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Our Mission

Our hopes are high, and by them we are bound together. We aim to create an extraordinary and unique school, the first truly modern institution serving children from ages three to 18 and the first global one. We want to change for the better the lives of those students who attend and, beyond our own campuses, contribute to the cause of education on every continent. We measure our merit not through the narrowness of exclusivity but through the breadth of our impact.

Favoring our work is an emerging canon of best practices pioneered by educators who have come before us. They have taught us that a modern school recognizes that how one learns will outlast what one learns, ending lock-step, one-size-fits-all education. The Whittle Schools understand that the emotional development of their students must also be given time and sees that an ingenious facility is an ongoing lesson in design. We believe that a global system of schools will surpass a single, local one and harness the power of our new digital age. We pledge to reconceptualize the school day and year recognizing that learning happens everywhere and anytime.

Our graduates will stand out. Grounded by rigor and knowledge, they will be undaunted, creative, and bold, ready to lead or help in the wholly transformed and challenging world of their future. Each will shine in at least one loved, purposeful pursuit in which he or she will achieve excellence and a resulting lifelong confidence. All will speak other languages and study in other cultures yet remain deeply connected to their homeland. Surrounded by an expansive and diverse collective intelligence, they will forever be members of it. And through carefully carving their own character they will help goodness prevail.

Our faculty will be learners too, side by side our students. We will choose faculty because they want to guide children and have skill in and passion for their academic disciplines. They will choose us because our global scale brings them unequalled professional development; our growth provides them growth; and our rewards for them are commensurate with the great good education brings to society.

We thank those who have generously supported us, and we look forward to sharing our work with all who aspire to reimagine education.



Core Values

DARE TO IMAGINE

Our hopes are high because we are not afraid of change. We dare to challenge current paradigms, to search out great thinking and practices, and to relentlessly imagine how things could be better tomorrow than they are today.

HONOR POTENTIAL

We believe that each human being has magnificent potential. We see the uniqueness and value in every one of us, and continually look for ways to strengthen and grow that individuality.

FORGE CONNECTIONS

We are better when we are connected. We draw strength from relationships. For this reason we commit ourselves to building meaningful bonds—local and global ones—deepening our understanding of both ourselves and the world.

Learner Profile

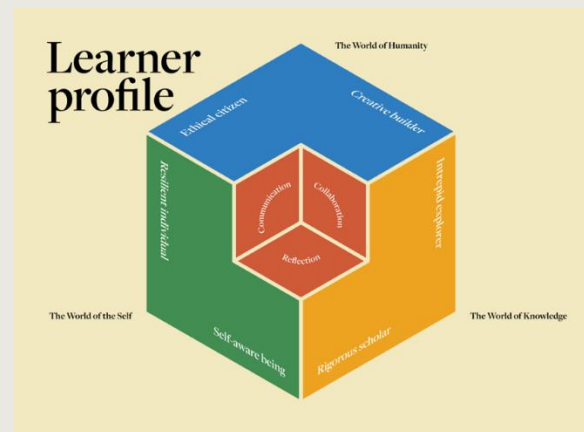
We consider everyone in our community a learner – be they student, parent, teacher, or staff. It is a deeply-held belief, given shape through our universal learner profile – the foundation for our education design.

This holistic profile also serves as a personal guide to the characteristics we want to embody when interacting with others and the areas in which we want to grow and develop.

Our goal is for our graduates to embody the ideals in our learner profile: In order to face the challenges and opportunities of the 21st century, students need to learn more than just course content. Central to our approach is the consideration of what our graduates will need to make a meaningful contribution to the world. Whittle School & Studios students will learn how to solve problems in creative ways, how to work well with others, how to research and synthesize information, and how to apply their learning to real-world problems. They will be firmly rooted in their own culture while gaining great respect for and knowledge of other cultures.

Every aspect of the curriculum, down to the way the daily schedule is structured, is built around ensuring

that students are fully developed in three spheres of life:



In Addition to our School Learner Profile, as an International Baccalaureate World School for the Diploma Program, we also aim at the IB Learner Profile.

The IB learner profile aims to develop learners who are:

- Inquirers
- Knowledgeable
- Thinkers
- Communicators
- Principled
- Open-minded
- Caring
- Risk-takers
- Balanced
- Reflective

Learning Philosophy

We Believe:

- that education must advance to meet the needs of a new era.
- that students learn and grow best when they are at the center of their learning.
- that curiosity and exploration lie at the foundation of learning.
- in students as agents—makers, problem-solvers, and innovators.
- that true mastery comes through active engagement, collaborative experiences, and deep immersion rather than passive reception.
- in teachers as both experts and lifelong learners who understand the science, art, and

craft of teaching and seek always to improve their practice.

In order to reflect these beliefs, our learning experiences – from curriculum to scheduling – are designed based on a strong academic foundation, student interests, depth and breadth of experiences, and, most importantly, active learning strategies such as Project-Based Learning (PBL) that allow for students to learn important knowledge and skills, apply them to novel situations, and reflect actively on the educational process.

Assessment Philosophy

Assessment at Whittle School & Studios is integral to all teaching and learning and reflects the school’s mission statement. It has a number of purposes. As well as supporting curricular goals, assessment encourages a holistic approach to student learning. Assessment is integrated into all teaching and learning, and is an ongoing process, where teachers identify students’ needs for support to improve the teaching and learning process. Students are encouraged to see and understand assessment as a way of developing their own learning.

