



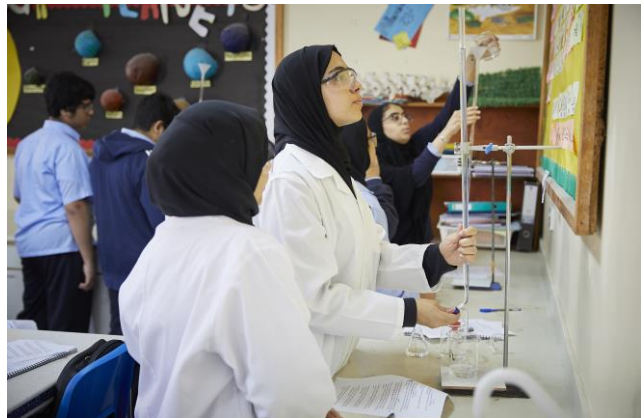
Family of Schools

مرکز تعلم متميز في قلب المجتمع
A Centre of Excellence in Learning
at the Heart of The Community

Grade 11 & 12

Post 16 Guided Pathways

2020 – 2021



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Dear student

As you look ahead to completing your IGCSEs, many of you will have the opportunity to continue your studies with us at the Ras Al Khaimah Academy. In continuing your studies with us you will embark upon a set of subjects that are laid out upon different academic pathways that will lead you directly into the world of work or onto university, either here in the UAE, or abroad.

The three qualifications available to you here at RAKA include:

- AS-Levels
- A-Level
- The International Baccalaureate (IB)

Pathway 1

Pathway 1 will see students who have achieved a minimum of 5 Grade C's at IGCSE study for **three** AS-Levels. These are completed over one academic year and can be continued in order to achieve three A-Level qualifications.

Students wishing to complete their high school studies at the end of Grade 11 (Year 12), must achieve *two D grades or higher at AS-Level*, allowing progression onto foundation university courses. Students may avoid the need to complete a yearlong foundation course at university by achieving the A-Level qualifications. Levels are better recognised throughout the United Kingdom and are a requirement for most universities within the United Kingdom and internationally.

Pathway	Minimum access requirements
<i>Pathway 1</i> - AS-Levels and/or A-Levels	5 C Grades or above at IGCSE

Students may wish instead to

Pathway 2

Pathway 2 will see students who have achieved at least three Grade B's at IGCSE study the International Baccalaureate. This is a highly regarded Post 16 qualification, which will place you at an advantage when considering the world's very best universities.

Pathway	Minimum access requirements
<i>Pathway 2</i> – The International Baccalaureate	5 C Grades or above at IGCSE, with B Grades in subjects that are to be studied at Higher Level.

This guide has been designed to help you make your decisions as well as giving you some advice on what to select. There are a number of people to help you:

- Parents
- Form tutor
- Careers Advisor
- School Counsellor
- Intervention Team Leader
- Subject teachers
- Senior staff

When considering courses, there are a number of questions you should be asking yourself:

Can I meet the minimum entry requirements?

Both pathways have a minimum access requirement. Progression onto either pathway represents a significant step up from IGCSE. Students achieving D grades or lower will struggle to meet the demands of the two pathways offered at RAKA, risking your ability to graduate from school and acquire the grades you need to access your desired career or university

Which subjects do my teachers recommend?

Your subject teachers know your ability and the standard of your work throughout Key Stage 4. Your tutor and teachers know you well, and they will be able to offer advice about the best balance of courses for you. Ensure you talk about your decisions with your parents and teachers.

What will I need for my chosen career?

The best advice is to decide what general areas of work interest you, look at the courses available in the brochure and then decide on the appropriate choice.

What will I need to progress into university?

Each university will have their own entry requirements, in turn the entry requirements for each course will vary too. It is important you consider where you would like to go to university and research the likely entry requirements in terms of courses studied and grades needed.

Things to do!

- Read the booklet carefully
- Talk it over with your parents/carers
- Ask your form tutor for advice
- Speak to your teachers, our Careers Advisor and your Intervention Team Leader
- Complete the Guided Choices Form given to you and hand it to Ms Dua Zain by

Wednesday 05th February 2020



INTERNATIONAL BACCALAUREATE DIPLOMA MERIT SCHOLARSHIP

NOW OPEN FOR APPLICATIONS

**ARE YOU A GRADE 10 STUDENT WITH STRONG ACADEMIC
RECORD AND COMMUNITY INVOLVEMENT?**

THIS ANNOUNCEMENT IS FOR YOU!

RAK Academy offers Merit Scholarships to high performing students who plan to pursue the two-year International Baccalaureate (IB) diploma during Grades 11 and 12, covering 50-90% of tuition and fees.

HOW TO APPLY?

- ✓ Fill out the Scholarship Application Form
- ✓ Submit a short statement mentioning why you want to get an IB diploma and how this will impact your future
- ✓ Provide a list of extracurricular activities and any awards
- ✓ Present a recommendation letter from two current Grade 10 teachers
- ✓ Submit documentation indicating predicted IGCSE exam results
- ✓ Complete verbal and quantitative assessment

APPLY NOW!

Contact us: scholarships@rakacademy.org

University Advice & Careers Counselling at RAK ACADEMY

Ras al Khaimah Academy aims to assist our students as they plan their path to university and beyond. The university application process is both challenging and exciting, and requires good preparation.

Beginning in Grade 9 and continuing through to Grade 12, we aim to provide students with careful guidance on course selection and academic performance.

Careers Counselling

The role of the Careers Counsellor is to:

- Provide interest surveys and personality testing
- Assist in course selection geared towards a future career
- Show students how to research careers online through books and catalogues that are provided in the Sixth Form.
- Encourage students to gain work experience and assists them with their applications and scholarships.

Advice on choosing Universities

- Students will be supported to find out what qualifications are needed for their intended course of study and to get into universities worldwide
- Students will be shown how to choose a course of study and find the right university for them. Factors such as location, university rankings, entry requirements, tuition fees, and application deadlines, application strategies and the application cycle are considered.
- Students will be guided as to how to write personal statements and college essays in special workshops
- Parents will be invited in to find out about the university application process, with discussions had about the local & international university requirements.

Purpose of the Personality Test:

1. It is a tool that allows students to understand the basic information about who they are.
2. Supports students in their transition from high school to college
3. Develops decision making skills and positive attitudes to enter the job market
4. Encourages students to have realistic expectations
5. Develops the attributes & behaviors of students to meet life challenges during school & after college.

For any further enquiries about Universities, Careers or course selection, feel free to contact Mr. Wadih located in the Sixth Form.

Wadih Abou Aziz

University Advisor / Careers Counsellor

Email: wadih.abouaziz@rakacademy.org

Useful links

Ministry of Education: www.moe.gov.ae

International exams

Cambridge International www.cambridgeinternational.org
Edexcel: <https://qualifications.pearson.com/en/home.html>
IELTS: www.ielts.org
TOEFL: www.ets.org/toefl
SAT: www.collegeboard.org

University guidance:

UCAS: www.ucas.com
Common application: www.commonapp.org
Big Future: www.bigfuture.collegeboard.org
Unistats: www.unistats.direct.gov.uk
Top Universities www.topuniversities.com

Careers advice & support:

Courses/careers: www.courses-careers.com
Careers portal: www.careers-portal.co.uk
Futurewise: www.myfuturewise.org.uk
Future Morph: www.futuremorph.org
STEM: www.wherestemcantakeyou.co.uk
Career test: www.yourfreecareertest.com

Personality Test: www.truity.com/test/300-question-personality-test

And finally ...

Subjects are placed into blocks for timetabling; consequently, not all combinations will be possible.

All students must make a reserve choice on the option form. This can be from any of the subjects offered.

Whilst we do our best to ensure you get the choices you have made, there are times when this proves impossible. There are a number of reasons for this. For example, some courses may not run if there is insufficient demand. Some may clash on the timetable. We will always consult you if this happens. However, it is important that you put as much thought into your reserve choice as you do your other choices.

Once students start a course they are expected to finish it, so please choose carefully. In all but the most exceptional of circumstances, there will be no transfers to other courses.

The completed sheet should be handed in to Ms Dua Zain by
Wednesday 05th February 2020

If you hand in your form late, you are less likely to get the choices you want.

Please rest assured your future is of the utmost importance and we will do our best to accommodate your choices, ensuring they are the best ones to support your future, whatever that may be.

Performance Measures

How student performance will be measured and reported

The Ministry of Education stipulates that students will be unable to graduate from Grade 11 without achieving a minimum of two AS-Levels at a D Grade or higher, this is in addition to the five IGCSEs needed in approved subjects at a Grade E or higher. This will mean that students failing to achieve these grades will be forced to repeat Grade 11.

