

A Brief Guide to Diploma Courses at AISM

Group 1: Studies in Language and Literature

Literature:

The course is built on the assumption that literature is concerned with our conceptions, interpretations and experiences of the world. The study of literature can therefore be seen as an exploration of the way it represents the complex pursuits, anxieties, joys and fears to which human beings are exposed in the daily business of living.

It enables an exploration of one of the more enduring fields of human creativity, and provides opportunities for encouraging independent, original, critical and clear thinking. It also promotes respect for the imagination and a perceptive approach to the understanding and interpretation of literary works.

Through the study of a wide range of literature, the course encourages students to appreciate the artistry of literature and to develop an ability to reflect critically on their reading. Works are studied in their literary and cultural contexts, through close study of individual texts and passages, and by considering a range of critical approaches. In view of the international nature of the IB and its commitment to intercultural understanding, the course does not limit the study of works to the products of one culture or the cultures covered by any one language. The study of works in translation is especially important in introducing students, through literature, to other cultural perspectives. The response to the study of literature is through oral and written communication, thus enabling students to develop and refine their command of language.

Language and Literature

Language A: language and literature comprises four parts—two relate to the study of language and two to the study of literature. The study of the texts produced in a language is central to an active engagement with language and culture and, by extension, to how we see and understand the world in which we live. A key aim of the course is to encourage students to question the meaning generated by language and texts, which, it can be argued, is rarely straightforward and unambiguous. Helping students to focus closely on the language of the texts they study and to become aware of the role of each text's wider context in shaping its meaning is central to the course.

The course aims to develop in student's skills of textual analysis and the understanding that texts, both literary and non-literary, can be seen as autonomous yet simultaneously related to culturally determined reading practices. The course is designed to be flexible—teachers have the opportunity to construct it in a way that reflects the interests and concerns that are relevant to their students while developing in students a range of transferable skills. An understanding of the ways in which formal elements are used to create meaning in a text is combined with an exploration of how that meaning is affected by reading practices that are culturally defined and by the circumstances of production and reception.

Self-taught Literature:

This is a literature course that may be studied in as many as eighty languages. Fifty of these have a prescribed list of authors (PLA). IB promotes respect for the literary heritage of the student's home language and provides an opportunity for students to continue to develop oral and written skills in their mother tongue while studying in a different language of instruction.

Where no teacher is available, a student may be allowed to study his or her particular language A as a school-supported self-taught language A: literature student (SL only).

Group 2: Language Acquisition- Portuguese and French

Language ab initio and language B are language acquisition courses designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where the language studied is spoken. This process encourages the learner to go beyond the confines of the classroom, expanding an awareness of the world and fostering respect for cultural diversity.

The group 2 courses use a balance between approaches to learning that are teacher-centred (teacher-led activities and assessment in the classroom) and those that are learner-centred (activities designed to allow the students to take the initiative, which can also involve student participation in the evaluation of their learning). The teacher is best placed to evaluate the needs of the students and is expected to encourage both independent and collaborative learning. The two modern language courses—language ab initio and language B—develop students' linguistic abilities through the development of receptive, productive and interactive skills.

Language B

Language B is an additional language-learning course designed for students with some previous learning of that language. It may be studied at either SL or HL. The main focus of the course is on language acquisition and development of language skills. These language skills should be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts, and should be related to the culture(s) concerned. The material should be chosen to enable students to develop mastery of language skills and intercultural understanding. It should not be intended solely for the study of specific subject matter or content.

Language Ab initio

The language ab initio course is organized into three themes.

- Individual and society
- Leisure and work
- Urban and rural environment

Each theme has a list of topics that provide the students with opportunities to practise and explore the language as well as to develop intercultural understanding. Through the development of receptive, productive and interactive skills, students should be able to respond and interact appropriately in a defined range of everyday situations. Each language ab initio course has a language-specific syllabus that is used in conjunction with the guide. Language ab initio is available at SL only.

Group 3: Individuals and Societies

History

History is more than the study of the past. It is the process of recording, reconstructing and interpreting the past through the investigation of a variety of sources. It is a discipline that gives people an understanding of themselves and others in relation to the world, both past and present.

Students of history should learn how the discipline works. It is an exploratory subject that poses questions without providing definitive answers. In order to understand the past, students must engage with it both through exposure to primary historical sources and through the work of historians. Historical study involves both selection and interpretation of data and critical evaluation of it. Students of history should appreciate the relative nature of historical knowledge and understanding, as each generation reflects its own world and preoccupations and as more evidence emerges. A study of history both requires and develops an individual's understanding of, and empathy for, people living in other periods and contexts.