OVERALL ASSESSMENT GUIDELINES

All forms of assessment should be varied. The assessment tasks both at the end of the learning period and during the learning process should enable the teacher to gather information about the students from a range of perspectives. The tasks should not be solely about the recall of factual knowledge. The variety of tasks should reflect the nature of the subject and give evidence of student understanding through authentic performance. The tasks will also be varied so that they closely match the subject-group objectives.

Assessment should be appropriate. The tasks should be age appropriate and reflect development of the student through the subject. The tasks should aim to reflect the diversity of students studying at Whittle. The tasks should reflect a variety of learning styles.

It is the task of the teacher to make assessment understandable, accessible and sufficiently rigorous. A good summative task should reflect the abilities within a class and the majority of students should be

able to achieve a level described in the descriptor. Open-ended tasks may ensure that students are able to reach the highest level on the rubric. The requirements of summative tasks should be made clear to students using task-specific clarifications. Students who have special educational needs and who may not be able to meet the objectives can have tasks which are modified. Students and parents should be informed of this. Wherever possible, summative tasks should be internally moderated in order to ensure standardization.

Assessment at Whittle is reported regularly using a mixture of comments and final grades. Written comments provide students and parents with actionable feedback that focuses on constant growth. In determining the semester and final grades, the teacher uses a ‘best-fit’ model to judge performance in each of the objectives. Grades will reflect the teacher’s professional and informed judgement of the student’s abilities. This will be based on a range of evidence gathered through the year. Teachers pay careful attention to patterns in the data such as improving performance, consistency and mitigating circumstances.

With students who require learning support, the school may develop an individualized learning plan where objectives are modified. This will be reflected in the report.

QUALITY FEEDBACK

Feedback provided by teacher on assessments are:

- **Timely:** It is provided when the student is in the learning process and there’s still time for improvement.
- **Informative and constructive:** It focuses constructively on one or more strengths of the work, identifies areas for growth, informs the student of their mastery progress and provides at least one suggestion for the next step.
- **Clear and specific:** It is specific so the student knows what to do next and provides sufficient applicable and actionable feedback and information to act upon on the next assessment.
- **Differentiated:** It meets the needs of each student with respect to the current work. For some students, a reminder is all that is needed for a next step; others may need prompts or examples.



Assessment

At Whittle School we use the mastery-based approach to assess student performance. We believe that assessment should indicate the depth of skill a student has achieved in a subject area rather than be a judgement of intelligence or innate capacity. For institutions of higher education that require numerical or grade assessment for admission we provide this table to help them “read” our students’ performance. The descriptors of the mastery levels inform the proper conversion to another system, as they give specific information about the student’s acquisition of knowledge.

We have been officially authorized as an IB World School for the Diploma Programme. This grading scale is aligned with the IB 7-point scale and will make it easier for the students’ proficiency levels to be understood in the final transcripts. The IB also has specific grade descriptors per subject. The language in the overall descriptors are aligned with subject descriptors.

At the end of a course, students will also receive an overall mastery rating in addition to the mastery rating per learning outcome. **This final rating will not be an average of ratings** but a final assessment of the student’s overall performance, which is informed by both assignments and teacher professional judgment.

These mastery ratings should not be impacted by student behavior, work ethics, effort, and the like. Such aspects of the learning process should absolutely be reported but not through academic ratings. The advisors’ comments should contain information related to these areas.

MASTERY BASED PROGRESSION

EXCELLING: Consistently produces high-quality innovative work. Has highly developed levels of subject-specific and interdisciplinary expression and thinking. Frequently transfers knowledge and skills to novel situations. Can easily explain complex ideas to others. Can research and work independently.

ADVANCING: Often produces high-quality work. Has well-developed levels of expression. Comfortably applies interdisciplinary skills. Often transfers knowledge and skills to theoretical and unfamiliar situations. Can impart learned materials to others. Can research and work independently.

MEETING: Produces high-quality work. Has strong levels of expression. Can extrapolate from ideas and information and apply them to unfamiliar situations. Uses interdisciplinary thinking and communication skills when prompted. Can research and work independently.

PROGRESSING: Produces good-quality work. Has clear powers of expression. Easily demonstrates knowledge and skills in familiar situations. Is beginning to master and demonstrate interdisciplinary thinking.

APPROACHING: Produces work of an acceptable quality. Has some appropriate powers of expression. Demonstrates partial understanding of some knowledge, skills and their application.

DEVELOPING: Produces work of emerging quality. Still developing mechanics of expression. Still developing understanding of key knowledge, skills and their applications.

BEGINNING: In process of creating work of foundational quality. Beginning understanding of expression. Beginning understanding of key knowledge and skills.

NO CREDIT: Has not completed the necessary coursework to be assessed.

WITHDRAW: Has withdrawn from the course.

The Whittle Upper School

Grades 9 and 10 are foundational years while Grades 11 and 12 allow for a higher degree of specialization. Students are encouraged to take the most challenging courses in which they can be successful. Each course meets for 70 minutes every other day. The academic year is divided into three trimesters. Course may vary in length. Some are year-long courses while others are one or two trimester-long courses.

We are still an International Baccalaureate (IB) candidate school but we expect to become fully authorized before the end of the 2020-2021 school year.

GRADES 9 AND 10 – FOUNDATION YEARS

Our Foundation Years Program provides a balance of rigorous academics, access to a myriad of activities, experiential learning and service opportunities, as well as a supportive Advisory program. The holistic nature of the Foundation Years ensures that students are extremely well prepared not only for the WDP or the IBDP, but also for lifelong learning. The breadth of study is key in helping students make informed choices as they move into the final two years of schooling.

