satisfies one of the three science credits required for graduation. Connecticut State Department of Education Requirement: STEM</p>			

DP 1/Grade 11 DP 2/Grade 12	Chemistry (SL)	6 periods/week	1.2 credits/yr
Brief Summary of the Course			
<p>Throughout this two-year experimental sciences course, students will explore stoichiometric relationships, atomic structure, periodic trends, chemical bonding and energetics. Other areas of study</p>			

include chemical kinetics, equilibrium systems, acid-base chemistry, redox chemistry and organic chemistry. Students will also work to improve lab techniques and skills.

Course Objectives

- Students will acquire knowledge of various chemical structures, properties and systems.
- Students will design scientific investigations to explore chemical systems.
- Students will analyse the validity of scientific methods and data.

Connection to Graduation

These courses satisfy one of the three science credits required for graduation and/or one STEM elective required for graduation.

Connecticut State Department of Education Requirement: STEM

DP 1/Grade 11 DP 2/Grade 12	Biology (HL)	6 periods/week	1.2 credits/yr
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Brief Summary of the Course

Biology is the study of life. An interest in life is natural for humans; not only are we living organisms ourselves, but we depend on many species for our survival, are threatened by some and co-exist with many more. From the earliest cave paintings to the modern wildlife documentary, this interest is as obvious as it is ubiquitous. Biologists attempt to understand the living world at all levels using many different approaches and techniques. At one end of the scale is the cell, its molecular construction and complex metabolic reactions. At the other end of the scale biologists investigate the interactions that make whole ecosystems function. In this class we will explore concepts along this entire scale, as well as the threads that connect them all.

Course Objectives

Explain the concepts and connections between:

- | | |
|------------------------------|--|
| • Cell Biology | • Nucleic Acids |
| • Molecular Biology | • Metabolism, Cell Respiration, and Photosynthesis |
| • Genetics | • Plant Biology |
| • Ecology | • Genetics and Evolution |
| • Evolution and Biodiversity | • Animal Physiology |
| • Human Physiology | • Ecology and Conservation |

Students will also continue to develop their ability to design and complete methods of data collection as well as analyze collected data.

Connection to Graduation

These courses satisfy one of the three science credits required for graduation and/or one STEM elective required for graduation.

Connecticut State Department of Education Requirement: STEM

GROUP 5 – MATHEMATICS

MYP 4/Grade 9	Standard Level Mathematics	5 periods/week	1 credit
Brief Summary of the Course			
MYP 4 Standard Level Mathematics focuses on topics that will serve as the foundation for all future mathematics courses. The primary objective is for students to transfer their concrete mathematical knowledge to more abstract algebraic generalizations.			
Course Objectives			
<p>Upon completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Write and evaluate expressions • Recognize and write explicit and recursive formulas for arithmetic and geometric sequences • Solve linear equations and inequalities • Represent functions using tables, graphs, and equations • Model real world situations using functions • Write and graph linear functions • Solve systems of linear equations using multiple strategies • Apply the properties of exponents to simplify expressions • Add, subtract and multiply polynomials • Solve quadratic equations using multiple methods • Graph quadratic functions 			
Connection to Graduation			
<p>This course satisfies one of the three mathematics credits required for graduation. Connecticut State Department of Education Requirement: STEM</p>			

MYP 4/Grade 9	Extended Level Mathematics	5 periods/week	1 credit
Brief Summary of the Course			
MYP 4 Extended Level Mathematics focuses on statistical and geometric concepts and processes with an emphasis on reasoning and problem-solving skills. The topics covered in this course serve as a foundation of other statistical and geometric concepts covered in higher mathematics courses. The curriculum is designed for students with a strong mathematical background who are able to commit to additional study time that may be required.			
Course Objectives			
<p>Students will develop knowledge and understanding of:</p> <ul style="list-style-type: none"> • Categorical v. Quantitative and Continuous v. Discrete data • Graphical displays of data • Measures of Center and Spread • Outliers and Skew • Two-Way Tables and Probability • Data Collection • Coordinate Algebra • Coordinate Geometry 			

- Deductive and inductive reasoning
- Proof
- Parallel lines and transversals
- Congruence and similarity
- Polygons
- Perimeter, area, and volume
- Right triangles
- Circles
- Coordinate geometry
- Transformations and symmetry

Connection to Graduation

This course satisfies one of the three mathematics credits required for graduation.

