



High School Program of Studies

2019-2020 School Year



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High School Program of Studies

Dear High School Students and Parents,
Welcome to Al Ittihad National Private School – Abu Dhabi (INPS-AD). This 2018-2019 High School Program of Studies designed for students and parents to develop understanding of the courses offered at the INPS-AD in grades 9 through 12. We encourage students to use this as a guide towards understanding the overall INPS-AD High School program.

Vision

“A generation of heritage guardians and global thinkers”

Mission

We at “INPS-AD” are committed to the intellectual and personal development of our students by providing programs that inspire and empower them to become active national and global citizens.

Curriculum

The curriculum at Al Ittihad Private School comprises a required program of studies that prepare students for college entrance. Electives are designed to allow students the flexibility to nurture their abilities and interests. The school academic year consists of two semesters, approximately 16 weeks in each. Graduation requirements are based on the number of successful units of credit earned in grade 9 through grade 12. As students move into Grades 9-12, the INPS-AD offers them courses that will help them stream-line their academic choices to support their university course of study and career options.

Grade Level Placement

The following terms are used for each class:

| | |
|----------|-----------|
| Grade 9 | Freshman |
| Grade 10 | Sophomore |
| Grade 11 | Junior |
| Grade 12 | Senior |

Credit Hours

Credits are the units by which academic progress is measured. A minimum of Twenty- Six credits are required for graduation from INPS- AD. Credit will be given only for courses taken while students are enrolled at ninth through twelfth grade. Below is the comparison between the credit hour in INPS-AD and California State credit hours. The school strongly encourage students to go beyond the minimum requirements of the credits. Accordingly, the following credits have been created by the school.

| Subjects | INPS-AD Credits | California State Credits | Comments |
|--------------------|-----------------|--------------------------|---|
| Islamic | 2 | | Mandatory for Muslim students. <i>These credits replace a combination of credits from the elective courses</i> |
| Arabic | 4 | | Mandatory for Arab Nationals. <i>These credits replace a combination of credits from the world language components.</i> |
| English | 4 | 4 | |
| World Language | -- | 2 | <i>These credits replaced by Arabic Language</i> |
| Mathematics | 4 | 3 | |
| Science | 4 | 3 | |
| Social Science | 3 | 2 | |
| Physical Education | 2 | 2 | |
| Creative Art | 0.5 | 0.5 | |
| Elective Courses | 3.5 | 7.5 | |

The Difference between INPS-AD & California State credits

Course Change

The schedule is created after students' choices and interests. Accordingly, courses change is highly discouraged after course selections. One week change period is applicable to any new classes after starting the academic year. Student-initiated requests for course changes take place within the first week of the scheduled course. Attendance in the students' original class is required until the change has been confirmed by the school administration. Consultation with the student must occur before allowing student to change their schedule. Student is responsible to finish and complete any work missed in their new course.

The teacher may recommend that a student be changed to another course if the student does not meet the minimum course expectations.

Below the steps that need to be followed when requesting a course change after the initial one-week period:

1. Student obtains petition form from counselor for the course change.
2. Parent, current teacher, or receiving teacher recommends the change.
3. Counselor makes a recommendation.
4. A final decision will be made by the Guidance Committee, taking all recommendations into account.

The Guidance Committee consists of the (Director, Deputy Director, Academic Advisor, High School Principals and Guidance Counselor)

Pre-requisites

Pre-requisites are required for some courses. Pre-requisites are listed in course descriptions, and students should be aware of them when making course selections. Students are required to read the description of each course selected in order to avoid changing courses.

Attendance

Regular attendance and punctuality are emphasized at INPS-AD. Because performance in class through collaborative activities is an essential element of student learning and assessment, students must be present and absent must be minimized. To receive course credit, students may not accumulate more than unexcused **6 classes per course per semester**. Students exceeding this absence limit will receive the grade on their final transcript but will not be granted credit. **Four tardiness are equal to one unexcused absence.**

Course Repetition

Students receiving a 'E' or an 'F' grade in a course may be recommended to either repeat the course during the following school year or retake the course during the summer to prepare to take a placement test upon their return to school (subjected to ADEK's approval) in order to be promoted to the next level.

Grade Convention

| Percentage Grade | Letter Grade | GPA | Percentage Grade | Letter Grade | GPA |
|------------------|--------------|-----|------------------|--------------|-----|
| 97-100 | A+ | 4 | 73-76 | C | 2 |
| 93-96 | A | 4 | 70-72 | C- | 1.7 |
| 90-92 | A- | 3.7 | 67-69 | D+ | 1.3 |
| 87-89 | B+ | 3.3 | 65-66 | D | 1 |
| 83-86 | B | 3 | Below 65 | D- | 1 |
| 80-82 | B- | 2.7 | Below 60 | E/F | 0 |
| 77-79 | C+ | 2.3 | | | |

Educational Programs

Some course work is mandatory in Grades 9 - 12, such as Islamic, Arabic, Arabic Social Studies English, Math, Biology (Gr. 9), Chemistry (Gr. 10), History (Gr. 10) Physics (Gr. 11&12), Economics (Grades 11&12) and Art (Gr. 9), other courses are offered on option basis to give our students strong background and foundation in liberal art, medical science, engineering, information technology as well as in business streams. At the end of Grade 8, students need to choose their preferences and commit to these choices for the next 4 academic years (Grades 9-12). A grace period of **one week** is given at the commencement of each academic year for students to adjust choices; however, after that grace period, changing options is not recommended nor supported.