GRADES 11 AND 12 – WHITTLE DIPLOMA PROGRAM (WDP)

The Whittle Diploma Program allows students to study a selection of rigorous IBDP courses while also providing the opportunity to take teacher-designed electives specific to students' areas of interest. It combines the best of an internationally renowned qualification with the personalized approach to education that only Whittle can provide. Students can create a more individualized High School Program while maintaining some of the IB structure and can pursue specific interests that may not be fully met by the IBDP.

The Whittle Diploma Program is composed of the following requirements:

1. At least 2-3 IB courses
2. Additional courses from the Whittle Diploma Program electives to meet graduation requirements
3. Completion of the WDP core requirements

- a. Interdisciplinary projects
- b. Creativity, Activity and Service (CAS)
- c. Capstone Research Paper

GRADES 11 AND 12 – INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME (IBDP)

The IB Diploma (IBDP) is a two-year program for students in grade 11 and 12. Students share an educational experience that emphasizes critical thinking as well as intercultural understanding and respect for others in the global community.

To earn the full IB diploma, students are required to study six subjects from the IB Curriculum:

- Three subjects must be studied at Higher Level (HL)
- Three subjects must be studied at Standard Level (SL)

Additionally, full IB diploma students are required to successfully complete the IB Core (Extended Essay, Theory of Knowledge and CAS – Creativity, Activity and Service), all external IBDP examinations (including internal assessments) in all registered IB courses and earn a total of at least 24 points (a minimum of 12 on HL subjects and 9 on SL subjects)



UPPER SCHOOL STUDENT SCHEDULE

Our schedule for the 2021-2022 school year reflects necessary changes to accommodate both the WDP and IBDP program while providing students with a structured framework that is best conducive to learning. Our Schedule is broken into two weeks – Week A and Week B.

Our day starts at 9AM, as research suggests this is the time when adolescents are most attentive and with greater ability to learn and retain knowledge and skills. We have 10-minute breaks between classes. In the middle of our day, students have 30 minutes of lunch and 30 minutes of free unstructured time to ensure they are given enough brain breaks which allow for them to optimize their learning experience.

Right after lunch, we have our Flex Period that is intentionally designed for students to receive more individualized support whether they need to be further challenged or supported. This is also a time for students to meet with the advisors to support both academic and holistic growth.

One important change for the 2021-2022 school year is the removal of a defined period for X-day. This is an opportunity for us to improve our experiential learning program. X-days are still at the core of the learning experience, but this change will allow for them to be more aligned with the curriculum of the different subject areas. This will ensure that they represent an expansion of the in-classroom learning experience. It is also important to highlight that active learning strategies are not only present on X-day but throughout all subject areas

Upper School Sample Student Schedule (2-week rotation)

Week A					
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:00 - 10:10	English Language and Literature	Math	PE / Health and Wellbeing	Core (Researching and Writing, TOK)	Creative Arts and Design
10:20 - 11:30	Sciences	World Languages	English Language and Literature	Math	Whole-Group Advisory
11:40 - 12:10	Flex Period – Interest Clubs /Acceleration / Speakers and Assembly				
12:10 - 12:40	Recess				
12:40 - 1:10	Lunch				
1:20 - 2:30	Creative Arts and Design	Individuals and Societies	Sciences	World Languages	English Language and Literature
2:40 - 3:50	PE / Health and Wellbeing	Core (Researching and Writing, TOK)	Creative Arts and Design	Individuals and Societies	Sciences

Week B					
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:00 - 10:10	Individuals and Societies	Sciences	World Languages	English Language and Literature	Math
10:20 - 11:30	Core (Researching and Writing, TOK)	Creative Arts and Design	Individuals and Societies	Sciences	World Languages
11:40 - 12:10	Flex Period – Interest Clubs /Acceleration / Speakers and Assembly				
12:10 - 12:40	Recess				
12:40 - 1:10	Lunch				
1:20 - 2:30	Math	PE / Health and Wellbeing	Core (Researching and Writing, TOK)	Creative Arts and Design	Individuals and Societies
2:40 - 3:50	World Languages	English Language and Literature	Math	Whole-Group Advisory	Core (Researching and Writing, TOK)



THE WHITTLE SCHOOL GRADUATION REQUIREMENTS

The schedule is created with courses from the areas of study in the table below. Students choose from a carefully designed set of courses. Students, Advisors, the College Counselor and the Director of Studies design a path that is right for them and that will ensure they meet the minimum graduation requirements by the end of Grade 12.

In addition to earning the necessary credits for graduation, students need to:

- Earn at least 48 credits in 4 years of course work.
- Complete a minimum of 1 Signature Project each year
- Engage in service-oriented activities for at least 36 months from Grade 9
- Write a Capstone Research Paper by the end of Grade 12

Group of Study	Area of Study	Minimum Required Credits
1	English Language & Literature	12
2	Individuals & Societies	8
3	Math	9
4	Science	9
5	Language Acquisition	6
6	Creative Arts & Design	4
7	PE & Health	4
8	Core	4

The Upper School At a Glance

	English Language & Literature	Individuals & Societies	Science	Math	Language Acquisition	Creative Art & Design (CAD)	PE & Health	Core
9 th	English Language and Literature	Foundations of Global interdependence	Integrated Physics & Chemistry	Integrated Algebra 2 & Geometry	Spanish Mandarin	Foundational CAD + CAD Electives	Upper School PE & Health + Athletics	Independent Research and Interdisciplinary Studies

10 th	English Language and Literature	US History	Integrated Chemistry & Biology	Advanced Algebra 2 & Statistics	Spanish Mandarin	Foundational CAD + CAD Electives	Upper School PE & Health + Athletics	Independent Research and Interdisciplinary Studies
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Whittle Diploma Program (WDP) Options

