

# MVHS IB Course Offerings

## GROUP 1

### **IB English HL1**

Course # 1023

Grade: 11

*Prerequisite:* Grade B or better in English II or grade C or better in AP English Language

*Length:* First year of a two-year course

This course meets the UC/CSU and District graduation requirements for English credit. As prescribed by the IB curriculum, the English A: Literature course assembles literature from four genres, three periods of time, and three places in the world. It supports the IB philosophy of international awareness with a rigorous course of study spanning culture, race, genre, time, and gender boundaries. Upon completion of this course, students will have developed healthy attitudes of tolerance, empathy, and a genuine respect for perspectives different than their own. The course prepares students to excel in literature or related studies at the university level. Assessments allow students to display their knowledge, critical thinking skills, and understanding of other cultures. The following IB assessment is conducted in the first year of the course: HL Essay; this assessment targets research, editing, and citation skills. The HL Essay asks students to write a 1200-1500 word formal essay, following a line of inquiry of their own choice into one of the texts studied in the course. This is a college level course, and as such, mature material may be read and discussed. The IB exam will be offered in the second year of the course.

### **IB English HL2**

Course # 1024

Grade: 12

*Prerequisites:* Grade C or better in IB English HL1

*Length:* Second year of a two year course

This course meets the UC/CSU and District graduation requirements for English credit. Two units of study in the second year include: Detailed Study and Literary. It supports the IB philosophy of international awareness with a rigorous course of study that spans culture, race, genre, time and gender boundaries. Upon completion of this course students will have developed healthy attitudes of tolerance, empathy, and a genuine respect for perspectives different than their own. The course prepares students to excel in literature or related studies at the university level. Assessments allow students to display their knowledge, critical thinking skills, and understanding of other cultures. The following assessments are conducted in the second year: Individual Oral Commentary and Paper 1 and 2. This is a college level course, and as such, mature material may be read and discussed.

## GROUP 2

### **IB GERMAN SL**

Course # 4330

Grade Level: 11-12

*Prerequisite:* Grade A or B in German 3

*Length:* 1 year

This course meets UC/CSU and District requirements for world language credit. This course will provide students with the opportunity to build on their previous language experience. The purpose of this course is to develop moderate language skills in listening, reading, writing, and oral communication. In addition, students will explore the culture and contemporary issues in

German-speaking countries. Materials used consist of a wide range of texts from the media, arts, leisure, international affairs, and new technologies. SL students will benefit from the flexible nature of a course without a prescribed text list. The course will be taught in the target language.

### **IB SPANISH SL**

Course # 4126

Grade Level: 11-12

*Prerequisite:* C or better in Spanish 3

*Length:* 1 year

This course meets UC/CSU requirements for world language credit. The focus of this course will be on language acquisition and Spanish cultural awareness. The purpose is to develop moderate language skills in listening, speaking, reading and writing and for students to express themselves in a generally but culturally appropriate manner. By studying the language and culture within the context of Spanish speaking countries students will also be prepared to make a positive impact on humanity. During the course students will also study grammar within the context of the following IB themes: Identities, Experiences, Human Ingenuity, Social Organization, and Sharing the Planet. The majority of the class will be conducted in the target language.

### **IB SPANISH HL1**

Course #: 4127

Grade Level: 11

*Prerequisite:* Grade A or B in Spanish 3

*Length:* 1st year of a 2-year course

This course meets UC/CSU and District graduation requirements for world language. The focus of this course will be on language acquisition and Spanish cultural awareness. The purpose is to develop language skills in listening, speaking, reading and writing and for students to express themselves in a culturally appropriate manner. The course will include the study of the Spanish-speaking countries, people, and culture. The chosen works will encourage the investigation of cultural awareness in literature and film and will promote tolerance, empathy, and a genuine respect for perspectives different than their own. The course will take an interdisciplinary approach whereby the instructor will work with other colleagues in different disciplines to help students create overlapping projects whose end result will be both synergistic and complementary. Target language exposure will increase every year.

### **IB SPANISH HL2**

Course # 4128

Grade Level: 12

*Prerequisite:* Grade A or B in IB Spanish HL1

*Length:* 2nd year of a 2-year course

This course meets UC/CSU and District graduation requirements for world language. The focus of this course will continue to be on language acquisition and Spanish cultural awareness. The purpose is to develop language skills in listening, speaking, reading and writing and for students to express themselves in a culturally appropriate manner. The course will include the study of the Spanish-speaking countries, people, and culture. The chosen works will encourage the investigation of cultural awareness in literature and film and will promote tolerance, empathy, and a genuine respect for perspectives different than

their own. Students are required to participate in oral presentations as part of the IB assessments. Target language exposure will increase every year.