Advanced Placement (AP) Courses

INPS- Khalifa City offers the Advanced Placement (AP) Program sponsored by the College Board in the United States. These AP courses are equivalent to first-year college courses and are intended for students who possess proven ability, interest and motivation to handle the extra workload and study requirements. The decision to take an AP course should not be taken lightly. Students considering AP courses should seek advice from parents, the course teacher and their counselor. Students enrolled in any AP classes are expected to complete the corresponding College Board external exam in May. These exams are scored on a 1-5 scale. Depending on the school, scores of 4 or 5 can result in a college or university awarding credit, exemption from courses or advanced standing. Students should research individual colleges to understand their policies in rewarding AP credit. Please note that there is a fee for each AP exam. By definition, AP courses are very demanding and require extensive homework and self-directed study. Therefore, a strong degree of motivation, organization and time management skills are critical. As a result, when calculating GPA, AP courses are weighted. **Students receive 0.25 additional weight to their GPA.** The following AP courses may be offered for the 2019-2020 school year pending enrollment numbers:

- Calculus AB
- Physics I

Graduation Requirements

- Student must finish 12 years of schooling Grades 1-12
- Student must achieve minimum of 60% overall average in grade 12
- Students must complete 26 credits
- EmSAT
 - EmSAT is compulsory for all Emiratis and non-Emiratis students who are studying in governmental or private schools.
 - The EmSAT is compulsory for university admission in government and private universities and colleges in the UAE
 - The EmSAT is a one of the degree equivalency requirements for American Private School students.
 - EmSAT minimum score for Math is 500 and for English is 1100

- SAT
 - SAT is a one of the degree equivalency requirements for American Private School students (minimum score of 400 for Mathematics)
- IELTS/TOEFL
 - IELTS or TOEFL is a one of the degree equivalency requirements for American Private School students. TOEFL minimum score of “61” Internet based and IELTS minimum score of “5”.
- Community Service/ Internship a minimum of 30 hours

Scholarship Requirements by the UAE Government

- UAE National
- An average of 85% or more
- IELTS minimum score of 5.5
- EmSAT minimum score for Mathematics 1100
- EmSAT minimum score for English 1250

Standardized and International Exams

All high school students (those studying in grades 9, 10, 11 and 12) **must** take recognized standardized/Aptitude tests as appropriate to their needs and grade level. Choices must also be linked to university and national equivalency requirement.

Below is a list of all the tests associated with the US curriculum expectation (not all are compulsory)

| Acronym | Description | Grade Level | Note |
|----------------------------------|---|-------------|------------|
| PSAT | Preliminary Scholastic Assessment Test | 9 /10 | Compulsory |
| PASS | Pupil Attitudes to Self and School | 7&10 | Compulsory |
| CAT4 | Cognitive Abilities Test | 3 - 9 | Optional |
| YoungBuzz Career Assessment Test | Aptitude, Interest & Personality Tests | 10 | Compulsory |
| SAT I | Scholastic Assessment Test | 11/12 | Compulsory |
| Advance Placement (AP) | Subject Test – University Level | 12 | Optional |
| IELTS/TOEFL | International English Language Testing System | 11 | Compulsory |
| EmSAT- MOE | English, Math, Physics & Arabic | 12 | Compulsory |

Courses Offered – 2019/2020

| Credit Required | Core Subject | Grade 9 | Grade 10 | Grade 11 | Grade 12 |
|---------------------------------------|---|---|--|--|--|
| 4 | English Language Art | ELA 1 credit | ELA 1 credit | ELA 1 credit | ELA 1 credit |
| 4 | Mathematics | Math 9 1 credit | Math 10 1 credit | Math 11 General / Math 11 Advanced (Precalculus) 1 credit | Math 12 General/ Math 12 Advanced (Calculus) / AP Calculus 1 credit |
| 3 | Social Science | Social Studies 0.5 credit | Modern History 1 credit | Economics 1 credit | Economics II 0.5 credit |
| 4 | Science | Biology 1 credit | Fundamental Chemistry 1 credit | Physics I / Advanced Physics I 1 credit | Physics II/ Advanced Physics II / AP Physics 1 Credit |
| 4 | Foreign Language- Arabic Language Art | ALA 1 credit | ALA 1 credit | ALA 1 credit | ALA 1 credit |
| 2 | Islamic Studies | Islamic St. 0.5 credit | Islamic St. 0.5 credit | Islamic St. 0.5 credit | Islamic St. 0.5 credit |
| 0.5 | Visual & Performing Art | Art 0.5 credit | | | |
| 2 | Physical Education & Health | Physical Education & Health 0.5 credit | Physical Education & Health 0.5 credit | Physical Education & Health 0.5 credit | Physical Education & Health 0.5 credit |
| Total Core Subject Credits | | 6 | 6 | 6 | 5.5 |
| Electives | | 0.5 Credit | 1 Credit | 1Credit | 1 Credit |
| | | (0.5 cr.) Introduction to Programming through Video Game Design and Building iOS Apps / English Writer's Lab | 0.5 cr. App Development/ Principles of Business 0.5 cr. Public Speaking / Art (1 cr.) Human Anatomy | (0.5 cr.) Engineering Design / Accounting I Creative writing /Business II /Art (1 cr.) Adv. Chemistry I | (0.5 cr.) Genetics / Modern History II (0.5 cr.) Advanced Chemistry II /Accounting II Journalism* |

Moral Education grade 9-12 = 0 credit

*Journalism will be offered in 2020-2021

Courses Description

English Department

Title: English 9

Length & Credit: 1 year / 1.0 Credit

Grade: 9

Prerequisite: None

English 9 broadens the students' literary experiences by introducing them to several classics and establishes a foundation for the advanced study of various genres. Units will include short stories, poetry, fiction, and non-fiction. In addition to reading and analyzing texts, the course emphasizes the development of writing, research, speaking, listening, viewing, grammar, and vocabulary skills. Independent reading is required in addition to the regular course work.