11 th	English Language and Literature	Comparative Politics	Advanced Biology	Statistics	Spanish Mandarin	Extracurricular CAD Electives	Athletics Electives	Interdisciplinary Projects Creativity, Activity, Service (CAS) Capstone Research Paper
12 th	Electives	Human Geography Electives	Advanced Physics Electives	Pre-calculus Calculus Electives				

*The next section of this document will highlight some possible electives per subject group

International Baccalaureate Diploma Program (IBDP) Options

11 th	IB Language A English Language & Literature	IB History or IB Economics	IB Physics or IB Chemistry	IB Math Analysis & Approaches	IB Language B: Spanish or Mandarin or Self-taught second language (School Supported)	IB Visual Arts IB Theater IB Music	--	Extended Essay (EE)
12 th								Creativity, Activity, Service (CAS) Theory of Knowledge (TOK)



The Upper School Course Guide

GROUP 1 - ENGLISH LANGUAGE & LITERATURE

ENGLISH LANGUAGE AND LITERATURE 9: THE INDIVIDUAL AS PART OF SOCIETY

Teacher: Geraldine Oshman

Grade 9 English Language & Literature: The Individual as Part of Society is a year-long course organized around various genres of literature, including novels, non-fiction expository texts, graphic creative novels, drama, and poetry.

The course provides a wide range of learning opportunities, including daily and longer-term projects, in order that students of all ability levels may be able to reach their respective potentials and be successful. By emphasizing instruction in the development of clear argumentation, support, and structure of analytical paragraphs and essays, students will construct multi-paragraph essays that respond to non-fiction texts, analyze literature, and persuade an audience. Analysis is a key skill that students will develop as they explore the significance of a text and the elements of writing that create meaning. To succeed in this, students will develop and practice research skills. Students will recognize and understand a variety of literary elements (terms and techniques). Students will also be challenged to grow in their practical language skills through class discussions, formal and informal writing assignments, creative projects, and oral presentations. Students will continue to develop grammar, punctuation, and vocabulary skills.

ENGLISH LANGUAGE AND LITERATURE 10: THE ONGOING STRUGGLE FOR FREEDOM

Teacher: Geraldine Oshman

Grade 10 English Language & Literature: The Ongoing Struggle for Freedom is a year-long course organized around various genres of literature, including novels, non-fiction expository texts, and poetry.

Throughout the year, the course will examine the arc of slavery in the United States and the struggle for independence. It will reflect on the individual's reaction to unfair social systems and practices.

The course provides a wide range of learning opportunities, including daily and longer-term projects, in order that students of all ability levels may be able to reach their respective potentials and be successful. By emphasizing instruction in the development of clear argumentation, support, and structure of analytical paragraphs and essays, students will construct multi-paragraph essays that respond to non-fiction texts, analyze literature, and persuade an audience. Analysis is a key skill that students will develop as they explore the significance of a text and the elements of writing that create meaning. To succeed in this, students will develop and practice research skills. Students will recognize and understand a variety of literary elements (terms and techniques). Students will also be challenged to grow in their practical language skills through class discussions, formal and informal writing assignments, creative projects, and oral presentations. Students will continue to develop grammar, punctuation, and vocabulary skills.

IB ENGLISH LANGUAGE AND LITERATURE

Teacher: Stephanie Tucker

In the International Baccalaureate (IB) *Language and Literature* course, students study a wide range of literary and non-literary texts in a variety of media including novels, short stories, poetry, creative nonfiction, literary theory, academic essays, sociolinguistics, critical analysis, film, intermedia and more. Students examine communicative acts across primary literary and non-literary forms, using JSTOR to research and write critical and comparative analyses in Modern Language Association (MLA) format. They investigate the nature of language and how identity and culture shape it. They engage with a wide range of global works with a special focus on marginalized voices. In this two year course, students prepare for collegiate study and IB examinations: timed critical analyses, a timed comparative analysis, an individual oral examination and an additional critical analysis essay for students who choose the HL option. *Language and Literature* also prepares students for their IB Extended Essay.



ENGLISH LANGUAGE AND LITERATURE 12

Teacher: Stephanie Tucker

In *English Language and Literature 12*, students engage in creative and critical studies of the novel, short story, poem, personal essay, cinema, literary and film theory and more. They examine primary works, using JSTOR to research and write critical and comparative analyses in Modern Language Association (MLA) format. Additionally, they participate in writing workshops for both creative works and critical essays, receiving feedback in support of culminating creative and academic portfolios presented upon course completion. This one year course prepares students for the writing and research skills necessary for collegiate study and their culminating senior capstone research paper.

GROUP 2 – LANGUAGE ACQUISITION

CHINESE AND SPANISH

Teachers: Almudena Menchen, Yuan Rui, Shiyong Zhang, Jose Manzano, Summer Nai, and Jamir Kai

Students in the Chinese or Spanish language program at Whittle School & Studios seek to develop skills and understanding to bring linguistic and cultural competence to their future careers and experiences. The five “C” goal areas, established by American Council on the Teaching of Foreign Languages (ACTFL), are: Communication, Cultures, Connections, Comparisons, and Communities.

Diving into various topics, students work towards developing skills and understanding to communicate effectively in the target language in order to function in a variety of situations and for multiple purposes through three modes of communication: Interpersonal, Interpretive, and Presentational.

Students in all levels of the target language work on developing four main components of language proficiency: listening, speaking, reading, and writing. As they progress, they will be able to focus some of their attention on their personal choice(s) within prioritized areas. These areas cover three major domains we refer to as the World of Self, the Natural World, and Human Society & Cultures.