The Ministry of Education requirement is a minimum, students should aspire to achieving the very best possible grades, internationally a Grade C is considered a 'good pass'.

Students wishing to progress and attend one of the world's most prestigious universities should look to study three full A-Level's or opt for the IB Programme. Most universities expect students to achieve Grade B or higher at A-Level and Grade 4 or higher at IB.

Post 16 Grading

	Key Stage 5 AS/A-Level Grades	Key Stage 5 IB Grades	Supporting Comments
Emerging	G	1	
Developing	F	2	
	E	3	
	D	4	MOE Minimum
Embedded	C	5	International Pass
	B	6	
	B	6	
Exceeding	A	7	
	A*	7	

Key Stage 5 Pathway 1

AS and A-Levels

Pathway 1

Pathway 1 will see students who have achieved Grade C's at IGCSE study for **three** AS-Levels over one academic year, with the option to continue their studies into a second academic year to achieve the full A-Level in each subject. A-Levels are better recognised throughout the United Kingdom and are a requirement for most universities within the United Kingdom and internationally.

Note

Access to either Pathway 1 require students to achieve 5 C or higher Grades at IGCSE

Pathway	Core Subjects	Qualification	Column A Select one subject	Column B Select one subject	Column C Select one subject	Column D Select one subject
1 You are required to choose three subjects from three of the four columns	Ministry Arabic Islamic Studies	AS-Level A-Level	Physics English Language Geography Computer Science	Biology Computer Science History Maths Physical Education	Business Studies Chemistry English Literature Economics*	Psychology Business Studies French Maths DT

* A minimum of a B in English and Mathematics at IGCSE is needed to enrol upon the Economics course

Key Stage 5 Pathway 2

International Baccalaureate (IBDP)

Pathway 2

Pathway 2 will see students who have achieved at least three Grade B's at IGCSE study the International Baccalaureate. This is a highly regarded Post 16 qualification, which will place you at an advantage when considering the world's very best universities.

Note

Access to **Pathway 2** require students to achieve 5 C Grades at IGCSE, which must include a further three Grades at a B Grade or higher.

		You must choose one subject from each column					
Pathway	Core Subjects	Group 1 Studies in Language	Group 2 Language Acquisition	Group 3 Individuals and Society	Group 4 Sciences	Group 5 Maths	Group 6 Arts
2	Ministry Arabic Islamic Studies Theory of Knowledge	English (HL) English (SL)	Arabic French Spanish (AB)	Psychology Geography History Business Management	Biology Chemistry Physics Computer Science	Maths (HL) Maths (SL)	Art DT Music Or another subject from Group 2,3 or 4.

The IB Diploma Programme (IBDP) is a rigorous, academically challenging and balanced two-year programme of education designed to prepare students aged 16 to 19 for success at university and in life beyond. The DP provides opportunities to develop both disciplinary and interdisciplinary understanding that meets rigorous standards. It encourages students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints.

The IBDP uses both internally and externally assessed components to assess student performance. Externally marked summative assessments at the end of the course typically make up around 80% of the student's final course grade, although internally marked formative and summative assessments can account for as much as 50% of the grade for some courses. The marks awarded for each course range from 1 (lowest) to 7 (highest), and are awarded based on the extent to which students master basic and advanced academic skills, such as:

- knowledge and understanding of content and concepts
- critical thinking, reflective, research and independent learning skills
- application of standard methods
- analysing and presenting information
- evaluating and constructing arguments
- creative problem-solving
- intercultural understanding and international outlook

Tutor time discussions

How you make the best choices

It is really important to make the right decision about the subjects you choose for study in Key Stage 5. You will **not be able** to make changes once the courses have started, so think very carefully about what you want.

Consider subjects, combinations of subjects and the amount and type of coursework and/or independent study that will be needed. It is often best to study a breadth of subjects.

Don't choose any subject just because you like a particular teacher, as there is no guarantee that this member of staff will teach you. **Don't** pick because your friends make a choice, as you may be put in a different class, and you must choose what is right for you – not them!

Going through the steps below with your form tutor will help you decide what will be right for you.

Stage 1 – Your Future

What are your thoughts and plans for the future? Do you think you will go to university or straight into work? Do you have an idea of the sort of work you eventually see yourself doing? Have you an idea of the career you want to follow?

Filling in each of the following where you can, should help you:

After I leave school I can see myself going:					
To an International University		To UAE University		To work	

The subject area(s) I want to study for my degree are:
The entry criteria for the country where I wish to attend university is:
The qualifications needed for me to go straight into work are:

Stage 2 – Subjects from Key Stage 4

Think about how well you are progressing in your Key Stage 4 subjects. Fill in the boxes on the right of each subject: whether you have previously studied it at IGCSE, your target grade, your predicted grade and how much you enjoy it – or not! (score yourself 5 down to 1) and why.

Subject	Studied at IGCSE	Target Grade	Predicted Grade	Like 1-5	Reasons
Arabic*					
Biology					
Business Studies					
Chemistry					
Computer Science					
DT					
English Language					
English Literature					
French					
Geography					
History					
Islamic *					
Maths					
Physics					
Psychology					

* Compulsory subjects

The AS and A Level Curriculum

Arabic*

Arabic *(A-Level)*

Biology

Business Studies

Chemistry

Computer Science

Design Technology

Economics

English Language

English Literature

French

Geography

History

Islamic Studies*

Mathematics

Physical Education**

Physics

Psychology

* A Ministry of Education required course in Grade 11 only

** Denotes subjects that are not recognised by the Ministry of Education for equivalence purposes

Arabic

Exam board and specification number – Cambridge International A Level 9680

Who is this course suitable for and why choose it?

First language Arabic students with good previous experience of learning the target language. The main focus of the course is on language acquisition and the development of skills. Note that Arabic is not a subject recognised for equivalence by the Ministry of Education for the UAE.

Brief introduction:

Areas of study – what will I learn?

The course will give the students the opportunity to reach a high degree of competence in Arabic and explore the cultures using the language. The range of purposes and situations for which and in which the language is used leads the students to the domain of work, social relationships, and the discussion of abstract ideas. The types of language needed for these purposes and situations are refined.

The syllabus develops your understanding and ability to communicate across the following topics:

- Application
- Reading and directed writing
- Formal letter
- Description
- Dialogue
- Story writing
- Writing a report
- Summarizing
- Poetry writing
- A wide range of Arabic grammatical rules.

Course assessment – how will I be assessed?

Paper	Paper type	Final grade (%)	Time (min)	Unit examination date
Paper 1 Reading and Writing	Externally assessed, written examination	35	105	June
Paper 2 Essay	Externally assessed, written examination	20	90	June
Paper 3 Texts	Externally assessed, written examination	35	150	June
Paper 4 Prose	Externally assessed, written examination	10	45	June

Where might the course take you?

Apart from improving your ability to speak and write in Arabic, this course will give you some of the skills that you need to study Arabic at university, as well as improve your overall Arabic language abilities.

Subject contact: Subject Leader – Mr. Ibrahim Alqabbani: Ibrahim.alqabbani@rakacademy.org

Biology

Exam board and specification number – Edexcel International A Level YBI11 / AS XBI11

Who is this course suitable for and why choose it?

The content is relevant for students who have achieved a GCSE in Biology and who want to study this subject at a higher level. The syllabus covers the major topics in biology, including biological molecules, diet, transport, health, cells, development, biodiversity, conservation, energy, the environment, microbiology, immunity, respiration, the internal environment, coordination and gene technology.

Brief introduction:

Areas of study – what will I learn?

The Edexcel International A Level Biology course is split into 6 units:

- Unit 1: Molecules, Diet, Transport and Health (IAS)
- Unit 2: Cells, Development, Biodiversity and Conservation (IAS)
- Unit 3: Practical Skills in Biology I (IAS)
- Unit 4: Energy, Environment, Microbiology and Immunity (IA2)
- Unit 5: Respiration, Internal Environment, Coordination and Gene Technology (IA2)
- Unit 6: Practical Skills in Biology II (IA2)

Course assessment – how will I be assessed?