Title: English 10

Length & Credit: 1 year / 1.0 Credit

Grade: 10

Prerequisite: Completion of English 9

This course is intended to expose students to a variety of literature genres within the realm of American Literature. Students continue with building an extensive vocabulary base, through structured compositions, and grammar skills. In addition to reading and analyzing texts, the course emphasizes the development of writing, research, speaking, listening, viewing, grammar, and vocabulary skills.

Title: English 11

Length & Credit: 1 year / 1.0 Credit

Grade: 11

Prerequisite: Completion of English 10

As students enter a pivotal year for SAT and IELTS testing, this course focuses on the study of American literature revolving around current topics relevant to social, cultural, and political forces both regionally and globally. Topics of study may include education, political movements, ideological and cultural conflicts, and humans' relationship with nature. The texts will include a wide range of fiction and nonfiction in a variety of genres and media. In addition to the development of critical reading and analysis of texts, the course emphasizes writing, research, speaking, listening, viewing and developing grammar and vocabulary. There is also a major focus placed on the use of literary and rhetorical strategies in both writing and speaking.

Title: English 12

Length & Credit: 1 year / 1.0 Credit

Grade: 12

Prerequisite: Completion of English 11

This course devoted to the study of literature from the standpoint of the development of the English language. Students will study fiction and non-fiction texts and media from a wide range of eras, genres and global regions in order to acquire an understanding of language as a purposeful, communicative medium. There is a major focus on the use of literary and rhetorical strategies in both written and spoken expression. In addition to the critical reading and analysis of texts, the course emphasizes writing, speaking, researching, listening, viewing and developing grammar and vocabulary.

Title: Writer's Lab

Length & Credit: 1 year / 0.5 Credit

Grade: 9

Prerequisite: Recommendation from the current English Teacher

Writer's Lab is an elective course focuses on improving students' writing skills. Students will have the opportunity to explore different styles of writing to identify the key traits of effective writing. Students will practice writing for a variety of purposes and audiences to develop a strong authentic voice. Writing activities give students practice in organizing and developing narrative, cause and effect, and compare and contrast compositions, literary reviews and research papers. Mastery of the writing process is expected. In addition, students study short stories, novels and poetry. Any student may select to take this course. Alternatively, students may be recommended for the course by a middle school teacher.

Title: Public Speaking

Length & Credit: 1 year / 0.5 Credit

Grade: 10

Prerequisite: None

In order for students to be effective speakers, communication, verbal, nonverbal, and written must be consistent. Master of the skills used in public speaking will greatly enhance the chances of being understood. An effective presentation includes good content, organization, delivery, audience, and analysis. These are the tools that will be evaluated on during the course. In addition, the information students will learn will assist then in becoming a more critical consumer of information.

Title: Creative Writing

Length & Credit: 1 year / 0.5 Credit

Grade: 11

Prerequisite: A 92 and above average in English

Creative Writing is designed to help students in (1) their creative written expression and (2) finding their own voice and style of writing. In order to work on these two skills, students will first read and analyze a variety of texts and genres; then, they will create their own writing pieces while establishing their own personal voice and style. Genres to be explored through both reading and writing include: poetry, fiction, drama, non-fiction, essay, biography, screenplay, and letters. A lot of emphasis will be on reading and reflecting as well as on writing. Peer review, collaboration, and deep engagement in the writing process is a key component of the course.

Math Department

Title: Math 9

Length & Credit: 1 year / 1.0 Credit

Grade: 9

Prerequisite: None

The fundamental purpose of the Mathematics I course is to formalize and extend the mathematics that students learned in the Middle School. This course includes standards from the conceptual categories of Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability.

Title: Math 10

Length & Credit: 1 year / 1.0 Credit

Grade: 10

Prerequisite: Completion of Math 9

The focus of the Mathematics II course is on quadratic expressions, equations, and functions; comparing their characteristics and behavior to those of linear and exponential relationships from Mathematics I.

Title: Math -11 General

Length & Credit: 1 year / 1.0 Credit

Grade: 11

Prerequisite: Completion of Math 10

In Mathematics III - 11 General course students integrate and apply the mathematics they have learned from their earlier courses. This course includes standards from the conceptual categories of Number and Quantity, Algebra, Functions and Geometry. Some standards are repeated in multiple higher mathematics courses Standards that were limited in Mathematics I and Mathematics II no longer have those restrictions in Mathematics III.

Title: Math 11 Advanced (Pre-calculus)

Length & Credit: 1 year / 1.0 Credit

Grade: 11

Prerequisite: Completion of Math 10 and recommendations from the Math teacher

Pre-calculus course is designed to cover topics in Algebra ranging from polynomial, rational, and exponential functions to conic sections. Trigonometry concepts such as Law of Sines and Cosines will be introduced. Students will then begin analytic geometry and calculus concepts such as limits, derivatives, and integrals.

Title: Math 12 - General

Length & Credit: 1 year / 1.0 Credit

Grade: 12

Prerequisite: Completion of 11 General

In Mathematics III -12 General course students integrate and apply the mathematics they have learned from their earlier courses. This course includes standards from the conceptual categories of Functions, Geometry and Statistics and Probability.

Title: Math 12 Advanced (Calculus)

Length & Credit: 1 year / 1.0 Credit

Grade: 12

Prerequisite: Completion of Math 11 Advanced (Pre-calculus) and recommendations from the current Math teacher

Calculus is presented with the same level of depth as an entry-level college and university calculus courses. It includes limits, differentiation, and integration.

Title: AP Calculus (AB)

Length & Credit: 1 year / 1.0 Credit

Grade: 12

Prerequisite: Completion of Math 11 Advanced (Pre-calculus) and recommendations from the current Math teacher

AP Calculus AB is structured around three big ideas: limits, derivatives, and integrals and the Fundamental Theorem of Calculus. In this course the concept of limits is foundational; the understanding of this fundamental tool leads to the development of more advanced tools and concepts that prepare students to grasp the Fundamental Theorem of Calculus, a central idea of AP Calculus.