All of our courses also prepare students to be able to engage with IB Additional Language courses. We

offer both ab initio (introductory) and Language B levels of both Chinese and Spanish.

IB language study begins or builds on a student’s prior exploration of language.

CHINESE AB INITIO

Teachers: Shiyong Zhang

IB CHINESE – LANGUAGE B

Teachers: Yuan Rui

SPANISH AB INITIO

Teachers: Jose Manzano

IB SPANISH – LANGUAGE B

Teachers: Almudena Menchen

GROUP 3 – MATHEMATICS

INTEGRATED ALGEBRA 2 AND GEOMETRY

Teacher: Katherine Nugent

Integrated Algebra 2 and Geometry is the first level of a two-level integrated sequence of mathematics study in the Upper School. The course emphasizes mathematical reasoning and fosters the development of a growth mindset for mathematics through a discovery, exploration, skill-building, and understanding. The course is designed to deepen students’ understanding of mathematics through recognizing and generalizing patterns, developing and understanding multiple solution pathways for problems, and learning to employ the language of mathematics to explain and justify their reasoning. In addition to exploring a core foundational set of algebra topics, students engage with topics from geometry, right-triangle trigonometry, statistics and probability, computational thinking, and financial applications. Students focus on conceptual understanding and skill-building and are also provided with multiple opportunities to pursue and extend open-ended problems to think deeply and richly about mathematics.

ADVANCED ALGEBRA 2, PROBABILITY, AND STATISTICS

Teacher: Katherine Nugent

Advanced Algebra 2, Probability, and Statistics is the second level of Whittle’s two-level integrated

sequence of mathematics study in the Upper School and is a continued development of the concepts, skills, and dispositions of *Integrated Algebra 2 and Geometry*. Students deepen their understanding of the function concept through study of polynomials and complex numbers, exponential and logarithmic functions, mathematical modeling, and optimization. Students expand their mathematical skills through an introduction to vectors and matrices and deepen their knowledge of probability and statistics techniques through experience with conditional probability, regression analysis, sampling theory, and experimental design. Throughout the course, students are encouraged to extend their learning through the exploration of applications to STEM, social sciences, finance, and computational thinking, among other areas as dictated by student interests.

PRECALCULUS

Teacher: Guy Nicholson

Precalculus is the third level of Whittle's math program in the Upper School. This class focuses on the topics of Precalculus and Trigonometry and prepares students for future study of Calculus. Students refine their understanding of functions in an introductory unit, with an emphasis on deepening conceptual understanding of function behavior, graphs, domain, and range. Other topics include trigonometric functions and their graphs, inverse trigonometry, trigonometric identities, analytic trigonometry, polar coordinates and functions, parametric equations, vectors, and sequences and series. As time allows, students may also study conic sections and/or matrices.

IB MATHEMATICS: APPROACHES AND ANALYSIS

Teacher: Guy Nicholson

The IB DP *Mathematics: Analysis and Approaches* course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. The focus is on developing important mathematical concepts in a comprehensible, coherent and rigorous way, achieved by a carefully balanced approach. Students are encouraged to apply their mathematical knowledge to solve abstract problems as well as those set in a variety of meaningful contexts. *Mathematics: Analysis and Approaches* has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments. Students should expect to develop insight into mathematical form and structure, and should be intellectually equipped to appreciate the links between concepts in different

topic areas. Students are also encouraged to develop the skills needed to continue their mathematical growth in other learning environments. The internally assessed exploration allows students to develop independence in mathematical learning.

MULTIVARIABLE CALCULUS AND DIFFERENTIAL EQUATIONS

Teacher: Guy Nicholson

Multivariable Calculus and Differential Equations covers differential, integral and vector calculus for functions of more than one variable. These mathematical tools and methods are used extensively in the physical sciences, engineering, economics and computer graphics.

Multivariable calculus is a highly geometric subject. Students in this course study graphs and relate them to derivatives and integrals. More variables means more geometric dimensions, which makes visualization of graphs more difficult, more rewarding, and more useful.

By the end of the course, students will know how to differentiate and integrate functions of several variables. In single variable calculus the Fundamental Theorem of Calculus relates derivatives to integrals. In multivariable calculus, the capstone to the course will be the three theorems (Green's, Stokes' and Gauss').

GROUP 4 – SCIENCES

INTEGRATED BIOLOGY & CHEMISTRY

Teacher: Mercinda Witherspoon

Integrated Biology & Chemistry is a year-long exploration of Biology and Chemistry. Topics covered in the course include Experimental Design, Macromolecules, Metabolism, and Cycles of Matter, Cells and Comparative Anatomy, Genetics, Ecology Basics, Unit Analysis, The Mole and Gas Laws, and Stoichiometry.

INTEGRATED PHYSICS & CHEMISTRY

Teacher: Andrew Gillies

Integrated Physics and Chemistry is a year-long course giving students the opportunity to explore basic physical science concepts and their relevance to the modern world. In this course, students explore the



structure and properties of matter and the ways that changes in matter affect their everyday lives. Students conduct laboratory and field investigations using safe and appropriate practices. They also use critical thinking, scientific reasoning, and problem solving to make informed decisions.

Integrated Physics and Chemistry includes the following topics: Structure and Properties of Matter, Chemical Reactions, Nuclear Processes, Forces and Motion, Types of Interactions including electricity and magnetism, Definitions of Energy, Conservation of Energy and Energy Transfer, Relationship between Energy and Forces.