- Six externally assessed written examinations

AS Biology	A Level Biology
Unit 1: Molecules, Diet, Transport and Health 80marks / 1hr 30min / January & June Examinations 40% of IAS and 20% of IAL	Unit 4: Energy, Environment, Microbiology and Immunity 90marks / 1hr 45min / January & June Examinations 40% of IA2 and 20% of IAL
Unit 2: Cells, development, Biodiversity and Conservation 80marks / 1hr 30min / January & June Examinations 40% of IAS and 20% of IAL	Unit 5: Respiration, Internal Environment, Coordination and Gene Technology 90marks / 1hr 45min / January & June Examinations 40% of IA2 and 20% of IAL
Unit 3: Practical Skills in Biology I 50marks / 1hr 20min / January & June Examinations 20% of IAS and 10% of IAL	Unit 6: Practical Skills in Biology II 50marks / 1hr 20min / January & June Examinations 20% of IA2 and 10% of IAL

Where might the course take you?

Biology provides a good Scientific foundation for all career paths, allowing pupils to develop their analytical skills, practical techniques, and knowledge application within the context of Biology. Students considering the field of teaching, psychology, medicine, veterinary medicine, biological research or the general health profession should consider taking this course.

Subject contact: Subject Leader – Mrs Marilla Wiggins - Marilla.Wiggins@rakacademy.org

Business Studies

Exam board and specification number – International Advanced Level Business Edexcel-
XBS11/YBS11

Who is this course suitable for and why choose it?

This course would be suitable for students who are keen to understand how businesses operate in the real world. Students will learn to appreciate the role of people in business, how to calculate and interpret business data, analyse business situations and provide appropriate recommendations. The course is aimed at students who are creative thinkers, have a fair grasp of Mathematics and who are committed and enthusiastic about learning how businesses work.

Brief introduction:

Main aims of the course and skills developed throughout the course

The course is designed to give you an understanding of the different forms of business organisations, the environment in which businesses operate and business functions such as marketing, operations and finance.

Areas of study – what will I learn?

Students will be given the opportunity to explore the following themes:

- Meeting customer needs
- The market
- Marketing mix and Strategy
- Managing people
- Entrepreneurs and leaders
- Planning a business and raising finance
- Financial planning
- Managing finance
- Resource management
- External influences

Course assessment – how will I be assessed?

All candidates take two papers as part of the AS programme and a further two to complete the A-Level.

Paper 1: Unit 1	Paper 2: Unit 2	Paper 1: Unit 3	Paper 1: Unit 3
Written assessment 2hrs Section A: Short and extended response questions Section B: Same format as section A, based on different sources Section C: One 20- mark essay 50%	Written assessment 2hrs Section A: Short and extended response questions Section B: Same format as section A, based on different sources Section C: One 20- mark essay 50%	Written assessment 2hrs Section A: Short and extended response questions based on sources Section B: One 20- mark essay question Section C: One 20- mark essay question 50%	Written assessment 2hrs Section A: Short and extended response questions based on sources Section B: One 20- mark essay question Section C: One 20- mark essay question 50%

Where might the course take you?

This course is good preparation for A2 Level courses in Business, Economics or IB Business Management. It would also be useful to any students who wish to set up or run their own business. Students interested in a wide range of careers including retail, accounting, travel & tourism, financial services, charities and general management would benefit from the skills and themes covered

Subject contact: Mrs P Seymour – phillippa.seymour@rakacademy.org

Chemistry

Exam board and specification number – Edexcel International A Level YCH11 / AS XCH11

Who is this course suitable for and why choose it?

The content is relevant for students who have achieved a GCSE in Chemistry and who want to study the subject at a higher level. The syllabus covers the major topics in chemistry, including molar calculations, structure and bonding, energetics, rates, equilibria, Group chemistry, transition metals and a range of organic chemistry; as well as associated experimental skills.

Brief introduction:

Areas of study – what will I learn?

The Edexcel International A Level Chemistry course is split into 6 units:

- Unit 1: Structure, Bonding and Introduction to Organic Chemistry (IAS)
- Unit 2: Energetics, Group Chemistry, Halogenoalkanes and Alcohols (IAS)
- Unit 3: Practical Skills in Chemistry I (IAS)
- Unit 4: Rates, Equilibria and Further Organic Chemistry (IA2)
- Unit 5: Transition Metals and Organic Nitrogen Chemistry (IA2)
- Unit 6: Practical Skills in Chemistry II (IA2)

Course assessment – how will I be assessed?

- Six externally assessed written examinations

AS Chemistry	A Level Chemistry
Unit 1: Structure, Bonding and Introduction to Organic Chemistry 80marks / 1hr 30min / January & June Examinations 40% of IAS and 20% of IAL	Unit 4: Rates, Equilibria and Further Organic Chemistry 90marks / 1hr 45min / January & June Examinations 40% of IA2 and 20% of IAL
Unit 2: Energetics, Group Chemistry, Halogenoalkanes and Alcohols 80marks / 1hr 30min / January & June Examinations 40% of IAS and 20% of IAL	Unit 5: Transition Metals and Organic Nitrogen Chemistry 90marks / 1hr 45min / January & June Examinations 40% of IA2 and 20% of IAL
Unit 3: Practical Skills in Chemistry I 50marks / 1hr 20min / January & June Examinations 20% of IAS and 10% of IAL	Unit 6: Practical Skills in Chemistry II 50marks / 1hr 20min / January & June Examinations 20% of IA2 and 10% of IAL

Where might the course take you?

A2 Level Chemistry provides a good scientific foundation for all career paths, allowing pupils to develop their analytical skills, practical techniques, and knowledge application within the context of Chemistry. Students considering the field of medicine, pharmacy, or chemical engineering should consider taking this course.

Subject contact: Subject Leader – Mrs Marilla Wiggins - Marilla.Wiggins@rakacademy.org

Computer Science

Exam board and specification number – Cambridge 9608

Who is this course suitable for and why choose it?

The aim of the Cambridge International AS and A Level Computer Science syllabus is to encourage learners to develop an understanding of the fundamental principles of computer science and how computer programs work in a range of contexts. Learners will study topics including information representation, communication and Internet technologies, hardware, software development, and relational database modelling.

As they progress, learners will develop their computational thinking and use problem solving to develop computer-based solutions using algorithms and programming languages. Studying Cambridge International AS and A Level Computer Science will help learners develop a range of skills such as thinking creatively, analytically, logically and critically.

Brief introduction:

Areas of study – what will I learn?

Pupils will study a variety of Practical and theory topics;

AS Level

Topic 1.1: Information Representation
Topic 1.2: Communication and Internet technologies
Topic 1.3: Hardware
Topic 1.4: Processor fundamentals
Topic 1.5: Systems software
Topic 1.6: Security, privacy and data integrity
Topic 1.7: Ethics and ownership
Topic 1.8: Database and data modelling

Topic 2.1: Algorithm design and problem-solving
Topic 2.2: Data representation
Topic 2.3: Programming
Topic 2.4: Software Development

A Level

Topic 3.1: Data Representation
Topic 3.2: Technologies and Internet technologies
Topic 3.3: Hardware
Topic 3.4: Systems Software
Topic 3.5: Security
Topic 3.6: Monitoring and Control system

Topic 4.1 Computational thinking and problem-solving
Topic 4.2: Algorithm design methods
Topic 4.3: Further Programming
Topic 4.4: Software Development

Course assessment – how will I be assessed?

Component	Weighing	
	AS Level (1 st Year)	A Level (2 nd Year)
Paper 1 Theory Fundamentals – 1hour 30mins	50%	25%
Paper 2 Fundamental Problem Solving and Programming skills - 2hours	50%	25%
Papers 3 Advanced Theory- 1hour 30mins		25%
Paper 4 Further Problem solving and Programming Skills- 2 hours		25%

Where might the course take you?

This course is suitable for candidates intending to pursue careers or further study in Computer Science.

Subject contact: Subject Leader – Mr Loganathan - ezhilarasu.loganathan@rakacademy.org

Design Technology

Exam board and specification number – Edexcel – 9DT0

Who is this course suitable for and why choose it?

We would normally expect you to have studied Design and Technology at IGCSE. This course has something to offer all students. Timetabled sessions will be divided between the pursuit of project work, the development of skills and the learning of associated theoretical knowledge.

Brief introduction:

Main aims of the course and skills developed throughout the course

The course is designed to offer students the opportunity to study, propose, develop and realise prototype solutions. Additionally, it will involve a variety of designing and making situations, closely related to the real world of product design and manufacture. Students will be encouraged to produce high-quality products that could be seen in a given consumer market.

Areas of study – what will I learn?