Science Department

Title: Biology

Length & Credit: 1 year / 1.0 Credit

Grade: 9

Prerequisite: None

Biology means the study of life. In this course students will study the systems that affect living things on the earth. This includes studying scientific processes, matter and energy in organisms and ecosystems, interdependent relationships in ecosystems, biological diversity, ecology, cell structure and function, plant structure and function, plant response and an introduction to body systems.

Students will develop understanding of key concepts that help them make sense of life science. The ideas are building upon students' science understanding of disciplinary core ideas, science and engineering practices, and crosscutting concepts from earlier grades.

Title: Fundamental Chemistry

Length & Credit: 1 year / 1.0 Credit

Grade: 10

Prerequisite: None

This course is a foundational chemistry course that introduces students to basic concepts in state of matter, physical and chemical changes, SI measurements with their conversions, along with density. Not only the classification of matter that includes the concept of atoms, molecules, compounds and mixtures, but also energy. In addition, to tour and trends of the periodic table, students are exposed to ionic and covalent compounds in details. Students are also challenged to calculate the mole and chemical compositions of compounds and to study phase equilibrium and intermolecular forces of molecules. Students will explore these topics using the Next Generation Science Standards which include Cross-cutting Science Concepts, Science and Engineering Practices as well as chemistry Content Standards. Students engage by inquiry using the Science Practices to build, deepen, and apply their knowledge of core ideas and crosscutting concepts. Significant instructional time will be devoted to hands-on work and investigations leading to project based assessments. This course is designed to prepare students for future science related courses Chemistry I.

Title: Human Anatomy

Length & Credit: 1 year / 1 Credit

Grade: 10

Prerequisite: Completion of Biology 9

In this course students will investigate the structure and function of the human body. Topics covered will include the basic organization of the body, the major body systems along with the impact of diseases on certain systems. Students will engage in many topics and competencies related to truly understanding the structure and function of the human body.

Demonstrations, lab activities, videos and dissections will be used to supplement classroom lecture and discussion. This course is designed for those students who have taken biology and who wish to further their study of biology.

Title: Advanced Physics (I)

Length & Credit: 1 year / 1.0 Credit

Grade: 11

Prerequisite: This course requires an average of “B” and above in Math 10 and a recommendation from the Science and Math teachers.

This advanced physics course will introduce students to basic concepts in mechanics, force and energy, thermodynamics, waves, and optics. Students will explore these topics using the Next Generation Science Standards which include Cross-cutting Science Concepts, Science and Engineering Practices as well as Physics Content Standards. Students engage by inquiry using the Science Practices to build, deepen, and apply their knowledge of core ideas and crosscutting concepts. Students will be challenged to apply their knowledge of the laws of physics to solve physics related critical thinking problems. Significant instructional time will be devoted to hands-on work and investigations leading to project based assessments.

Students who take the Advanced Physics must take Advanced Math. Students who pursue scientific and engineering stream in university must take Advanced Physics .

Title: Physics (I)

Length & Credit: 1 year / 1.0 Credit

Grade: 11

Prerequisite: None

This foundational physics course will introduce students to basic concepts in measurement, motion, Newton's laws of motion, momentum, energy, work, power, heat, thermodynamics, and waves. Students should be able to demonstrate an understanding of the physical environment and be able to apply the scientific principles to observations experienced.

Students will explore these topics using the Next Generation Science Standards which include Cross-cutting Science Concepts, Science and Engineering Practices as well as Physics Content Standards. Students engage by inquiry using the Science Practices to build, deepen, and apply their knowledge of core ideas and crosscutting concepts. Significant instructional time will be devoted to hands-on work and investigations leading to project based assessments.

Title: Advanced Chemistry I

Length & Credit: 1 year / 1 Credit

Grade: 11

Prerequisite: This course requires an average of “B” and above in “Fundamental Chemistry” and a recommendation from the Science teacher.

The purpose of this course is to introduce students to chemical equations and reactions including: describing, balancing, classifying, and writing net ionic equations. The important components of the course include using technology, designing projects, making research, mastering presentations, solving critical thinking questions, and performing laboratory experiments. In this course students are exposed to five major branches of chemistry which are stoichiometry, thermodynamics, Gases and the kinetic molecular Theory, solutions and their colligative properties, and organic chemistry. Students will explore these topics using the Next Generation Science Standards which include Cross-cutting Science Concepts, Science and Engineering Practices as well as chemistry Content Standards. This course is suited for students interested in a two-year commitment to a chemistry course in preparation for any science-related major.

Title: Physics (II)

Length & Credit: 1 year / 1 Credit

Grade: 12

Prerequisite: Completion of Physics I

Students will develop an understanding of physics principles and the ability to reason about physical phenomena using important science process skills such as explaining causal relationships, applying and justifying the use of mathematical routines, and analyzing data. Problem solving, communication and reasoning skills, active participation, and critical thinking are emphasized in this course. Topics included are: Electric Forces and Electric Fields, Electrical Potential Energy and Potential Difference, Electrical current and resistance, Electrical Circuits, Magnetism, and Atomic Physics.

Title: Advanced Physics (II)

Length & Credit: 1 year / 1 Credit

Grade: 12

Prerequisite: Completion of Advanced Physics I

This course will differ from standard physics in the length, depth, and/or complexity per topic. It prepares students who pursue degrees in engineering, science or some pre-med fields. Students will develop a deep understanding of physics principles and the ability to reason about physical phenomena using important science process skills such as explaining causal relationships, applying and justifying the use of mathematical routines, and analyzing data. Problem solving, communication and reasoning skills, active participation, and critical thinking are emphasized in

this course. Topics included are: Heat, Temperature & Thermodynamics, Waves & Sound Optics Electrostatics Circuits Magnetism Nuclear & Atomic Physics.