Thus Diploma Programme history provides both structure and flexibility, fostering an understanding of major historical events in a global context. It requires students to make comparisons between similar and dissimilar solutions to common human situations, whether they be political, economic or social. It invites comparisons between, but not judgments of, different cultures, political systems and national traditions.

Economics

Economics is a dynamic social science. The study of economics is essentially about dealing with scarcity, resource allocation and the methods and processes by which choices are made in the satisfaction of human wants. As a social science, economics uses scientific methodologies that include quantitative and qualitative elements.

The course emphasizes the 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. These economic theories are not to be studied in a vacuum—rather, they are to be applied to real-world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability.

The ethical dimensions involved in the application of economic theories and policies permeate throughout the economics course as students are required to consider and reflect on human end-goals and values.

The economics 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.

Geography

Geography is a dynamic subject that is firmly grounded in the real world and focuses on the interactions between individuals, societies and the physical environment in both time and space. It seeks to identify trends and patterns in these interactions and examines the processes behind them. It also investigates the way that people adapt and respond to change and evaluates management strategies associated with such change. Geography describes and helps to explain the similarities and differences between spaces and places. These may be defined on a variety of scales and from a range of perspectives.

Geography is distinctive in that it occupies the middle ground between social sciences and natural sciences. The course integrates both physical and human geography, and ensures that students acquire elements of both scientific and socio-economic methodologies. Geography takes advantage of its position between both these groups of subjects to examine relevant concepts and ideas from a wide variety of disciplines. This helps students develop an appreciation of, and a respect for, alternative approaches, viewpoints and ideas.

Environmental Systems and Societies

As an interdisciplinary subject, environmental systems and societies is designed to combine the techniques and knowledge associated with group 4 (the experimental sciences) with those associated with group 3 (individuals and societies). The environmental systems and societies course is offered at SL only.

The prime intent of this course is to provide students with a coherent perspective of the interrelationships between environmental systems and societies; one that enables them to adopt an informed personal response to the wide range of pressing environmental issues that they will inevitably come to face. Students' attention can be constantly drawn to their own relationship with their environment and the significance of choices and decisions that they make in their own lives. It is intended that students develop a sound understanding of the interrelationships between environmental systems and societies, rather than a purely journalistic appreciation of environmental issues. The teaching approach therefore needs to be conducive to students evaluating the scientific, ethical and socio-political aspects of issues.

Group 4: Experimental Sciences

Biology

Biologists have accumulated huge amounts of information about living organisms, and it would be easy to confuse students by teaching large numbers of seemingly unrelated facts. In the course, it is hoped that students will acquire a limited body of facts and, at the same time, develop a broad, general understanding of the principles of the subject.

There are four basic biological concepts that run throughout.

Structure and function: This relationship is probably one of the most important in a study of biology and operates at all levels of complexity. Students should appreciate that structures permit some functions while, at the same time, limiting others.

Universality versus diversity: At the factual level, it soon becomes obvious to students that some molecules (for example, enzymes, amino acids, nucleic acids and ATP) are ubiquitous, and so are processes and structures. However, these universal features exist in a biological world of enormous diversity. Species exist in a range of habitats and show adaptations that relate structure to function. At another level, students can grasp the idea of a living world in which universality means that a diverse range of organisms (including ourselves) are connected and interdependent.

Equilibrium within systems: Checks and balances exist both within living organisms and within ecosystems. The state of dynamic equilibrium is essential for the continuity of life.

Evolution: The concept of evolution draws together the other themes. It can be regarded as change leading to diversity within constraints, and this leads to adaptations of structure and function.

Chemistry

Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. It is called the central science, as chemical principles underpin both the physical environment in which we live and all biological systems. Apart from being a subject worthy of study in its own right, chemistry is a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science, and serves as useful preparation for employment.

The course includes the essential principles of the subject but also, through selection of options, allows teachers some flexibility to tailor the course to meet the needs of their students.

The course is available at both standard level (SL) and higher level (HL), and therefore accommodates students who wish to study science in higher education and those who do not.

Physics

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.

Classical physics, built upon the great pillars of Newtonian mechanics, electromagnetism and thermodynamics, went a long way in deepening our understanding of the universe. However, experimental discoveries dating from the end of the 19th century eventually led to the demise of the classical picture of the universe as being knowable and predictable. Newtonian mechanics has been superseded by quantum mechanics and general relativity. More recently, developments in chaos theory, in which it is now realized that small changes in the initial conditions of a system can lead to completely unpredictable outcomes, have led to a fundamental rethinking in thermodynamics.