### **IB FRENCH SL**

*Course # 4226*                      *Grade Level: 12 only*  
*Prerequisite: Grade C or better in French III or Adv. French III.*  
*Length: 1 Year*

This 4th year course meets UC/CSU and District graduation requirements. This course prepares students to take the French IB SL speaking, writing and reading assessments. The course enriches written and oral language fluency and cultural understanding of the francophone world. Students expand their capacity to integrate as a traveler, a student or a resident in a French speaking country. General concepts studied encourage students to practice expressing their critical thinking through oral and written French language as they analyze authentic French language through literature, periodicals and cinema. At least 90% of the instruction is in French.

### **IB FRENCH HL2**

*Course # 4228*                      *Grade Level: 12 only*  
*Prerequisite: Grade C or better in Adv. French III.*  
*Length: 2nd year of a 2-year course*

This 4th year course meets UC/CSU and District graduation requirements. This course prepares students to take the French IB HL speaking, writing and reading assessments. Students receive in-depth training in speaking and writing proficiency, they learn to use advanced grammatical and idiomatic structures, and they receive extensive practice expressing their critical thinking through oral and written French language as they analyze authentic French language through literature, periodicals and cinema. The course enriches written and oral language fluency and cultural understanding of the francophone world. Students are required to participate in oral presentations as part of the Internal Assessments for IB. 95% of instruction is in French.

### **GROUP 3**

#### **IB HISTORY OF THE AMERICAS HL1**

*Course # 1602*                      *Grade Level: 11*  
*Prerequisite: A or B in World History recommended*  
*Length: 1st year of two-year course*

This course meets both UC/CSU and District graduation requirements for History and Government/Economics credit. The purpose of the course is to offer students a higher-level academic course that will prepare them for academics in college. The course will put a strong emphasis on critical thinking and analytical skills, including understand multiple interpretations of historical events. It involves the study of a variety of types of history, including political, economic, social and cultural, and provides a balance of structure and flexibility. The first year of the course will cover one Prescribed Subject and two 20th Century World History Topics. Topics covered under the first year of study will include: (1) The Move Towards Global War (2) Authoritarian States (3) The Cold War.

#### **IB HISTORY OF THE AMERICAS HL2**

*Course # 1603*                      *Grade Level: 12*  
*Prerequisite: Grade C or above in History HL1*  
*Length: 2nd year of two-year course*

This course meets both UC/CSU and District graduation requirements for History credit and Government/Economics credit. The course emphasizes political, intellectual, social and economic history. The second year of the course will cover the regional option. The regional option selected will be the History of the Americas. Three topics covered under the first year of study include; 1) Emergence of the Americas in Global Affairs 1880-1929, 2) The Great Depression 1929-1939, and 3) The Cold War and the Americas 1945-1981. In the senior year, students will be required to complete a major research assignment (IA) that is evaluated by both the classroom teachers and the IB organization.

#### **IB ECONOMICS SL**

*Course #: 1711*                      *Grade level: 12*  
*Prerequisite: None*                      *Length: Year*

This course meets UC/CSU elective and District graduation requirements for elective credit. The IB economics course emphasizes the real-world application of economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments and societies. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability. The ethical dimensions permeate throughout the course as students are required to consider and reflect on human end-goals and values. The course encourages students to develop international perspectives, fosters a concern for global issues, and raises students' awareness of their own responsibilities at a local, national and international level. The course also seeks to develop values and attitudes that will enable students to achieve a degree of personal commitment in trying to resolve these issues, appreciating our shared responsibility as citizens of an increasingly interdependent world. In addition to open-ended response assessments, students will produce a portfolio of three commentaries, based on different sections of the syllabus and on published extracts from the news media.