AP Physics I

Length & Credit: 1 year / 1 Credit

Grade: 12

Prerequisite: Completion of Advanced Physics I and teacher recommendation

AP Physics (I) is an introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore these topics: kinematics; dynamics; circular motion and gravitation; energy; momentum; simple harmonic motion; torque and rotational motion; electric charge and electric force; DC circuits; and mechanical waves and sound.

Title: Genetics

Length & Credit: 1 year / 0.5 credit

Grade: 12

Prerequisite: Three science credits

This course focuses on Genetics which is an upper level life science elective. It includes Mendelian genetics, gene structure and function, inheritance patterns, genetic abnormalities, biotechnology, and the Human Genome Project. Students will explore these topics using the Next Generation Science Standards which include Cross-cutting Science Concepts, Science and Engineering Practices as well as Biology Content Standards. Students engage by inquiry using the Science Practices to build, deepen, and apply their knowledge of core ideas and crosscutting concepts. Recommended prerequisite science courses for this Genetics course are Biology, Human Anatomy, and Chemistry cores.

Title: Advanced Chemistry (II)

Length & Credit: 1 year / 0.5 Credit

Grade: 12

Prerequisite: This course requires an average of “B” and above in “Advanced Chemistry I” and a recommendation from the Science teacher.

This is an Advanced Chemistry course that provides the opportunity to apply chemical principles related to everyday life and industry. When studying chemical equilibrium, acids and bases, reactions rates, electrochemistry, and nuclear energy, students get opportunities to investigate the usefulness of the reactions. The corresponding calculations provide the tools to investigate and support the students’ responses. These units focus on problem-solving and decision-making.

One way to introduce this unit is to begin with a contextualized problem requiring students to learn the chemistry to solve the problem and make decisions. Many chapters in this course integrate the societal, pharmaceutical or industrial importance of specific compounds. An important aspect of any chemistry class is laboratory experience. Students will participate in micro-scale labs in which they will safely perform a variety of experiments. Lab results will be recorded in students' lab notebooks, and formal lab reports will be completed.

Title: Environmental Science

Length & Credit: 1 year / 0.5 Credit

Grade: 11, 12

Prerequisite: Two science credits

This course will provide students with the scientific principles and concepts required to understand the interrelationships of the natural world, to identify and analyze environmental problems, to evaluate the risks associated with these problems, and to investigate alternative solutions for resolving or preventing them. Students develop an understanding of how scientific methods are used to construct ecological knowledge. The following topics are included in this course: Earth systems and resources; Ecology; Populations; Land and water use; Energy resources and consumption; Pollution, local and global climate issues.

Social Studies Department

Title: MOE Social Studies

Length & Credit: 1 year / 0.5 Credit

Grade: 9

Prerequisite: None

الإمارات : اقتصادًا معرفيًا ومناورة ثقافية ... يتناول الموضوع حول تعريف الاقتصاد المعرفي من حيث مفهومه وركائزه وسماته ويتناول أبرز الجوانب والخصائص التي تميز الاقتصاد المعرفي عن الاقتصاد التقليدي القديم وما حظيت عملية تحوّل الاقتصاد الإماراتي من الاقتصاد التقليدي إلى الاقتصاد القائم على المعرفة بأولوية رئيسية لدى قيادتنا الرشيدة وفق رؤية 2021م وأدركت دولة الإمارات العربية المتحدة أن مصير الأمم مرهون بإبداع أفراد مجتمعاتها ، إضافة إلى ما تسعى عليه دولة الإمارات إلى إرساء ركائز الاقتصاد المعرفي والصناعة المعرفية تمهيدًا للتحوّل من الاقتصاد الريعي والذي هو الاعتماد على مصدر واحد للدخل وإتباع مسار التنوع الاقتصادي ، الأمر الذي انعكس على تزايد اهتمام حكومات دول مجلس التعاون الخليجي العربي خلال السنوات الأخيرة بتنويع اقتصادياتها من أجل تحقيق التنمية الاقتصادية والاجتماعية المنشودة

Title: Modern History

Length & Credit: 1 year / 1 Credit

Grade: 10 Compulsory

Prerequisite: None

Studying the Modern History course enables students to become critical thinkers and helps inform their judgements and actions in a rapidly changing world. Students are exposed to a variety of historical sources in order to determine the cause and effect, and the motives and forces influencing people and events during the major world wars. Through the process of historical inquiry, students are encouraged to question and evaluate historical events; identify various representations and versions of history; use evidence to formulate and support their own interpretations; and communicate their findings in a variety of ways.

Title: Modern History II

Length & Credit: 1 year / 0.5 Credit

Grade: 12 Elective

Prerequisite: None

Studying the Modern History course enables students to become critical thinkers and helps inform their judgements and actions in a rapidly changing world. Students are exposed to a variety of historical sources in order to determine the cause and effect, and the motives and forces influencing people and events during the major revolutions across history. They are also exposed to different cultures, government systems, and the major historical empires. Through the process of historical inquiry, students are encouraged to question and evaluate historical events; identify various representations and versions of history; use evidence to formulate and support their own interpretations; and communicate their findings in a variety of ways.

Title: Economics

Length & Credit: 1 year / 1 Credit

Grade: 11

Prerequisite: None

Economics: Concepts and Choices uses a concept-driven and interactive approach to develop economic literacy. It uses real-world examples, frequent concept application, and continuous updating to ensure that students and teachers stay abreast of the very latest economics news and information. A variety of print and technology resources are integrated into this comprehensive program providing teachers and students with the tools needed for success, from easy-to-use teaching tools to assessment tools that inform instruction.