Connecticut State Department of Education Requirement: STEM

MYP 5	Standard Level Mathematics	5 periods/week	1 credit
Brief Summary of the Course			
<p>MYP 5 Standard Level Mathematics builds on topics learned in the MYP 4 Standard Level Mathematics course. The first semester of the course focuses on geometric concepts and processes with an emphasis on reasoning and problem-solving skills. The topics covered in this course serve as a foundation of other geometric concepts covered in higher mathematics courses. The second semester of the course focuses on topics in furthering students' algebra skills through more advanced and abstract algebra concepts.</p> <p>Prerequisite: MYP 4 Standard Level Mathematics or teacher recommendation</p>			
Course Objectives			
<ul style="list-style-type: none"> • Writing and graphing linear equations • Parallel lines and transversals • Congruence and similarity • Polygons & Circles • Coordinate Geometry • Transformations and symmetry • Model real world situations using functions. • Write and graph quadratic functions • Write and graph exponential equations • Right triangle trigonometry 			
Connection to Graduation			
<p>This course satisfies one of the three mathematics credits required for graduation.</p> <p>Connecticut State Department of Education Requirement: STEM</p>			

MYP 5	Extended Level Mathematics	5 periods/week	1 credit
Brief Summary of the Course			
<p>MYP 5 Extended Level Mathematics builds on topics learned in the MYP 4 Extended Level Mathematics course. The topics covered in this course focus on topics which further students' algebra skills through more advanced and abstract algebra concepts. The curriculum is designed for students with a strong mathematical background who are able to commit to additional study time that may be required.</p> <p>Prerequisite: MYP 5 Extended Level Mathematics or teacher recommendation</p>			
Course Objectives			
<ul style="list-style-type: none"> ● Set theory ● Recognize and write explicit formulas for arithmetic and geometric sequences ● Solve problems using formula for arithmetic and geometric sequences ● Model real world situations using functions ● Write and graph quadratic functions ● Write and graph exponential equations ● Write and graph logarithmic equations ● Right triangle trigonometry ● Basic concepts of probability and statistics 			
Connection to Graduation			
<p>This course satisfies one of the three mathematics credits required for graduation.</p> <p>Connecticut State Department of Education Requirement: STEM</p>			

DP 1 /Grade 11 DP 2/Grade 12	Mathematics: Applications and Interpretation (SL)	5 periods/week	1 credit/yr
Brief Summary of the Course			
<p>This course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modeling. To give this understanding a firm base, this course also includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics.</p> <p>The course makes extensive use of technology to allow students to explore and construct mathematical models. Mathematics: Applications and Interpretation will develop mathematical thinking, often in the context of a practical problem and using technology to justify conjectures.</p>			
Course Objectives			
<ul style="list-style-type: none"> ● Topic 1: Number and Algebra <ul style="list-style-type: none"> ○ Scientific notation, sequences, series, and their applications, systems of equations, polynomial equations ● Topic 2: Functions <ul style="list-style-type: none"> ○ Domain and range, determining key features of a graph, mathematical models of linear, quadratic, exponential, higher degree and sinusoidal functions ● Topic 3: Geometry and Trigonometry 			

- Distance and midpoint, volume and surface area of three-dimensional solids, right triangle trigonometry, sine and cosine rules, applications of trigonometry, circles - length of arcs and area of sectors
- Topic 4: Statistics and Probability
- Populations, samples, sample bias, outliers, graphs of data, measures of central tendency and dispersion, bivariate data, linear regression and correlation, simple probability, Venn diagrams, conditional probability, random variables, expected value, binomial distribution, Normal distributions, chi-squared test for independence, one and two-tailed t tests
- Topic 5: Calculus
- Introduction of a limit, derivatives, increasing and decreasing functions, integrals, optimization, trapezoidal rule

Connection to Graduation

These courses satisfy one of the three mathematics credits required for graduation and/or one STEM elective required for graduation.
Connecticut State Department of Education Requirement: STEM

DP 1/Grade 11 DP 2/Grade 12	Mathematics: Analysis and Approaches (SL)	5 periods/week	1 credit/yr
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Brief Summary of the Course

This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof (for instance the study of sequences and series).