Students will be given the opportunity to explore the following themes around the Principles of Design and Technology:

- Topic 1: Materials
- Topic 2: Performance characteristics of materials
- Topic 3: Processes and techniques
- Topic 4: Digital technologies
- Topic 5: Factors influencing the development of products
- Topic 6: Effects of technological developments
- Topic 7: Potential hazards and risk assessment
- Topic 8: Features of manufacturing industries
- Topic 9: Designing for maintenance and the cleaner environment
- Topic 10: Current legislation
- Topic 11: Information handling, Modelling and forward planning
- Topic 12: Further processes and techniques

Course assessment – how will I be assessed?

Edexcel Product Design course is a two 2 years A-level course.

The qualification is made up of two components; an exam paper and coursework task (similar to that of IGCSE Design Technology). The weighting of the coursework is 50% -A level, which gives an equal split between the examined component and the coursework.

Component 1 – Exam	Component 2 – Controlled Assessment/Coursework
A Level- Component 1: Exam: 2 hours 30 mins -Externally assessed (code: 9DT0/01)	A Level- Component 2: Independent Design and Make Project (code: 9DT0/02)* Internally assessed and externally moderated
Weight: 50% of the qualification 120 marks	Weight: 50% of the qualification 120 marks

Component 2: The coursework project enables students to demonstrate their creative and practical skills in developing a commercially viable product. Within the coursework, students will undertake a substantial design, make and evaluate project. The project will be of their choice.

Where might the course take you?

These examinations are not only a recognised qualification for entry to institutes of higher education, but also permit the successful student to pursue a wide range of design-based careers from; Product Design, Technical Illustration, Architecture, Mechanical Engineering, Product Manufacture and Development, Engineering including civil , advertising to graphic design, set design, marketing and promotion and many others. The possibilities are exciting, influential and diverse.

Subject contact: Mr Gaston Campbell - gaston.campbell@rakacademy.org

Economics

Exam board and specification number – Cambridge International Examinations - 9708

Who is this course suitable for and why choose it?

This course would be suitable for students who are keen to understand economics in business. The course will cover a range of basic economic ideas, including an introduction to the price system and government intervention, international trade and exchange rates, the measurement of employment and inflation, and the causes and consequences of inflation. Students will also study the theory of the firm, market failure, macroeconomic theory and policy, and economic growth and development. The course is aimed at students who are creative thinkers and have a good grasp of Mathematics.

Course requirements

A minimum of a B grade in both English and Mathematics at IGCSE is required to enrol and undertake this course.

Brief introduction:

Main aims of the course and skills developed throughout the course

The aims of the course is to enable students to, develop an interest in, and enthusiasm for, the subject, appreciate the contribution of economics to the understanding of the wider economic and social environment. Students will develop analytical and quantitative skills, together with qualities and attitudes that will equip them for the challenges, opportunities and responsibilities of adult and working life.

Areas of study – what will I learn?

Students will be given the opportunity to explore the following themes:

- Basic economic ideas and resource allocation
- The price system and the micro economy
- Government microeconomic intervention
- The macro economy
- Government macro intervention

Course assessment – how will I be assessed?

100% Examination. All candidates take two papers

Paper 1: Multiple Choice (40%) 1 hour Multiple choice questions based on the AS Level syllabus content 30 marks Externally assessed	Paper 2: Data Response and Essay 1 hour 30 Section A: one data response question (20 marks) (30%) Section B: one structured essay from a choice of three (20 marks) (30%) Externally assessed
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Where might the course take you?

Cambridge International IAS and IA Level Economics provides a suitable foundation for the study of Economics or related courses in higher education. Equally it is suitable as part of a course of general education.

Subject contact: Mrs P. Seymour: - phillippa.seymour@rakacademy.org

English Language

Exam board and specification: Cambridge International Examinations 9093

Who is this course suitable for and why choose it?

This course is suitable for students who aim for a career involving social sciences, journalism, creative writing etc. and anyone who is interested in learning and appreciating language. It enables students to develop:

- the ability to appreciate how different texts are shaped by their language and style
- skills in creating their own imaginative and persuasive writing for different purposes and audiences
- skills in researching, selecting and shaping information from different sources
- the ability to analyse and compare written and spoken texts in close detail.

Brief introduction:

Areas of study – what will I learn?

Cambridge International AS Level English Language provides candidates opportunities to make critical and informed responses to texts which are wide-ranging in their form, style and context. Candidates will also produce their own imaginative writing, and will demonstrate their ability to produce writing for given audiences. Those who opt for Cambridge International A Level English Language will develop a strong foundation in the study of linguistics, focusing on spoken language, English as a global language and language acquisition.

Course assessment – how will I be assessed?

Cambridge International candidates take:

Paper 1 Passages	Duration	Weighting
The paper contains three questions-Writing a commentary and directed writing Candidates answer two questions: Question 1, and either Question 2 or Question 3. Questions carry equal marks. Externally assessed. 50 marks	2 hours 15 minutes	50%

and

Paper 2 Writing	Duration	Weighting
Two sections: Section A and Section B. Candidates answer two questions: one from Section A (Imaginative writing) and one from Section B(Writing for a specific purpose and audience). Questions carry equal marks. Externally assessed. 50 marks	2 hours	50%

Where might the course take you?

This course is suitable as a foundation for many undergraduate courses, particularly pupils interested in arts and humanities degrees. Students considering the field of law, journalism, teaching or media could consider taking this course.

Subject contact: Subject Leader – Jennifer Griffiths - jennifer.griffiths@rakacademy.org

English Literature

Exam board and specification number – Cambridge International English Literature 9695

Who is this course suitable for and why choose it?

Cambridge International English Literature enables learners to develop:

- A detailed knowledge and understanding of poetry, drama and prose.
- The ability to analyse written texts in great depth.
- The ability to appreciate how different texts are shaped by their language and style.
- The ability to appreciate and discuss different opinions on literary texts (A Level only)

This course is suitable for pupils who read extensively outside of the classroom and who enjoy analysing literary texts and forming their own personal response. Pupils will be expected to complete individual study of between 4-6 hours a week outside of classroom teaching hours.

Brief introduction:

Areas of study – what will I learn?

Pupils will study three main forms of Literature in significant depth – Poetry, Prose and Drama.

Poetry and Prose

The paper contains two sections: Section A: Poetry and Section B: Prose. Candidates answer two questions, each from a different section. An essay question and a passage-based question are set on each text.

In all answers, candidates must show understanding of the text and an informed independent opinion; they must communicate these clearly and appropriately. Questions will test candidates' understanding of:

- The ways in which writers' choices of form, structure and language shape meanings.
- The language and style of texts.
- The effective use of narrative methods.
- How parts of the text relate to the work as a whole.

Drama

Candidates answer two questions on two plays. An essay question and a passage-based question are set on each text. In all answers, candidates must show understanding of the text and an informed independent opinion; they must communicate these clearly and appropriately. Questions will test candidates' understanding of:

- The ways in which writers' choices of form, structure and language shape meanings.
- The language and style of texts.
- The effective use of narrative methods.
- How parts of the text relate to the work as a whole.
- The dramatic qualities of play texts.

Course assessment – how will I be assessed?

- 100% examination, students will sit 3 papers.

Paper	Paper type	Final grade	Time (min)
Paper 3- Poetry and Prose	Externally assessed, written examination,	50%	120
Paper 4 - Drama	Externally assessed, written examination,	50%	120

Where might the course take you?

This course is suitable as a foundation for many undergraduate courses, particularly pupils interested in arts and humanities degrees. Students considering the field of law, journalism, teaching or media could consider taking this course.

Subject contact: Subject Leader – Jennifer Griffiths - jennifer.griffiths@rakacademy.org

French

Exam board and specification number – Edexcel French

Who is this course suitable for and why choose it?

Edexcel French enables learners to develop:

- Students to achieve greater fluency, accuracy and confidence in the language as it is spoken and written, and improve their communication skills.
- They will learn how to improve their use of French in a variety of situations, understanding how to read texts and other source materials, extract information, initiate conversations and respond to questions both orally and in writing.

Brief introduction:

Areas of study – what will I learn?

Papers 1 and 3 will be based on content from the following themes. The themes address a range of social issues and trends, as well as aspects of the political and artistic culture of France and French-speaking countries. Theme 1 focuses on aspects of society of France only. Theme 2 requires students to broaden their knowledge across any Francophone country/countries and/or community/communities. Each theme is broken into three sub-themes.

Theme 1- Les changements dans la société française

Theme 1 is set in the context of France only. This theme covers social issues and trends.

- Les changements dans les structures familiales Les changements dans les attitudes envers le mariage, les couples et la famille.
- L'éducation Le système éducatif et les questions estudiantines.
- Le monde du travail La vie active en France et les attitudes envers le travail; le droit à la grève; l'égalité des sexes.