Economics takes a unique approach to the material. For every concept within the narrative, Economics follows a consistent Concept-Example-Application approach, offering students a chance to make sure they fully understand the material before moving on. Because economics builds on itself, almost like math or a world language, this helps keep students on pace. Students are introduced to the basics of economic principles, and learn how to think like economists. They explore different economic systems, including the American free enterprise system, analyze and interpret data, and consider economic applications in today's world. From economics in the world of business, money, banking, and finance, students see how economics is applied both domestically and globally. The main focus will be on:

Scarcity: The Basic Economic Problem, Economic Systems, Demand, Supply, Market Structures and Types of Business Organizations

Title: Economics (II)

Length & Credit: 1 year / 1 Credit

Grade: 12

Prerequisite: Completion of Economics

In Advance Economics course the main focus will be on:

- The Role of Labor
- Money & Banking
- Financial Markets
- Economic Indicators and Measurements
- Facing Economic Challenges
- International Trade

Information Technology Department

Title: Introduction to Programming through Video Game Design and building iOS Apps

Length & Credit: 1 year / 0.5 Credit

Grade: 9

Prerequisite: None

Introduction to Programming through Video Game Design is recommended for anyone considering studying engineering or computer science in college. Through the designing of video games, students will be introduced to the fundamentals of computer programming. In programming the games, students will cover core-programming topics such as classes, objects, methods, variables, decision statements and control structures. Students will design and program their own animated, interactive game as the final programming project. The manipulation of graphical and sound files will be included. This course, Mobile App Development or Robotics are a prerequisite for students interested in the computer science Python programming course entitled Computer Programming I.

Title: Engineering Design

Length & Credit: 1 year / 0.5 Credit

Grade: 11

Prerequisite: None

Students will study Design Engineering, which includes Robotics (Level 2) and Arduino module. Robotics is a project-based curriculum that is motivating and engaging for many students. It draws on, and develops, learning related to the disciplines of science, technology, engineering and mathematics (STEM). At this stage, students will explore the processes of design and programming, and develop solutions of real-life problems, using EV3 LEGO robots. Arduino curriculum is a project-based course, where students explore aspects of electronics, circuitry, programming and processes of design. Students learn about these aspects through researching, designing circuitry, and utilizing and programming electronics using Arduino module and LittleBits. Students will apply what they learn by designing a final product.

Title: Video Production

Length & Credit: 1 year / 0.5 Credit

Grade: 12

Prerequisite: None

The focus of Video Production is for students to develop the skills and techniques required for editing and producing different types of multimedia video projects. Students learn how to use the video editing programs, Adobe After Effects. Adobe After Effects is a digital visual effect, motion graphics, and compositing application used in the post-production process of filmmaking and television production. Student projects focus on producing short films, which could include product commercials and advertisements, public service announcements, or highlights of events such as news and sports, movie trailers, or summary of upcoming programs.

Title: App Development with Swift Course

Length & Credit: 1 year / 0.5 Credit

Grade: 10

Prerequisite: None

This course is designed to teach students the skills needed to be an app developer capable of bringing their own ideas to life. By the end of this course they should be able to build a fully functioning app of their own design.

The course starts by introducing iOS development tools, basic programming concepts using Swift as the language, and industry best practices. Building on this foundation, we will follow a step-by-step curriculum, work through practical exercises, and create apps from scratch.

Students will build five projects, beginning with a simple flashlight app that changes the background color of the screen and ending with a shopping app that works with network services to communicate with a web server. After they finish the course projects, they will have a chance to build their own personal project, working through design, prototyping, and development phases.

Title: Graphic Design

Length & Credit: 1 year / 0.5 Credit

Grade: 9,10,11,12

Prerequisite: None

Students will study Graphics Design using Adobe Photoshop, Illustrator and InDesign. Graphics Design, also known as communication design, is the art and practice of planning and projecting ideas and experiences with visual and textual content. The form of the communication can be physical or virtual, and may include images, words, or graphic forms.

Visual and Performing Arts Department

Title: Visual Arts & Design

Length & Credit: 1 year / 0.5 Credit

Grade: **9**

Prerequisite: None

This course is consecrated to the Elements of Art and Principles of Design and the ways they can be applied within individual media forms and it will cover fundamental principles of visual design also including composition, typography, style, tools, materials, and the organization of visual information. As a course in design process, there will be an emphasis on different methods for working, including concept development through process and repetition.

Title: Visual Arts Communication

Length & Credit: 1 year / 0.5 Credit

Grade: **11**

Prerequisite: Completion of Visual Arts & Design

Visual Arts Communication is a course that develops a student's ability to conceptualize artwork that communicates to an audience. It offers a focused investigation into a single topic using conceptual practice. Topics can focus simply on one specific technique or material, or can allow for hybrid practices, context-driven strategies, and take on larger themes. This course will allow students to use research based studio work to explore their respective areas in more focus and depth. Students also are required to take the basic knowledge of Art History. Although structure and technique are addressed in studio course, greater emphasis is placed on the interpretive style of each individual and the development of a professional portfolio.

Title: Drama

Length & Credit: 1 year / 0.5 Credit

Grade: **12**

Prerequisite: None

This course emphasizes the active exploration of dramatic forms and techniques, using materials from a wide range of authors, genres, and cultures. Students will construct, discuss, perform, and analyze drama. They will often reflect on the experiences to help develop an understanding of themselves, the art form, and the world around them. In drama, most learning is experiential and group-oriented.

Title: Core Media 3D Art

Length & Credit: 1 year/ 0.5 Credits

Grade Level(s): Grade 10

Prerequisite: None

In this introductory course, students will explore artistic expression through a wide range of visual 3D media. Through a series of exercises, students will explore the possibilities of expression that arise when a variety of media and supportive surfaces are combined.