IB CHEMISTRY

Teacher: Mercinda Witherspoon

IB Chemistry is a two-year lab science course which explores many topics including Lab Safety, Atomic Structure and Electron Configuration, The Periodic Table, Ionic Compounds, Covalent Bonds and Molecular Forces, Carbon and Organic Compounds, The Mole, Stoichiometry, Chemical Equations, Causes of Change, Gases and Liquids, Solutions, Chemical Equilibrium, Acids and Bases, and Rates of Reactions.

By the end of the course, students will be able to demonstrate an understanding of the scientific process through the ability to design, conduct, and analyze sound experiments. The topics covered give students the necessary fundamental concepts and skills in chemistry to see the connection between the disciplines and their application to real-world experiences. It also provides a solid foundation for their second year of study and help further prepare them for IB assessments (internal and external)

IB PHYSICS

Teacher: Andrew Gillies

Physics is the most fundamental of the experimental sciences, as it seeks to explain the universe itself, from the very smallest particles to the vast distances between galaxies. Despite the exciting and extraordinary development of ideas throughout the history of physics, observations remain essential to the very core of the subject. Models are developed to try to understand observations, and these themselves can become theories that attempt to explain the observations.

IB Physics provides students with opportunities to develop manipulative skills, design investigations,

collect data, analyze results and evaluate and communicate their findings.

The content for this two-year IB course includes: Measurements and uncertainties, Mechanics, Thermal physics, Waves, Electricity and magnetism, Circular motion and gravitation, Atomic, nuclear and particle physics, Energy production, and Astrophysics.

GROUP 5 – INDIVIDUAL AND SOCIETIES

FOUNDATIONS OF GLOBAL INTERDEPENDENCE

Teacher: Andrew Lehto

Foundations of Global Interdependence is an introduction to broad field social science. Introducing basic concepts of human geography, political science, economics and history, the class seeks to build an introductory framework for students to begin preparing for the IB Diploma Program in years 11 and 12. The class covers the arc of world history from ancient, modern, and contemporary lenses. It weaves insights from many disciplines to form a single story that helps us better understand people, civilizations, and how we are connected to everything around us. Students have the opportunity to develop their own cultural competencies by examining how different approaches to socioeconomic global issues are rooted in cultural differences and how global networks bring us all together.

US HISTORY

Teacher: Randal Littlefield

What is an inalienable right? What is the practical definition of equality? What is the true meaning of liberty and justice for all? *US History* addresses these and other questions about the theory and practice of a democratic republic throughout America's history. The central theme is the growth of America's revolutionary ideals from Independence through the Civil War, and to the Civil Rights Movement of the 1950s and 1960s. Students examine the evolution of America's national identity, its political and constitutional heritage, the role of individuals of greater and lesser fame in society, the practical meaning of its democratic ideals, and the issue of tolerance in a complex and multi-cultural society. Each part of the course is constructed around a central theme tracing the development of civitas in the United States, beginning and ending with the modern-era Civil Rights Movement. In between, the



course of study moves backwards to study the birth documents of the American Republic before returning to the history of sectionalism and the Civil War—the most significant challenge to the American experiment in democratic republicanism—and the legacy of that war on society, government, and justice: proceeding to the final years of the Civil Rights era. The focus is on the central problems for each generation: 1) the nature of constitutional government and union; 2) a second revolution confronting the contradictions in America’s founding ideas; finally, 3) the issue of segregation and civil rights, and the continuing struggle to come to grips with racism and maintain the ideals of self-government.

HUMANITY: A MORAL HISTORY OF THE TWENTIETH CENTURY

Teacher: Randal Littlefield

Humanity: A Moral History of the Twentieth Century is inspired and guided by the work of ethics philosopher Jonathan Glover, whose book, *Humanity: A Moral History of the Twentieth Century* forms the core text of the class. It examines war and peace in modern society. War and its attendant atrocities are the dominant themes, and their extension into contemporary thinking about the human condition. The essential questions at the heart of the course are these: What moral resources can we call upon as soldiers and citizens to resist the traps of war and violence? What forces/choices erode our moral identity and resources? In questions of war or self-survival, are there any limits to the means that are employed? What are the consequences of the choices we make in defending—or expressing ourselves—as nations and as individuals? Is there ever such a thing as a “just war?”

IB HISTORY

Teacher: Randal Littlefield

IB History is a two-year programme focused on the history of the world in the 20th century. The overarching theme is centred on IB Prescribed Subject (P/S), the Move to Global War, and the Cold War that followed. It examines two devastating world wars, the twin threats of fascism and communism, and the legacy of a cold war fought under the spectre of a nuclear cloud. Looming in the shadows is the Holocaust, the single event that poses a fundamental challenge to civilization’s ideals. The course offers a mature consideration of themes and creation of historical understanding relevant to the 21st century in thinking about human nature, the breadth and depth of the human experience, and what historian

Nora Levin called “the debasement of traditional western values at the hands of a highly developed society, a society which made mass murder a civic virtue” (*The Holocaust Years*, x). The World History Topics (WH/T) for the P/S studies include 1) Authoritarian States (Japan, Mussolini’s Italy, Hitler’s Germany, and Stalin’s Soviet Union) and 2) SuperPower Tensions and Rivalries in the Cold War. The Higher Level (H/L) emphasis on the History of the Americas (IB HL) fleshes out the curriculum with two additional topics: the Great Depression and the Second World War. The third topic—the Americas and the Cold War—overlaps with the Cold War: SuperPower Tensions and Rivalries (WH/T). A particular flashpoint of this dual lens will be the Cuban Missile Crisis, which will also link to Authoritarian States, both in the USSR and Castro’s Cuba. The course will culminate in the IB exams, scheduled for May 2023.