The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, Mathematics: analysis and approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments.

Prerequisite: Successful completion of MYP 4 & MYP 5 Extended Level Mathematics or teacher recommendation.

Course Objectives

- Topic 1: Number and Algebra
 - Scientific notation, sequences, series, and their applications, laws of exponents, simple deductive proof, the binomial theorem
- Topic 2: Functions
 - Different forms of linear equations, concept of a function, Domain and range, determining key features of a graph, composite functions, quadratic functions, reciprocal functions, exponential functions, solving equations, and transformations of graphs
- Topic 3: Geometry and Trigonometry
 - Distance and midpoint in three dimensions, right triangle trigonometry and its applications, the unit circle, circles - radian measure, length of arcs and area of sectors, circular functions, key features of circular functions and their graphs, solving trigonometric equations
- Topic 4: Statistics and Probability

- Populations, samples, sample bias, outliers, graphs of data, measures of central tendency and dispersion, bivariate data, linear regression and correlation, simple probability, the laws of probability, Venn diagrams, conditional probability, random variables, expected value, binomial distribution, Normal distributions, standardization of normal variables
- Topic 5: Calculus
- Introduction of a limit, increasing and decreasing functions, derivatives, derivatives of trig functions, second derivatives, tangent and normals, anti-differentiation, optimization, kinematic problems, indefinite integrals, definite integrals, area under a curve

Connection to Graduation

These courses satisfy one of the three mathematics credits required for graduation and/or one STEM elective required for graduation.

Connecticut State Department of Education Requirement: STEM

GROUP 6 – THE ARTS

MYP 5/Grade 10	Art	5 periods/week	1 credit
Brief Summary of the Course			
<p>MYP 5 Art, a prerequisite for DP Visual Arts, allows students to create and present art, develop skills specific to the discipline and engage in a process of creative exploration and self-discovery. Students will demonstrate the acquisition and development of the skills and techniques of various art forms to create and present art. Students will learn to critique their own art and the art of others. Students will have the opportunity to explore various media and techniques through studio work. Students will experience the fundamental core of art and design and will focus on these through their work as well as in discussion, peer critiques, and assessments. Some topics explored are: one- and two-point perspective, shading and drawing, painting, mixed media, abstraction, the human figure, and three-dimensional art.</p>			
Course Objectives			
<ul style="list-style-type: none"> • create and present art • develop skills specific to the discipline • engage in a process of creative exploration and (self-)discovery • make purposeful connections between investigation and practice • understand the relationship between art and its contexts • respond to, and reflect on, art • deepen their understanding of the world 			
Connection to Graduation			
<p>This course satisfies the art credit required for graduation. Connecticut State Department of Education Requirement: Humanities</p>			

DP 1/Grade 11	Visual Arts (SL)	5 periods/week	1 credit
Brief Summary of the Course			
<p>The DP Visual Arts course encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with, and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts (ibo.org). In making connections to Theory of Knowledge, students study the various artistic ways through which knowledge, skills and attitudes from different cultural contexts are developed and transmitted. This course requires that students focus primarily on self-improvement, self-discovery, and expression through their artwork. It provides students with a deeper idea of what art and design can mean for working artists today as well as for themselves. Students will incorporate the mastered foundations into each lesson and project. Each lesson is open-ended. Students are required to complete an investigation workbook (sketchbook) that will include sketches and research information pertaining to each individual art project. Students will be given the</p>			

opportunity to explore various gallery shows and museums. Assessment will include a student portfolio as well as the investigation workbook.