Theme 2- La culture politique et artistique dans les pays francophones

Theme 2 is set in the context of Francophone countries and communities. This theme covers artistic culture (through music and festivals and traditions) and political and artistic culture (through media).

- La musique Les changements et les développements; l'impact de la musique sur la culture populaire.
- Les médias La liberté d'expression; la presse écrite et en ligne; l'impact sur la société et la politique.
- Les festivals et les traditions Les festivals, fêtes, coutumes et traditions.

Course assessment – how will I be assessed?

- 100% examination, students will sit 3 papers.

Paper	Paper type	Final grade (%)	Time (min)	Unit examination date
Paper 1: Listening, reading and translation	Externally assessed, written examination, 64 marks	40	1hr 45	June
Paper 2: Written response to works and translation	Externally assessed, written examination, 60 marks	30	1hr 40	June
Paper 3: Speaking	Internally conducted and externally assessed, 72 marks	30	30	May

Where might the course take you?

Students will develop an advanced level of knowledge and understanding of the French language, the culture of France and other Francophone countries, as well as practical and valuable language and transferable study skills. AS and A Level French will help to prepare students for higher education and enhance their employability profile.

Subject contact: Subject Leader - Ms.Jakeya Khanom - jakeya.khanom@rakacademy.org

Geography

Exam board and Specification number: Cambridge International Education Geography 9696

Who is this course suitable for and why choose it?

- This course is suitable for anyone who has studied and enjoyed Geography at IGCSE level.
- AS Geography with Cambridge allows students to explore a range of topics within Geography in depth.
- It can develop a variety of reading, writing, analytical, and team work skills and will successfully prepare students to study the course at university.

Brief Introduction:

Areas of study: What I will learn?

Paper 1: Physical Geography

Hydrology and Fluvial Geomorphology, Atmosphere and Weather and Rocks and Weathering.

The Hydrology and Fluvial Geomorphology section will look at, the drainage basin system, river channel processes and landforms, how humans can impact rivers and a case study on the causes and impacts of flooding on a river basin. The Atmosphere and Weather section will look at, diurnal energy budgets, the global energy budget, weather processes and phenomena such as how rainfall, clouds and mist and fog are formed and the impacts humans have on the greenhouse effect. The Rocks and Weathering section will look at, plate tectonics, weathering, slope processes and how humans impact the stability of slopes.

Paper 2: Human Geography

Population, migration and settlement dynamics.

The Population section will look at how the population has changed, demographic transition, the causes and consequences of food shortages as a result of population increase and the management of natural resources. The Migration section will look at, how migration impacts population change, the differences between internal and international migration and the management of international migration – in relation to a case study. Finally the Settlement Dynamics section will look at changes in rural settlements, urban trends and issues with urbanisation, the changing structure of urban settlements and the management of urban settlements.

Course assessment – How will I be assessed?

- 100% examination based. Students will sit 2 papers.

Name of Assessment	Assessment Type	Final Grade (%)	Time (min)	Unit Examination date
Paper 1: Core Physical Geography	Externally assessed written examination	50%	1 hour 30 minutes	June
Paper 2: Core Human Geography	Externally assessed written examination	50%	1 hour 30 minutes.	June

Where might this course take you?

Studying Geography can open doors to a number of careers including; planning, environmental studies, development and tourism.

Subject Contact: Subject Leader: Ms A Philips - ashleigh.philips@rakacademy.org

History

Exam board and Specification number: Edexcel 8HIO

Who is this course suitable for and why choose it?

Edexcel History enables learners to develop:

- Knowledge on the first communist state in the world The USSR and the German Democratic Republic.
- Essay writing skills, source analysis skills and Interpretations of history.

Brief Introduction:

Areas of study: What I will learn?

Paper 1- Russia, 1917-92: From Lenin to Yeltsin

Communist government in the USSR, 1917-1985 Industrial and Agricultural change, 1917-1985
Control of the people, 1917-1985 Social Developments, 1917-1985
What explains the fall of the USSR? c1985-1991

Students will demonstrate, organise and communicate knowledge and understanding to analyse and evaluate the key features related to the periods studied, making substantiated judgements and exploring concepts, as relevant, of cause, consequence, change, continuity, similarity, difference and significance.

Analyse and evaluate, in relation to the historical context different ways in which aspects of the past have been interpreted.

Paper 2- The German Democratic Republic, 1949-1990

Establishing and consolidating communist rule in the GDR, c1949-61 Life in East Germany, 1949-85
The development of the East German state, 1961-85 Growing crises and the collapse of the communist

Demonstrate, organise and communicate knowledge and understanding to analyse and evaluate the key features related to the periods studied, making substantiated judgements and exploring concepts, as relevant, of cause, consequence, change, continuity, similarity, difference and significance. Analyse and evaluate appropriate source material, primary and/or contemporary to the period, within its historical context.

Course assessment – how will I be assessed?

Paper	Paper type	Final grade (%)	Time (min)	Unit examination date
Paper 1: Breadth study Russia, 1917-92: From Lenin to Yeltsin	Externally assessed, Written examination, Marks available 60	60	135	May/June
Paper 2: Depth study- The German Democratic Republic, 1949-1990	Externally assessed, written examination, 40 marks	40	90	May/June

Where might the course take you?

History provides a good foundation for all career paths. The qualification provides the skills required at university level for academic essay writing. The popular degree options amongst AS History students are- English Language, International Relations, Law, Medicine and Psychology.

Subject contact: Subject Leader – Ms S.Azam - salma.azam@rakacademy.org

Mathematics

Exam board and specification number – Edexcel International A Level WMA02/01 and WME01

Who is this course suitable for and why choose it?

Edexcel International Mathematics enables learners to develop an understanding of mathematics and mathematical processes, whilst allowing them to develop their ability to reason logically and construct mathematical proofs. Students will be able to understand coherence and progression in mathematics and how different areas of mathematics can be connected.

Brief introduction:

Areas of study – what will I learn?

Pupils will study a variety of Mathematical concepts separated into 4 units;

C1/2 (Core Mathematics IAL)

Algebra and functions, coordinate geometry in the (x, y) , trigonometry, differentiation, Integration. Proof: algebra and functions, sequences and series, exponentials and logarithms and Binomial Theorem.

S1 (Statistics)

Mathematical models in probability and statistics, representation and summary of data, probability, correlation and regression, discrete random variables, discrete distributions and the Normal distribution.

C3/4 (Core Mathematics)

Algebra and functions, trigonometry, exponentials and logarithms, Numerical methods of Integration, Coordinate geometry in the (x, y) plane, sequences and Series, Calculus and vectors.

M1 (Mechanics)

Mathematical models in mechanics; vectors in mechanics; kinematics of a particle moving in a straight line; dynamics of a particle moving in a straight line or plane; statics of a particle; moments.

Course assessment – how will I be assessed?

- 100% examination, students will sit 4 papers (Calculators)

Paper 1 (AS)	Paper 2 (AS)	Paper 3 (A2)	Paper 4 (A2)
Externally assessed 2hours and 30minutes 30%	Externally assessed 1hour and 30minutes 20%	Externally assessed 2hours and 30minutes 30%	Externally assessed 1hour and 30minutes 25%

Where might the course take you?

Mathematics provides a good Mathematical foundation for all career paths, allowing pupils to develop their analytical skills, practical techniques, and knowledge application within the context of Mathematics. It can act as a very good foundation to pursue A level Mathematics, or as a standalone qualification. Students considering the field of mathematics, engineering and space research, medicine, financial mathematics and accounting should consider taking this course.

Subject contact: Mr. Rahul Kumar - rahul.kumar@rakacademy.org

Physics

Exam board and specification number – Edexcel International A Level YPH11 / AS XPH11

Who is this course suitable for and why choose it?

The content is relevant for learners who have achieved a GCSE in Physics and who want to study this subject at a higher level. The syllabus covers the major topics in physics, including mechanics, materials, waves, electricity, fields, thermodynamics, radiation, particles, oscillations and cosmology.

Brief introduction:

Areas of study – what will I learn?

The Edexcel International A Level Physics course is split into 6 units:

- Unit 1: Mechanics and Materials (IAS)
- Unit 2: Waves and Electricity (IAS)
- Unit 3: Practical Skills in Physics I (IAS)
- Unit 4: Further mechanics, Fields and Particles (IA2)
- Unit 5: Thermodynamics, Radiation, Oscillations and Cosmology (IA2)
- Unit 6: Practical Skills in Physics II (IA2)

Course assessment – how will I be assessed?