#### **IB PSYCHOLOGY SL/HL1**

*Course # 1891*                      *Grade Level: 11-12*  
*Prerequisite: None*                      *Length: Year*

This course meets UC/CSU elective and District graduation requirements for elective credit. This can be the first year of the two-year sequence. Students will explore how psychology can provide a unique approach to understanding modern society by developing an awareness that human attitudes and beliefs are widely diverse and by appreciating the role culture plays in human behavior. Students will analyze how the biological, cognitive and socio-cultural approaches interact in human behavior. Students will examine a variety of topics that include: brain functioning, genetics, evolutionary psychology, animal research, memory, decision-making and biases, emotion, culture,

group identity, stereotypes, group conflict, research methodology and ethics. Also, this course explores options to investigate through applied psychology (options include: abnormal psychology, developmental psychology, psychology of human relationships and health psychology). Assessments will include projects, essay exams, and replication of an experimental study.

### **IB PSYCHOLOGY HL2**

*Course # 1894*

*Grade Level: 12*

*Pre-requisites: C or better in IB Psychology SL/HL1*

*Length: Second year of a two-year course*

This course meets UC/CSU elective and District graduation requirements for elective credit. Students will continue to explore topics and extensions from the first year. Students will further analyze the role of animal research in understanding human behavior and the role of globalization on human behavior. Students will investigate both quantitative and qualitative research methodologies, understanding the impact of research designs on our understanding of human behavior and generalization to the global community. Students will explore abnormal psychology, focusing on causes and treatments of various disorders. Assessments will include projects, essay exams, and presentations.

### **IB Business Management SL**

*Course #: 7630*

*Grade Level: 11-12*

*Prerequisites: none*

*Length: Year*

This course meets the UC/CSU elective requirement. Business management studies business functions, management processes and decision-making in contemporary contexts of strategic uncertainty. It examines how business decisions are influenced by factors internal and external to an organization, and how these decisions impact upon its stakeholders, both internally and externally. Business management also explores how individuals and groups interact within an organization, how they may be successfully managed and how they can ethically optimize the use of resources in a world with increasing scarcity and concern for sustainability. Emphasis is placed on strategic decision making and the operational business functions of human resource management, finance and accounts, marketing and operations management.

## **GROUP 4**

### **IB PHYSICS SL**

*Course # 3532*

*Grade Level: 11-12*

*Prerequisite: C or better in Chemistry*

*Length: Year*

This course meets UC/CSU and district graduation requirements as a category D physical laboratory science. This course will co-exist within the CP Physics class. Students will continue to explore both theoretical ideas and experimental results, which will allow students to develop traditional practical skills and techniques and increase their abilities in the use of mathematics. In addition to the core concepts, students will investigate how engineering practices utilize different aspects of physics. All students will participate in practical activities, which provide students with the opportunity to design investigations, collect

data, develop manipulative skills, analyze results, collaborate with peers and evaluate and communicate their findings.

### **IB PHYSICS HL2**

*Course # 3536*

*Grade Level:12*

*Prerequisite: C or better in CP, IB SL or AP Physics*

*Length: 1 year (second year of 2)*

This course meets UC/CSU and district graduation requirements as a category D physical laboratory science. Students will continue to explore both theoretical ideas and experimental results, which will allow students to develop traditional practical skills and techniques and increase their abilities in the use of mathematics. In addition to the core concepts explored in the first year of the course, students will investigate the following: wave phenomena, fields, electromagnetic induction, and quantum nuclear physics. The focus on engineering physics will be expanded in the second year. All students will participate in practical activities, which provide students with the opportunity to design investigations, collect data, develop manipulative skills, analyze results, collaborate with peers and evaluate and communicate their findings.

### **IB Biology SL**

*Course # 3032*

*Grade Level: 11-12*

*Prerequisite: Grade B or better in Biology. Concurrent enrollment in OR completion of Chemistry.*

*Length: Year*

IB Biology SL meets UC/CSU laboratory "D" and District graduation requirements for life science. IB Biology SL will incorporate a global and inquiry-based approach to teaching the biological science concepts. Students will examine the nature of biological science and scientific discovery within the scope of the "core" topics of cells, molecular Biology, Genetics, Ecology, Evolution and Human Physiology. The IB Biology laboratory component is thorough and rigorous culminating with an Internal Assessment investigation of the student's own design (and implementation). Finally, the IB Biology SL curriculum requires the in-depth investigation of an "optional" topic; At MVHS our "option" is additional topics within human physiology. The IB Program expects students to take an active and personal role in their learning of biological concepts through critical thought processes and creative problem solving. Students will be expected incorporate knowledge gained through other courses, examining the historical significance of scientific discovery as well as the role of other cultures in science. Math knowledge, in particular, will be integrated into data analysis and explanations of statistical significance of data in conclusions of laboratory activities and projects. The course is designed to prepare students to take the IB Biology SL exam. Some colleges offer credit based on the result of the exam. A minimum of 20% of class time will be devoted to laboratory experiences.