Course Objectives

- respond to and analyze critically and contextually the function, meaning and artistic qualities of past, present and emerging art
- develop and present independent ideas and practice, and explain the connections between these and the work of others
- explore and develop ideas and techniques for studio work through integrated contextual study and first-hand observations
- develop and maintain a close relationship between investigation and a purposeful, creative process
- produce personally relevant works of art that reveal evidence of exploration of ideas that reflect cultural and historical awareness
- develop and demonstrate technical competence and artistic qualities that challenge and extend personal boundaries

Connection to Graduation

This course satisfies the humanities elective requirement.
Connecticut State Department of Education Requirement: Humanities

DP 2/Grade 12	Visual Arts (SL)	5 periods/week	1 credit
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Brief Summary of the Course

This is a continuation of the concepts, themes, skill development, creativity, self-expression and reflection students embarked upon in DP 1 Visual Arts. The focus is on the exploration of self in order to challenge and explore ideas through various media. Each project is open-ended and individualized in order to meet each student’s creative needs. Students are required to concentrate on a specific personal goal, challenge, or theme in order to improve as artists throughout the year. Students will experience how to put up and strike a gallery show by setting up a student-based art show at the end of the year. Assessment will include a professional student portfolio, investigation workbook (sketchbook), as well as the student-based art show.

Course Objectives

- respond to and analyze critically and contextually the function, meaning and artistic qualities of past, present and emerging art
- develop and present independent ideas and practice, and explain the connections between these and the work of others
- explore and develop ideas and techniques for studio work through integrated contextual study and first-hand observations
- develop and maintain a close relationship between investigation and a purposeful, creative process
- produce personally relevant works of art that reveal evidence of exploration of ideas that reflect cultural and historical awareness
- develop and demonstrate technical competence and artistic qualities that challenge and extend personal boundaries

- prepare a show of all work done, exhibit the work, with artist statements and a curatorial rationale
- create a multiple screen document comparing at least 3 works of art done by at least 2 artists from at least 2 different cultural backgrounds
- create a multiple screen document of all the necessary sketchbook pages that hit all the IB exam requirements and an explanation of each page

Connection to Graduation

This course satisfies the humanities elective requirement.

Connecticut State Department of Education Requirement: Humanities

THEORY OF KNOWLEDGE (ToK)

DP 1/Grade 11 DP 2/Grade 12	Theory of Knowledge	4 periods/week	.8 credits/yr
Brief Summary of the Course			
<p>One of the Core Requirements for the IB Diploma is the completion of Theory of Knowledge, offered as a two-year course at CIBA. Theory of Knowledge is a course that explores what we know and how we know it. This enables students to reflect upon and appreciate the importance of critical thinking about the nature of knowledge. ToK is an intrinsic part of all the disciplines that comprise the IB DP curriculum, and the connections made occur within and beyond this course—in every classroom, in every subject.</p>			
Course Objectives			
<ul style="list-style-type: none"> • make connections between their classroom and personal knowledge/experience • examine the conventions, methodologies, and perspectives that shape how knowledge is formed in different areas of knowledge (mathematics, the natural sciences, the human sciences, the arts, history, and ethics) • explore the impact of ways of knowing on the construction of shared and personal knowledge (language, sense perception, emotion, reason, imagination, faith, intuition, and memory) • investigate artifacts and real life situations that illustrate the merits and the limitations inherent in our current body of knowledge. 			
Connection to Graduation			
<p>This course is part of the DP core and is a requirement of the IB Diploma. One credit may count towards the humanities elective requirement.</p> <p>Connecticut State Department of Education Requirement: Humanities</p>			

IB DP PAMOJA ONLINE COURSES

Through a cooperative effort with the IBO and Pamoja Education, CIBA is able to offer a number of online courses for our students. This effort is intended to offer a wider range of electives to students who may be looking for courses we are not able to offer in school.

Students who are interested in taking an online course through Pamoja must apply and be approved by Administration and Guidance. Students must also be recommended by their teachers and show excellent self-management skills throughout both years in the MYP. Students are assigned one class period per day to work on their online course; students who choose an online course must be organized, self-motivated and willing to devote the necessary time to this work. Students who register for an on-line DP course through Pamoja must commit to taking both years of the course and to complete the full range of assessments and exams connected to the IB course. Failure to complete the course and/or the requirements will result in an accountability for the cost of the course.

“The Connecticut IB Academy does not discriminate on the basis of race, color, religious creed, national origin, sex, learning disability, physical disability, age, marital status, sexual orientation, mental retardation or past/present history of mental disorder in its admission policies, programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Ms. Kathleen Simoneau, Principal, 857 Forbes Street, East Hartford, CT 06118 Tel: 860.622.5590”