IB ECONOMICS

Teacher: Andrew Lehto

Economics is an exciting, dynamic subject that allows students to develop an understanding of the complexities and interdependence of economic activities in a rapidly changing world. At the heart of economic theory is the problem of scarcity. While the world’s population has unlimited needs and wants, there are limited resources to satisfy these needs and wants. As a result of this scarcity, choices have to be made. *IB Economics*, at both SL and HL, uses economic theories to examine the ways in which these choices are made: at the level of producers and consumers in individual markets (microeconomics), at the level of the government and the national economy (macroeconomics), and at an international level where countries are becoming increasingly interdependent through international trade and the movement of labor and capital (the global economy).

GROUP 6 – CREATIVE ARTS & DESIGN

INTRODUCTION TO ACTING

Teacher: Katherine Nugent

Introduction to Acting is a one-trimester elective course which takes students through individual and group exercises, monologues, improvisations, and



scene studies. This workshop eclectic in method helps students develop their acting potential and sharpen their performing skills.

IB THEATER

Teacher: Katherine Nugent

Students begin their study in *IB Theater* by exploring the questions: What is theater? Where does it come from? Why do we make it? They are introduced to the concept of TEAM (tension, emotion, atmosphere and meaning) as a tool for analyzing moments of theater and consider the different roles involved in theater creation (Creator/Director/Designer/Actor/Spectator). The students co-create expectations and norms for their study and practice and develop skills and proficiencies which will help them through this two-year program and prepare them for IB exams (internal and external) in May of 2023.

VISUAL ARTS

Teacher: Sandra Gobar

Visual Arts is a trimester-long course that focuses on portfolio development as the students continue to develop skills in producing high quality works of art in preparation for the IB + Non IB Visual Arts [SL + HL1] Program. Emphasis is placed on creating more complex analytical and innovative personal visual statements. A wide range of materials and processes are further explored, and students have the opportunity to focus on a chosen investigative narrative subject and medium. Students examine the world of contemporary art, make connections to other disciplines and current events, while gaining understanding of the artist' ideas and intentions. Generally, laboratory in nature, Visual Arts explores and give experience in two-dimensional [drawing, painting, printmaking] and three-dimensional [sculpture, ceramics, textiles] formats and integrates art history, design principles, and aesthetic criticism and response.

IB VISUAL ART

Teacher: Sandra Gobar

IB Visual Art students engage in the two-year program with the expectation of demonstrated growth and commitment through the study of art and the interrelationship between their research, their artistic production and communicating visual arts. The goals of the *IB Visual Art* course at the Higher and Standard levels are: to provide students with opportunities to make meaningful personal, socio-

cultural and aesthetic experiences through the production and understanding of art; to investigate past, present, and emerging forms of visual arts and engage in producing appreciating and evaluating these; to take responsibility for the direction of their learning through the acquisition of effective working practices; to build confidence in responding visually and creatively to personal and cultural experiences; to develop an understanding of visual arts from a local, national, and international perspective; and to develop skills in, and sensitivity to, the creation of works that reflect active and individual involvement.

MUSIC APPRECIATION

Teacher: Linda Shea

Music Appreciation seeks to further instill an appreciation and an understanding of music from around the world, focusing on music history. The course offers guidance on how to play instruments and provide instruction and practice in reading music and singing. In support of one day having a school band and orchestra, students create small chamber group and jazz combos as well as support solo singer/songwriters. There is also an increased focus on formal music composition and solo performances.

IB MUSIC

Teacher: Linda Shea

IB Music is an intensified version of Music Appreciation, providing a deeper understanding of music from around the world, with a more intense focusing on music history. Students continue to receive guidance on how to play instruments and instruction on and practice in reading music and singing, but the emphasis is in preparing for solo live and recorded performance as well as music composition, in addition to writing about music for the IB exam.

GROUP 7 – PE & HEALTH

UPPER SCHOOL PE

Teachers: Shaina Chafin, Matthew Gaskins, and Crystal Shade

The Whittle School & Studios *Physical Education* program emphasizes our single most important outcome—the development of Physical Literacy. The aim of *Physical Education* is to develop individuals with the disposition to enjoy a lifetime of physical activity and well-being. Students develop a sense of



joy and excitement through physically active play, proficiency in a wide variety of motor skills, an appreciation and enjoyment of human movement, fitness and well-being through an active lifestyle.

The Physical Education Program is guided by the following principles of learning:

- Learning requires the active participation of the student
- Individuals learn in a variety of ways and at different rates
- Learning must be applied to new experiences to attain understanding
- Targeted feedback enhances the quality of the learning process

GROUP 8 – CORE

Interdisciplinary Courses have been created around a common topic to highlight the importance of understanding the inter-relationship of knowledge, rather than having it compartmentalized. It is very valuable in supporting students to see their learning as coherent and meaningful. These courses also focus on researching and writing towards a service mindset.

CORE 9 – CORE PREP 1

Teacher: Geraldine Oshman

Core Prep 1 is a year-long course which explores research and writing by focusing on building 21st century skills, using the inquiry process, and developing projects.

The term “21st-Century Skills” refers to skills needed to succeed not only in school, but in life and later in the workforce. The course focuses on topics such as critical and creative thinking, the inquiry process, problem solving, communicating, and collaborating. *Core Prep 1* aligns with *Theory of Knowledge* in that it explores how individuals learn and process information, come up with solutions, and categorize information. It helps prepare students for the Extended Essay by building on students’ research skills and aligns with CAS, focusing on a finished project and service learning at the end of the year.