- Six externally assessed written examinations

AS Physics	A Level Physics
Unit 1: Mechanics and Materials 80marks / 1hr 30min / January & June Examinations 40% of IAS and 20% of IAL	Unit 4: Further Mechanics, Fields and Particles 90marks / 1hr 45min / January & June Examinations 40% of IA2 and 20% of IAL
Unit 2: Waves and Electricity 80marks / 1hr 30min / January & June Examinations 40% of IAS and 20% of IAL	Unit 5: Thermodynamics, Radiation, Oscillations and Cosmology 90marks / 1hr 45min / January & June Examinations 40% of IA2 and 20% of IAL
Unit 3: Practical Skills in Physics I 50marks / 1hr 20min / January & June Examinations 20% of IAS and 10% of IAL	Unit 6: Practical Skills in Physics II 50marks / 1hr 20min / January & June Examinations 20% of IA2 and 10% of IAL

Where might the course take you?

Physics provides a good scientific foundation for all career paths involving mathematics, material properties, and new technologies. Students considering the field of astronomy, engineering, material and new technology research, should consider taking this course.

Subject contact: Subject Leader – Mrs Marilla Wiggins - Marilla.Wiggins@rakacademy.org

Psychology

Exam board and specification number – AQA Psychology 7181/7182

Who is this course suitable for and why choose it?

Psychology has been defined as the science of mind and behaviour. Essentially, psychology is all about people. We are all amateur psychologists, every time we try and work out why someone acted the way they did or try to predict how someone might behave or react. Psychology tries to find answers to some of these questions by investigating them in a more scientific manner.

Brief introduction:

Areas of study – what will I learn?

Psychology is the rigorous and systematic study of mental processes and behaviour. It is a complex subject which draws on concepts, methods and understandings from a number of different disciplines. There is no single approach that would describe or explain mental processes and behaviour on its own as human beings are complex animals, with highly developed frontal lobes, cognitive abilities, involved social structures and cultures. The study of behaviour and mental processes requires a multidisciplinary approach and the use of a variety of research techniques whilst recognising that behaviour is not a static phenomenon, it is adaptive, and as the world, societies and challenges facing societies change, so does behaviour.

Course assessment – how will I be assessed?

- 100% examination, AS Students will sit 2 papers and A level will sit 3 papers.

Paper	Paper type	Final grade	Time
Paper 1: Introductory topics in psychology Topic 1: Social influence Topic 2: Memory Topic 3: Attachment	Year 1: External assessment: written exam: 72 marks in total Year 2: External assessment: written exam: 96 marks in total	Year 1- 50% Year 2- 33.3%	Year 1: 1 hour 30 minutes Year 2: 2 hours
Paper 2: Psychology in context Topic 1: Approaches in Psychology Topic 2: Psychopathology Topic 3: Research methods	Year 1: External assessment: written exam: 72 marks in total Year 2: External assessment: written exam: 96 marks in total	Year 1- 50% Year 2- 33.3%	Year 1: 1 hour 30 minutes Year 2: 2 hours
Paper 3: Paper 3: Issues and options in psychology Topic 1: Issues and debates Topic 2: Cognition and Development Topic 3: Schizophrenia Topic 4: Aggression	Year 2: External assessment: written exam: 96 marks in total	Year 2- 33.3%	Year 2: 2 hours

Where might the course take you?

Psychology is useful for any job that requires lots of interaction or an understanding of human behaviour and development. People with skills in psychology are sought after in business, management, teaching, research, social work and careers in medicine and healthcare.

Subject contact: Subject Leader – Ms Z Azam - Zakeya.Azam@rakacademy.org

Pathway 2

IB Diploma Programme



Biology

Business Studies

Chemistry

Computer Science

Design Technology

English Literature

French

Geography

History

Physics

Psychology

Islamic Studies*

Mathematics

Spanish

Visual Arts

Theory of Knowledge **

*Ministry of Education required courses in Grade 11 only

**Compulsory component of the International Baccalaureate.

Note:

Courses will run only if there is an uptake of 5 or more students.

Please contact the IBDP Coordinator if there are any questions:

Mr. George Heusner – george.heusner@rakacademy.org

Biology

Brief introduction:

Biology is the study of life. The vast diversity of species makes biology both an endless source of fascination and a considerable challenge. Biologists attempt to understand the living world at all levels from the micro to the macro using many different approaches and techniques. Biology is still a young science and great progress is expected in the 21st century. This progress is important at a time of growing pressure on the human population and the environment. By studying biology in the DP students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the sciences. Teachers provide students with opportunities to design investigations, collect data, develop manipulative skills, analyse results, collaborate with peers and evaluate and communicate their findings.

Areas of study – what will I learn?

Through the overarching theme of the nature of science, the aims of the DP biology course are to enable students to: appreciate scientific study and creativity within a global context through stimulating and challenging opportunities; acquire a body of knowledge, methods and techniques that characterize science and technology; apply and use a body of knowledge, methods and techniques that characterize science and technology; develop an ability to analyse, evaluate and synthesize scientific information; develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities; develop experimental and investigative scientific skills including the use of current technologies; develop and apply 21st century communication skills in the study of science; become critically aware, as global citizens, of the ethical implications of using science and technology; develop an appreciation of the possibilities and limitations of science and technology and develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

Course assessment:

It is the intention of this course that students are able to fulfill the following assessment objectives: 1. Demonstrate knowledge and understanding of: facts, concepts, and terminology, methodologies and techniques, communicating scientific information. 2. Apply: facts, concepts, and terminology, methodologies and techniques, methods of communicating scientific information. 3. Formulate, analyse and evaluate: hypotheses, research questions and predictions, methodologies and techniques, primary and secondary data, scientific explanations. 4. Demonstrate the appropriate research, experimental, and personal skills necessary to carry out insightful and ethical investigations.

Subject contact: Subject Leader – Mrs Marilla Wiggins -
Marilla.Wiggins@rakacademy.org

Business Management

Brief introduction:

The business management course is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyse, discuss and evaluate business activities at local, national and international levels. The course covers a range of organizations from all sectors, as well as the sociocultural and economic contexts in which those organizations operate. The course covers the key characteristics of business organization and environment, and the business functions of human resource management, finance and accounts, marketing and operations management. Through the exploration of six underpinning concepts (change, culture, ethics, globalization, innovation and strategy), the course allows students to develop a holistic understanding of today's complex and dynamic business environment.

Areas of study – what will I learn?

The aims of the business management course at HL and SL are to: encourage a holistic view of the world of business; empower students to think critically and strategically about individual and organizational behaviour; promote the importance of exploring business issues from different cultural perspectives; enable the student to appreciate the nature and significance of change in a local, regional and global context; promote awareness of the importance of environmental, social and ethical factors in the actions of individuals and organizations and develop an understanding of the importance of innovation in a business environment.

Course assessment:

1. Demonstrate knowledge and understanding of: • the business management tools, techniques and theories specified in the syllabus content • the six concepts that underpin the subject • real-world business problems, issues and decisions 2. Demonstrate application and analysis of: • knowledge and skills to a variety of real-world and fictional business situations • business decisions by explaining the issue(s) at stake, selecting and interpreting data, and applying appropriate tools, techniques, theories and concepts 3. Demonstrate synthesis and evaluation of: • business strategies and practices, showing evidence of critical thinking • business decisions, formulating recommendations 4. Demonstrate a variety of appropriate skills to: • produce well-structured written material using business terminology • select and use quantitative and qualitative business tools, techniques and methods • select and use business material, from a range of primary and secondary sources.

Subject contact: Mr Bassel Rayes- bassel.rayes@rakacademy.org

Computer Science

Brief introduction:

The IB DP computer science course requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate. The course, underpinned by conceptual thinking, draws on a wide spectrum of knowledge, and enables and empowers innovation, exploration and the acquisition of further knowledge. Students study how computer science interacts with and influences cultures, society and how individuals and societies behave, and the ethical issues involved.

Areas of study – what will I learn?

The aims of the computer science courses are to: provide opportunities for study and creativity within a global context that will stimulate and challenge students developing the skills necessary for independent and lifelong learning; provide a body of knowledge, methods and techniques that characterize computer science; enable students to apply and use a body of knowledge, methods and techniques that characterize computer science; demonstrate initiative in applying thinking skills critically to identify and resolve complex problems; engender an awareness of the need for, and the value of, effective collaboration and communication in resolving complex problems; develop logical and critical thinking as well as experimental, investigative and problem-solving skills; develop and apply the students' information and communication technology skills in the study of computer science to communicate information confidently and effectively; raise awareness of the moral, ethical, social, economic and environmental implications of using science and technology; develop an appreciation of the possibilities and limitations associated with continued developments in IT systems and computer science and encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method.