At the school level both theory and experiments should be undertaken by all students. They should complement one another naturally, as they do in the wider scientific community. The course allows students to develop traditional practical skills and techniques and to increase facility in the use of mathematics, which is the language of physics. It also allows students to develop interpersonal skills, and information and communication technology skills, which are essential in modern scientific endeavour and are important life-enhancing, transferable skills in their own right.

Sports, Exercise and health Science

The attainment of excellence in sport is the result of innate ability or skill and the dedicated pursuit of a programme of physical and mental training accompanied by appropriate nutrition. Training programme design should not be left to chance. Rather, it should be designed thoughtfully and analytically after careful consideration of the physiological, biomechanical and psychological demands of the activity. This is the role of the sport and exercise scientist, who, regardless of the athletic event, should be equipped with the necessary knowledge to be able to perform this task competently. Furthermore, in a world where many

millions of people are physically inactive and afflicted by chronic disease and ill health, the sport and exercise scientist should be equally proficient when prescribing exercise for the promotion of health and wellness.

Scientific inquiry conducted over many decades, has accumulated a vast amount of information across a range of sub-disciplines that contribute to our understanding of health and human performance in relation to sport and exercise. The Diploma Programme course in sports, exercise and health science involves the study of the science that underpins physical performance and provides the opportunity to apply these principles.

The course incorporates the traditional disciplines of anatomy and physiology, biomechanics, psychology and nutrition, which are studied in the context of sport, exercise and health. Students will cover a range of core and option topics and 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 analyse human performance. Where relevant, the course will address issues of internationalism and ethics by considering sport, exercise and health relative to the individual and in a global context.

Environmental Systems and Societies

See information above in Group 3

Group 5: Mathematics

The nature of mathematics can be summarized in a number of ways: for example, it can be seen as a well-defined body of knowledge, as an abstract system of ideas, or as a useful tool. Mathematics can enter our lives in a number of ways: we buy produce in the market, consult a timetable, read a newspaper, time a process or estimate a length. Mathematics, for most of us, also extends into our chosen profession: artists need to learn about perspective; musicians need to appreciate the mathematical relationships within and between different rhythms; economists need to recognize trends in financial dealings; and engineers need to take account of stress patterns in physical materials. Scientists view mathematics as a language that is central to our understanding of events that occur in the natural world. Some people enjoy the challenges offered by the logical methods of mathematics and the adventure in reason that mathematical proof has to offer.

Math Studies

This course is available at SL only. It caters for students with varied backgrounds and abilities. More specifically, it is designed to build confidence and encourage an appreciation of mathematics in students who do not anticipate a need for mathematics in their future studies. Students taking this course need to be already equipped with fundamental skills and a rudimentary knowledge of basic processes.

Math Standard

This course caters for students who already possess knowledge of basic mathematical concepts, and who are equipped with the skills needed to apply simple mathematical techniques correctly. The majority of these students will expect to need a sound mathematical background as they prepare for future studies in subjects such as chemistry, economics, psychology and business administration.

Math Higher

This course caters for students with a good background in mathematics who are competent in a range of analytical and technical skills. The majority of these students will be expecting to include mathematics as a major component of their university studies, either as a subject in its own right or within courses such as physics, engineering and technology. Others may take this subject because they have a strong interest in mathematics and enjoy meeting its challenges and engaging with its problems.

Group 6: The Arts

Theatre

The theatre course emphasizes the importance of working individually and as a member of an ensemble. Students are encouraged to develop the organizational and technical skills needed to express themselves creatively in theatre. A further challenge for students following this course is for them to become aware of their own perspectives and biases and to learn to respect those of others. This requires a willingness to understand alternative views, to respect and appreciate cultural diversity, and to see the varied role that theatre plays in reflecting these. As a result, the theatre course can become a way for students to celebrate the international and intercultural dynamic that inspires and sustains some forms of contemporary theatre, while appreciating the specifically local origins that have always given rise to performance, and which, in many parts of the world, still do.

At the core of the theatre course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement and imaginative synthesis—all of which should be achieved through practical engagement in theatre.

Visual Arts

The Diploma Programme visual arts course enables students to engage in both practical exploration and artistic production, and in independent contextual, visual and critical investigation. The course is designed to enable students to study visual arts in higher education and also welcomes those students who seek life enrichment through visual arts.