### **IB Biology HL2**

*Course # 3034*

*Grade Level: 12*

*Prerequisite: Completion of IB Biology HL1/AP Biology*

*Length: Second year of a two-year course*

This course meets UC/CSU and District graduation requirements for life science credit ("d"). This class will focus on the IB HL

options of Neurobiology, Behavior, Endocrinology, Digestion/Absorption, Liver function and the cardiovascular system with associated laboratory experiences. The class will also contain “additional higher level” core material designed as an extension to the curriculum presented AP Biology. Laboratory work will be a key feature of the course as students will complete several (research based) open ended investigations to fulfill the internal assessment requirement of the course.

### **IB Sports, Exercise and Health Science SL**

*Course # 2882*

*Grade Level: 11-12*

*Prerequisite: C or better in Chemistry*      *Length: Year*

This course meets the UC/CSU and District graduation requirements for elective credit (“G”). It is an applied science course with aspects of biological and physical science being studied in the specific context of sports, exercise and health. SEHS is a good preparation for courses in further education or employment related to sports fitness and health. The course incorporates the traditional disciplines of anatomy and physiology, biomechanics, psychology and nutrition, which are studied in the context of sports, exercise and health. Students will carry out practical (experimental) investigations in both laboratory and field settings. This will provide an opportunity to acquire the knowledge and understanding necessary to apply scientific principles and critically analyze human performance. Where relevant, the course will address issues of international dimension and ethics by considering sports, exercise and health relative to the individual and in a global context.

### **GROUP 5**

#### **MATH ANALYSIS AND APPROACHES IB SL**

*Course #*

*Grade Level:11-12*

*Length: Year*

*Prerequisite (if applicable): B or better in Advanced Math 3*  
This course meets both UC/CSU and District graduation requirements for Math credit. 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 modelling. 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. Students who choose Mathematics: Analysis and Approaches at SL should be comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalization of these patterns. In addition, students will have strong algebraic skills and the ability to understand simple proof. They will be students who enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems. Five main topics include: number and algebra, functions, geometry and trigonometry, probability and statistics, and calculus.

#### **MATH APPLICATIONS AND INTERPRETATIONS IB SL**

*Course #*

*Grade Level:11-12*

*Prerequisite: B or better in Math 3 or C or better in Adv. Math 3*

*Length: Year*

This course meets both UC/CSU and District graduation requirements for Math credit. 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 modelling. 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. 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. Five main topics include: number and algebra, functions, geometry and trigonometry, probability and statistics, and a brief introduction to calculus.

### **GROUP 6**

#### **IB MUSIC**

*Course # 7010*

*Grade Level: 11-12*

*Prerequisite: Co-enrolled in Wind Ensemble*

*Length: Year*

This course meets UC/CSU and District graduation requirements for Visual and Performing Arts. Students will engage in scholarly research to clarify their understanding of music and music’s place in the world. Research documents will include extensive genre comparisons from both a Western and World perspective. Students will work both individually and collaboratively to extend and enhance their knowledge and ability of music performance and the production of music, demonstrating an understanding of style, performance practice and interpretation, appropriate technical ability, and performer interaction through solo and group performances, and creation. Throughout the course, students will demonstrate an understanding of melodic and harmonic analysis, rhythm reading, transposition, composition, ear training, sight-singing, musical vocabulary, and basic piano skills. Students will further demonstrate the knowledge of the rudiments of music: scales, intervals, extended chords, tonality, modality, key signatures, meter, rhythm, and how each element is employed throughout the various eras and cultures studied including the evolution and interpretation of notational systems.

#### **IB THEORY OF KNOWLEDGE**

*Course # 1892*

*Grade level: 11-12*

*Prerequisite: Enrolled in 2 or more IB classes*

*Length: Two semesters (Spring 11th, Fall 12th)*

This course meets UC/CSU elective and District graduation requirements for elective credit. This course is required for the Full IB Diploma. T.O.K. is a course that examines the origins and validity of various forms of knowledge. The process of the course is a critical reflection on what the student claims to know. The focus of the class is on inquiry. The goals are to gain an understanding of what it means to know something as a scientist, an artist or historian, etc. and how the forms of knowledge relate to one another.