CORE 10 – CORE PREP 2

Teacher: Geraldine Oshman

Core Prep 2 is a year-long course which expands on existing research and writing skills to help students

prepare for the Core in the IB Diploma Program (DP). To align with the structure of the Core in DP, each trimester focuses on all three elements of the Core, beginning with a focus on *Theory of Knowledge* and ending the year with a student-guided “passion project.”

GRADE 11/12 CORE

Teacher: Andrew Lehto, Keats Kennelly, Andrew Gillies, respectively

Made up of the three required components, the DP Core aims to broaden students’ educational experience and challenge them to apply the knowledge and skills gained from all courses of study.

The three core elements are:

- **Theory of Knowledge (TOK)**, in which students reflect on the nature of knowledge and on how we know what we claim to know.
- **The Extended Essay (EE)**, which is an independent, self-directed piece of research, finishing with a 4,000-word paper.
- **Creativity, Activity, Service (CAS)**, in which students complete a project related to those three concepts.

The Upper School Advisory Program

ADVISORY AND ADVISOR

Advisory brings wisdom and research from multiple disciplines together with the Whittle mission in order to inspire, educate, and empower students to engage thoughtfully and contribute meaningfully to their communities near and far. Whittle Schools and Studios strives to foster the holistic development of its students, supporting their personal, social, emotional and intellectual needs. As an education institution, we understand that in order to graduate students who are prepared for college, career and responsible citizenship in the 21st century, we must offer more than academic instruction; we must

address students holistically and promote physical and mental health as well as social and emotional development. A school is more than an institution of learning; it is a place where young people form their identities and learn how to have healthy, successful relationships of all kinds, with each other and with adults.

As educators, one of our first responsibilities is to offer opportunities for authentic relationships between young people and adults to develop. This foundation of trust and mutual respect will spur the growth of thriving ecosystems in which students have choice, voice and agency. An intentionally designed advisory structure builds community, provides students with a safe environment, and forms the basis of a student-centered school where all students have a trusted adult invested in their success and know their contributions and perspectives are valued. The advisor can also be a supportive person for parents to contact when they need to. Being a parent can be a complex and difficult thing and parents should not feel that they have to parent alone. A caring advisor can help the whole family to have the best school experience at Whittle School.

Advisory is an approach.

Advisory is not a single experience, but a combination of several different practices encouraging a student's academic and holistic growth. These are:

1. **Classroom Teaching and Learning-** A teacher's formal and informal interactions, their teaching and learning practices and pedagogies, as well as their feedback and assessment practices should reflect an advisory approach that is growth oriented and shows their care for the students in their charge.
2. **Advisory Class/Morning Meeting-** Each week during a dedicated time, students are together in a group, which gives them opportunities to develop social, emotional and metacognitive skills.
3. **One on one meetings With Advisees-** One on one meetings with individual students are an important way that advisors establish rapport and trust with their advisees. These meetings generally occur bi-weekly.
4. **Reporting and Communication-** The advisor is the primary person parents should call with questions and information the school needs to

know. Each advisor is assigned approximately 12 advisees. Reporting and communication includes holding parent teacher conferences and helping the students develop and curate portfolios each trimester.

The integration of these four areas becomes the advisory experience. Relevant and important, these areas individually and together create a sum greater than its parts.

At the beginning of every month, our teachers receive a set of activities and guidance to lead the advisory sessions under a specified theme that is both relevant and engaging. In order to keep parents informed about the direction of advisory that month, parents receive a letter containing the overall objectives for both the whole-group advisory sessions and the individual sessions.

The Flex Period

ACHIEVING MORE WITHIN THE SCHOOL DAY

We have moved our Flex Period to the middle of the school day to give it more structure and relevance. This allows for the Flex period to be a time when complementary activities can take place as well as an opportunity to accelerate students in their own learning.

The Flex Period weekly structure will be as follows:

1. **Interest Clubs** – On Mondays and Wednesdays, the Flex Period will contain both teacher and student-led clubs which allow for students to pursue their interests, explore new passions and apply their learning actively. Examples of clubs to take



place during this time are: eSports, Model United Nations (MUN), Robotics, Math and Science Olympics, Choir, Athletics, Second-language conversation groups, Debate, Chess, Improvisation. The specific offerings will be created with students and teachers at the beginning of the school year. Some may last for the entire year or other periods of time. Some may be entirely new while others will be a continuation of projects from last year such as our Debate Club.

2. **Acceleration** – On Tuesdays and Thursdays, the Flex period is an opportunity for students to connect with their classroom teachers as an effort to ensure they have this extra time to solve doubts, follow up on classroom activities or simply challenge themselves in a more individualized way. Important to highlight that this is not the only opportunity when a student’s specific needs will be handled individually. Our teaching and learning approach already promotes personalization strategies in all classes through tiered and differentiated activities to meet students where they are at. This period is also not another class per se but an opportunity to build on the work already being developed in the classroom at a different pace.
3. **Speaker of the week / Assembly** – On Fridays, in collaboration with our Student Council, we hope to host weekly speakers allowing us to draw from the wealth of knowledge that our closer and wider community possess. The topics will vary. They may be related to current events, projects that students may be developing, career presentations. Our goal is to start the year drawing from our faculty and parent body. This day will also be used for Divisional Assemblies which may be Middle and Upper School together or separately. These presentations will also but not solely be aligned with advisory themes and monthly academic themes such as Black History Month and National Hispanic History Month.

This Flex Period structure will enhance the overall learning experience by providing intentionally designed activities to the school day while providing students with opportunities to listen to experts, individualize their learning and explore their passions.