Course assessment:

Having followed the computer science higher level course, students will be expected to: 1. Know and understand: relevant facts and concepts, appropriate methods and techniques, computer science terminology, methods of presenting information. 2. Apply and use: relevant facts and concepts, relevant design methods and techniques, terminology to communicate effectively, appropriate communication methods to present information. 3. Construct, analyse, evaluate and formulate: success criteria, solution specifications including task outlines, designs and test plans, appropriate techniques within a specified solution. 4. Demonstrate the personal skills of cooperation and perseverance as well as appropriate technical skills for effective problem-solving in developing a specified product.

Subject contact: Subject Leader – Mr Loganathan, ezhilarasu.loganathan@rakacademy.org

Chemistry

Brief introduction:

Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. Chemical principles underpin both the physical environment in which we live and all biological systems. Chemistry is often a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science. Both theory and practical work should be undertaken by all students as they complement one another naturally, both in school and in the wider scientific community. The DP chemistry course allows students to develop a wide range of practical skills and to increase facility in the use of mathematics. It also allows students to develop interpersonal and information technology skills, which are essential to life in the 21st century.

Areas of study – what will I learn?

Through the overarching theme of the nature of science, the aims of the DP chemistry course are to enable students to: appreciate scientific study and creativity within a global context through stimulating and challenging opportunities; acquire a body of knowledge, methods and techniques that characterize science and technology; apply and use a body of knowledge, methods and techniques that characterize science and technology; develop an ability to analyse, evaluate and synthesize scientific information; develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities; develop experimental and investigative scientific skills including the use of current technologies; develop and apply 21st century communication skills in the study of science; become critically aware, as global citizens, of the ethical implications of using science and technology; develop an appreciation of the possibilities and limitations of science and technology and develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

Course assessment:

Studying this course, students should be able to fulfill the following assessment objectives: 1. Demonstrate knowledge and understanding of: facts, concepts, and terminology, methodologies and techniques, communicating scientific information. 2. Apply: facts, concepts, and terminology, methodologies and techniques, methods of communicating scientific information. 3. Formulate, analyse and evaluate: hypotheses, research questions and predictions, methodologies and techniques, primary and secondary data, scientific explanations. 4. Demonstrate the appropriate research, experimental, and personal skills necessary to carry out insightful and ethical investigations.

Subject contact: Subject Leader – Mrs Marilla Wiggins -
Marilla.Wiggins@rakacademy.org

Design Technology

Brief introduction:

The DP design technology course aims to develop internationally minded people whose enhanced understanding of design and the technological world can facilitate our shared guardianship of the planet and create a better world. Inquiry and problem-solving are at the heart of the subject. DP design technology requires the use of the design cycle as a tool, which provides the methodology used to structure the inquiry and analysis of problems, the development of feasible solutions, and the testing and evaluation of the solution. A solution can be defined as a model, prototype, product or system that students have developed independently.

Areas of study – what will I learn?

The aim of the DP design technology course is to enable students to develop: a sense of curiosity as they acquire the skills necessary for independent and lifelong learning and action through inquiry into the technological world around them; an ability to explore concepts, ideas and issues with personal, local and global significance to acquire in-depth knowledge and understanding of design and technology; initiative in applying thinking skills critically and creatively to identify and resolve complex social and technological problems through reasoned ethical decision-making; an ability to understand and express ideas confidently and creatively using a variety of communication techniques through collaboration with others; a propensity to act with integrity and honesty, and take responsibility for their own actions in designing technological solutions to problems.

Course assessment:

Design technology will be formally assessed either internally or externally. Wherever appropriate, the assessment draws upon environmental and technological contexts, and identifies the social, moral and economic effects of technology. It is the intention of the design technology course that students are able to fulfill the following assessment objectives: 1. Demonstrate knowledge and understanding of: facts, concepts, principles and terminology, design methodology and technology, methods of communicating and presenting technological information. 2. Apply and use: facts, concepts, principles and terminology, design methodology and technology, methods of communicating and presenting technological information. 3. Construct, analyse and evaluate: design briefs, problems, specifications and plans, methods, techniques and products, data, information and technological explanations. 4. Demonstrate the appropriate research, experimentation, modelling and personal skills necessary to carry out innovative, insightful, ethical and effective designing.

Subject contact: Mr Gaston Campbell – gaston.campbell@rakacademy.org

English Literature

Brief introduction:

The IB Diploma Programme language A: literature course develops understanding of the techniques involved in literary criticism and promotes the ability to form independent literary judgments. In language A: literature, the formal analysis of texts and wide coverage of a variety of literature—both in the language of the subject and in translated texts from other cultural domains—is combined with a study of the way literary conventions shape responses to texts.

Areas of study – what will I learn?

The aims of the language A: literature course at both higher and standard levels are to: encourage a personal appreciation of literature and develop an understanding of the techniques involved in literary criticism; develop the students' powers of expression, both in oral and written communication, and provide the opportunity of practising and developing the skills involved in writing and speaking in a variety of styles and situations; introduce students to a range of literary works of different periods, genres, styles and contexts; broaden the students' perspective through the study of works from other cultures and languages; introduce students to ways of approaching and studying literature, leading to the development of an understanding and appreciation of the relationships between different works; develop the ability to engage in close, detailed analysis of written text and promote in students an enjoyment of, and lifelong interest in, literature.

Course assessment:

Assessment for language A: The IB assesses student work as direct evidence of achievement against the stated goals of the Diploma Programme courses, which are to provide students with: a broad and balanced, yet academically demanding, programme of study the development of critical-thinking and reflective skills the development of research skills the development of independent learning skills the development of intercultural understanding a globally recognized university entrance qualification.

Students' success in the language A: literature higher/standard level course is measured by combining their grades on external and internal assessment.

Subject contact: Subject Leader – Jennifer Griffiths - jennifer.griffiths@rakacademy.org

Geography

Brief introduction:

Geography is a dynamic subject firmly grounded in the real world, and focuses on the interactions between individuals, societies and physical processes in both time and space. It seeks to identify trends and patterns in these interactions. It also investigates the way in which people adapt and respond to change, and evaluates actual and possible management strategies associated with such change. Geography describes and helps to explain the similarities and differences between different places, on a variety of scales and from different perspectives.

Areas of study – what will I learn?

The aims of the geography course at SL and HL are to enable students to: develop an understanding of the dynamic interrelationships between people, places, spaces and the environment at different scales; develop a critical awareness and consider complexity thinking in the context of the nexus of geographic issues, including: acquiring an in-depth understanding of how geographic issues, or wicked problems, have been shaped by powerful human and physical processes synthesizing diverse geographic knowledge in order to form viewpoints about how these issues could be resolved; understand and evaluate the need for planning and sustainable development through the management of resources at varying scales.

Course assessment:

There are four assessment objectives (AOs) for the SL and HL geography course: 1. Demonstrate knowledge and understanding of specified content between areas of film focus and film elements employed by the core theme 2. Demonstrate application and analysis of knowledge and understanding; apply and analyse geographic concepts and theories; identify and interpret geographic patterns and processes in unfamiliar information, data and cartographic material; demonstrate the extent to which theories and concepts are recognized and understood in particular contexts. 3. Demonstrate synthesis and evaluation: examine and evaluate geographic concepts, theories and perceptions; use geographic concepts and examples to formulate and present an argument; evaluate materials using methodology appropriate for geographic fieldwork and 4. Select, use and apply a variety of appropriate skills and techniques: select, use and apply: prescribed geographic skills in appropriate contexts techniques and skills appropriate to a geographic research question and produce well-structured written material, using appropriate terminology.

Subject contact: Ms A Philips – ashleigh.philips@rakacademy.org

History

Brief introduction:

The DP history course is a world history course based on a comparative and multi-perspective approach to history. 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 course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge.

Areas of study – what will I learn?

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

Course assessment:

There are four assessment objectives for the DP history course. 1. Knowledge and understanding: Demonstrate detailed, relevant and accurate historical knowledge, demonstrate understanding of historical concepts and context, demonstrate understanding of historical sources. 2. Application and analysis: formulate clear and coherent arguments, use relevant historical knowledge to effectively support analysis, analyse and interpret a variety of sources. 3. Synthesis and evaluation: integrate evidence and analysis to produce a coherent response, evaluate different perspectives on historical issues and events, and integrate this evaluation effectively into a response, evaluate sources as historical evidence, recognizing their value and limitations, synthesize information from a selection of relevant sources. 4. Use and application of appropriate skills: structure and develop focused essays that respond effectively to the demands of a question, reflect on the methods used by, and challenges facing, the historian, formulate an appropriate, focused question to guide a historical inquiry, demonstrate evidence of research skills, organization, reference and selection of appropriate sources.