In the 3D Design art class, the curriculum is based on a theme. This theme allows students to make connections between art, academics and their personal world.

Title: Studio Art 3D Design

Length & Credit: 1 year/ 0.5 Credits

Grade Level(s): Grade 11/12

Pre-Requisite: Completion of Core Media 3D Art

As a 3D Design class students will be learning about, and creating sculptural art works in the use of elements and principles in 3D design.

Students will utilize drawing, individual and group inquiry and discussion, media experimentation and application in the planning, construction and self-evaluation stages of their sculptures.

Students will maintain an extensive sketchbook/ journal and take part in group and individual critiques.

World Language Department -Arabic

Title: Arabic 9

Length & Credit: 1 year / 1.0 Credit

Grade: 9

Prerequisite: None

وُضع منهج التاسع للطالب ليستفيد منه ، ويستمتع بقراءته ويشتمل على مهارات القراءة ، الاستماع ، المحادثة ، الكتابة ، النحو ، البلاغة .
أما نصوص القراءة فقد تنوعت ما بين القرآن الكريم والحديث الشريف ، والنصوص الأدبية ، ونصوص الرأي ، والنصوص المعلوماتية .
إن الأفكار والأسئلة الواردة في المنهج هي للطالب، فهي ليست مفصولة عن عالم الأدب؛ فالأدب يناقش قضايا الإنسان الكبرى، فعلى الطالب أن يكون قارئاً ماهراً يقرأ السطور وما بين السطور، ويحث الكتاب الطالب على أن يخصص جزءاً من وقته للكتاب والمطالعة لأهميتها.

Title: Arabic 10

Length & Credit: 1 year / 1.0 Credit

Grade: 10

Prerequisite: Completion of Arabic 9

يهدف المنهج إلى تطوير مهارات الطالب اللغوية، من خلال التفاعل الواعي مع مضامين النصوص وأفكارها، وركز على ستة محاور هي: القراءة، الاستماع، المحادثة، الكتابة، النحو والبلاغة. وقسمت نصوص القراءة إلى أقسام: القرآن الكريم، الحديث الشريف، النصوص الأدبية، ونصوص الرأي، والنصوص المعلوماتية.
وقد ركز المنهج على جعل الطالب شريكاً فاعلاً في عملية التعليم والتعلم، وقدم المنهج روافد للطالب " نصوص رديفة " في كتاب النصوص؛ لتكون رافداً مهماً لمن أراد أن يبدأ رحلة القراءة والتثقيف والمعرفة.

Title: Arabic 11

Length & Credit: 1 year / 1.0 Credit

Grade: 11

Prerequisite: Completion of Arabic 10

اعتمد المنهج في بنائه على مدخل الوحدات، حيث تضمنت كل وحدة موضوعات متنوعة، تمثل مجالات ومحاور المنهج بصورة متكاملة من الوحي الإلهي والعقيدة وقيم الإسلام وأدابه وأحكامه والسيرة النبوية و الشخصيات والهوية و القضايا المعاصر

وحرص المنهج على ترجمة معايير المنهج إلى محتويات شاملة، وحدد نواتج التعلم في بداية كل درس، وألحق ذلك بأنشطة الطالب التي ركزت على ثلاثة أنواع من المحاور، وهي الأنشطة العامة لجميع الطلاب، والأنشطة الإثرائية والأنشطة التطبيقية

Title: Arabic 12

Length & Credit: 1 year / 1.0 Credit

Grade: 12

Prerequisite: Completion of Arabic 11

اعتمد المنهج في بنائه على مدخل الوحدات، حيث تضمنت كل وحدة موضوعات متنوعة، تمثل مجالات ومحاور المنهج بصورة متكاملة من الوحي الإلهي والعقيدة، وقيم الإسلام وآدابه وأحكامه، والسيرة النبوية والشخصيات والهوية الوطنية والقضايا المعاصرة. كما استهدف تحقيق سمات الطالب الإماراتي، وتعزيز ولائه، وانتمائه إلى وطنه، وتحصينه من أفكار التطرف والإرهاب، وحرص كذلك على تنمية مهارات القرن الحادي والعشرين، ومهارات التفكير الإبداعي، والابتكاري، وحل المشكلات، وصقل قدرات الطلاب وتوعيتهم باستثمار الإمكانيات المادية والبشرية، والمحافظة على ثروات الوطن، مع التركيز على المعارف والمفاهيم الدينية التي يحتاج إليها الطلاب، مع ربطها بحياتهم المعاصرة وفق تعاليم الإسلام

Islamic Studies Department

Title: Islamic 9

Length & Credit: 1 year / 0.5 Credit

Grade: 9

Prerequisite: None

استهدف المنهاج تحقيق سمات الطالب الإماراتي ، وتعزيز ولائه لوطنه بالاعتدال والتوسط والتسامح ، واهتم بتنمية المهارات الأدائية الخاصة بالتربية الإسلامية ، واعتنى بالقيم الإسلامية لبناء شخصيات واعية ، تتمسك بدينها ، وتعزز بثرائها ، وتسهم في بناء وطنها

Title: Islamic 10

Length & Credit: 1 year / 0.5 Credit

Grade: 10

Prerequisite: Completion of Islamic 9

قد وازن المنهاج بين المعرفة الدينية والأنشطة التعليمية ، حيث قدم المعارف والمفاهيم الدينية اللازمة للطلاب، وفتح لهم مجال الاستزادة والإثراء عبر الأنشطة التعليمية الصفية في الوقت نفسه .
وهدف إلى تحقيق سمات الطالب الإماراتي وتعزيز ولائه وانتمائه إلى وطنه ، وتحصينه من أفكار التطرف والإرهاب ، وتنمية مهارات القرن الواحد والعشرين ، ومهارات التفكير ، وتحقيق متطلبات التنمية المستدامة .

Title: Islamic 11

Length & Credit: 1 year / 0.5 Credit

Grade: 11

Prerequisite: Completion of Islamic 10

ركز المنهاج على المعارف و المفاهيم الدينية التي يحتاج إليها الطالب مع ربطها بحياتهم المعاصرة وفق تعاليم الإسلام المتسمة بالاعتدال و التوسط و التسامح ، كما اهتم بتنمية المهارات الأدائية الخاصة بالتربية الإسلامية ، واعتنى بالقيم الإسلامية لبناء شخصيات واعية تتمسك بدينها ، و تعزز بثرائه

Title: Islamic 12

Length & Credit: 1 year / 0.5 Credit

Grade: 12

Prerequisite: Completion of Islamic 11

اعتمد المنهاج في بنائه على مدخل الوحدات ، حيث تضمنت كل وحدة موضوعات متنوعة ، تمثل مجالات و محاور المنهج بصورة متكاملة من الوحي الإلهي و العقيدة ، و قيم الإسلام و آدابه و أحكامه ، و السيرة النبوية و الشخصيات و الهوية الوطنية و القضايا المعاصرة .
كما استهدف تحقيق سمات الطالب الإماراتي ، و تعزيز ولائه ، و انتمائه إلى وطنه ، و تحصينه من أفكار التطرف و الإرهاب ، و حرص كذلك على تنمية مهارات القرن الحادي و العشرين ، و مهارات التفكير

الإبداعي ، و الابتكاري ، و حل المشكلات ، وصقل قدرات الطلاب و توعيتهم باستثمار الإمكانيات المادية و البشرية ، و المحافظة على ثروات الوطن ، مع التركيز على المعارف و المفاهيم الدينية التي يحتاج إليها الطلاب ، مع ربطها بحياتهم المعاصرة وفق تعاليم الإسلام

Physical Education & Health Science

Title: Physical Education 9

Length & Credit: 1 year / 0.5 Credit

Grade: 9 -12

Prerequisite: Completion of PE 9.10. 11

The learner will demonstrate competency in two or more lifetime activities; describe key concepts associated with successful participation in physical activity; model responsible behavior while engaged in physical activity; and engage in physical activities that meet the need for self-expression, challenge, social interaction and enjoyment.

Students will acquire a broad range of fundamental skills and knowledge, related to movement and sport. Students will experience a variety of physical education activities. Skill development and game-play strategies related to activities such as volleyball, basketball, soccer, badminton, softball, track and field will be included.

Title: Health & Nutrition

Length & Credit: 1 year / 0.5 Credit

Grade: 9,10,11,12

Prerequisite: None

Nutrition and Health education is a continuum of learning experiences that enables students, as individuals and as members of society, to make informed decisions, modify behaviors, change social conditions in ways that are health enhancing and increase health literacy. Four characteristics are identified as essential to health literacy. Health-literate individuals are:

- Critical thinkers and problem solvers when confronting health problems and issues
- Self-directed learners who have the competence to use basic health information and services in health-enhancing ways
- Effective communicators who organize and convey beliefs, ideas, and information about health issues
- Responsible and productive citizens who help ensure that their community is kept healthy, safe, and secure.

Business Studies Department

Title: Accounting I

Length & Credit: 1 year / 0.5 Credit

Grade: **11**

Prerequisite: None

The prime objective of this course is to introduce students to the double-entry system of accounting for sole proprietorship, corporate, and partnership forms of business enterprises by using real-world applications and connections. It includes analyzing business transactions, journalizing, posting, and preparing worksheets and financial statements. Other important objectives include the following:

- To help students develop personal and professional skills for school and work.
- To help students understand the relationship between the manual system of accounting and a computerized system.
- To help students find success in accounting.

Title: Principals of Business

Length & Credit: 1 year / 0.5 Credit

Grade: 10

Prerequisite: None

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. Understanding Business introduces the world of business through a survey of fundamental concepts and challenges – managing change, economics, ethics and social responsibility, management and leadership, marketing, human resources, entrepreneurship, accounting and finance, global trade, information technology, and operations and supply chain. This course is designed to give students a working knowledge of business, as well as assist them in determining an area or two of business in which they would like to concentrate throughout their studies.

Title: Accounting II

Length & Credit: 1 year / 0.5 Credit

Grade: **12**

Prerequisite: Completion of Accounting

This course is an introduction to the basic concepts and standards underlying financial accounting systems. Several important concepts will be studied in detail, including: revenue recognition, inventory, long-lived assets, present value, and long term liabilities.

Accounting is the language of business, which is the process of recording, classifying, and summarizing financial information. Financial understanding of assets, liabilities, owner's equity, revenues, and expenses are covered for a service business and a merchandising business. Financial papers (journals, ledgers, balance sheets, income statements, worksheets, and trial balances) are covered for both types of businesses.

The ability to work on a continuous flow with the intentions of relating one area of concentration to another is needed.

The course includes the detailed financial statements required by both sole proprietorships and partnerships including Income Statement- Balance Sheets and Statement of changes' in owner's equity. It goes beyond basic financial statements and accounts for division of income and loss among partners and the liquidation of partnerships. The course guides as an introduction for different majors of Accounting allowing the students to make future choices.

Title: Business 2

Length & Credit: 1 year / 0.5 Credit

Grade: 11

Prerequisite: Completion of Business

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. Understanding Business introduces the world of business through a survey of fundamental concepts and challenges – managing change, economics, ethics and social responsibility, management and leadership, marketing, human resources, entrepreneurship, accounting and finance, global trade, information technology, and operations and supply chain. This course is designed to give students a working knowledge of business, as well as assist them in determining an area or two of business in which they would like to concentrate throughout their studies.