Subject contact: Mr M Groenewald - marc.groenewald@rakacademy.org

Mathematics

Brief introduction:

To develop curiosity and happiness regarding mathematics, and value its style and capacity to build up a comprehension of the ideas, standards and nature of arithmetic to impart math deeply, compactly and certainly in an assortment of settings to create sensible and inventive reasoning, tolerance and steadiness in critical thinking to ingrain trust in utilizing math. To acknowledge how advancements in innovation and arithmetic impact one another

The content of maths requires all students to engage with the five topics at either SL or HL: number and algebra, functions and modelling, geometry and trigonometry, statistics and probability, and differential and integral calculus. Maths offers key concepts which weave a conceptual thread through the topics allowing students to make links through and between topics in their chosen mathematics course, and to other subjects being studied within the IB Diploma Programme. Both subjects will prepare students with the mathematics needed for a range of further educational courses corresponding to the two domains of mathematics. Students must choose one of the strands at either standard or higher level.

Areas of study – what will I learn?

Mathematics: analysis and approaches

Students will explore real and abstract applications of these ideas, with and without technology. This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics.

Course assessment:

All students must sit externally-assessed examination papers to assess their knowledge and understanding of the content. These challenging papers at both SL and HL emphasise problem-solving and require students to answer a number of short and long open-response questions. HL students in both courses also complete a third paper in which they address two extended problem-solving activities with the use of technology.

Mathematics: analysis and approaches students all take one paper which does not require technology.

Subject contact: Mr Rahul Kumar - rahul.kumar@rakacademy.org

Physics

Brief introduction:

Physics is the most fundamental of the experimental sciences as it seeks to explain the universe itself, from the very smallest particles to the vast distances between galaxies. Despite the exciting and extraordinary development of ideas throughout the history of physics, observations remain essential to the very core of the subject. Models are developed to try to understand observations, and these themselves can become theories that attempt to explain the observations. Besides helping us better understand the natural world, physics gives us the ability to alter our environments. This raises the issue of the impact of physics on society, the moral and ethical dilemmas, and the social, economic and environmental implications of the work of physicists.

Areas of study – what will I learn?

Through the overarching theme of the nature of science, the aims of the DP physics course are to enable students to: appreciate scientific study and creativity within a global context through stimulating and challenging opportunities; acquire a body of knowledge, methods and techniques that characterize science and technology; apply and use a body of knowledge, methods and techniques that characterize science and technology; develop an ability to analyse, evaluate and synthesize scientific information; develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities; develop experimental and investigative scientific skills including the use of current technologies; develop and apply 21st century communication skills in the study of science; become critically aware, as global citizens, of the ethical implications of using science and technology; develop an appreciation of the possibilities and limitations of science and technology and develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

Course assessment:

It is the intention of this course that students are able to fulfill the following assessment objectives: 1. Demonstrate knowledge and understanding of: facts, concepts, and terminology, methodologies and techniques, communicating scientific information. 2. Apply: facts, concepts, and terminology, methodologies and techniques, methods of communicating scientific information. 3. Formulate, analyse and evaluate: hypotheses, research questions and predictions, methodologies and techniques, primary and secondary data, scientific explanations. 4. Demonstrate the appropriate research, experimental, and personal skills necessary to carry out insightful and ethical investigations.

Subject contact: Subject Leader – Mrs Marilla Wiggins -
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Psychology

Brief introduction:

The IB Diploma Programme psychology course aims to develop an awareness of how research findings can be applied to better understand human behaviour and how ethical practices are upheld in psychological inquiry. Students learn to understand the biological, cognitive and sociocultural influences on human behaviour and explore alternative explanations of behaviour. They also understand and use diverse methods of psychological inquiry.

Areas of study – what will I learn?

The course is designed to: encourage the systematic and critical study of human experience and behaviour and environments; develop the capacity to identify, analyse critically and evaluate theories, concepts and arguments about the nature and activities of the individual and society; enable students to collect, describe and analyse data used in studies of behaviour ; test hypotheses; and interpret complex data and source material; enable students to recognize that the content and methodologies are contestable and that their study requires the toleration of uncertainty; develop an awareness of how psychological research can be applied for better understanding of human behaviour; ensure that ethical practices are upheld in psychological inquiry; develop an understanding of the biological, cognitive and sociocultural influences on human behaviour; develop an understanding of alternative explanations of behaviour and understand and use diverse methods of psychological inquiry.

Course assessment:

The assessments aim to test all students' knowledge and understanding of key concepts through various activities that demonstrate:

- knowledge and comprehension of specified content, research methods, theories, such as key concepts, biological, cognitive and sociocultural levels of analysis
- application and analysis, including using psychological research and psychological concepts to formulate an argument in response to a specific question
- synthesis and evaluation of psychological theories, empirical studies, and research methods used to investigate behaviour
- selection and use of skills appropriate to psychology, the acquisition of knowledge, skills required for experimental design, data collection and presentation, data analysis and interpretation
- data analysis using an appropriate inferential statistical test and write an organized response.

Students' success in the psychology higher level course is measured by combining their grades on external and internal assessment.

Subject contact: Ms Z Azam, zakeya.azam@rakacademy.org

Spanish & French – ab initio*

Ab initio - brief introduction:

The IB DP language ab initio course is 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 language ab initio course develops students' linguistic abilities through the development of receptive, productive and interactive skills by providing them opportunities to respond and interact appropriately in a defined range of everyday situations. Language ab initio is available at standard level only.

Areas of study – what will I learn?

The aims of the language ab initio course are to: develop students' intercultural understanding enable students to understand and use the language they have studied in a range of contexts and for a variety of purposes encourage, through the study of texts and through social interaction, an awareness and appreciation of the different perspectives of people from other cultures develop students' awareness of the role of language in relation to other areas of knowledge develop students' awareness of the relationship between the languages and cultures with which they are familiar provide students with a basis for further study, work and leisure through the use of an additional language provide the opportunity for enjoyment, creativity and intellectual stimulation through knowledge of an additional language.

Course assessment:

Having followed the language ab initio standard level course, students will be assessed on their ability to: demonstrate an awareness and understanding of the intercultural elements related to the prescribed topics; communicate clearly and effectively in a range of situations; understand and use accurately the basic structures of the language; understand and use an appropriate range of vocabulary and use a register and a format that are appropriate to the situation.

**students who have taken the subject at IGCSE or have previous contact with the language cannot take ab initio for any language offered*

Subject contact: Subject Leader – Ms.Jakeya Khanom - jakeya.khanom@rakacademy.org

Spanish & French – Language B

Language B - brief introduction:

The IB DP language B course provides students with the opportunity to acquire or develop an additional language and to promote an understanding of other cultures through the study of language. Language B is designed for students who possess a degree of knowledge and experience in the target language. High performing standard level students should be able to follow university courses in other disciplines in the language B that is studied.

Areas of study – what will I learn?

The aims of the language B standard level course are to: develop students' intercultural understanding; enable students to understand and use the language they have studied in a range of contexts and for a variety of purposes; encourage, through the study of texts and social interaction, an awareness and appreciation of the different perspectives of people from other cultures; develop students' awareness of the role of language in relation to other areas of knowledge; develop students' awareness of the relationship between the languages and cultures with which they are familiar; provide students with a basis for further study, work and leisure through the use of an additional language and provide the opportunity for enjoyment, creativity and intellectual stimulation through knowledge of an additional language.

Course assessment:

The assessments aim to test all students' ability to understand and use the language of study as well as key concepts through: learning a language by engaging with its use and meaning within a social framework and by developing receptive, productive and interactive skills in the language of study.

Students will be assessed on their ability to: communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding; use language appropriate to a range of interpersonal and/or cultural contexts; understand and use language to express and respond to a range of ideas with accuracy and fluency; organize ideas on a range of topics, in a clear, coherent and convincing manner and understand, analyse and respond to a range of written and spoken texts.

Subject contact: Subject Leader – Ms.Jakeya Khanom - jakeya.khanom@rakacademy.org

Visual Art

Brief introduction:

The IB Diploma Programme visual arts course encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.

Areas of study – what will I learn?

The aims of the arts subjects are to enable students to: enjoy lifelong engagement with the arts; become informed, reflective and critical practitioners in the arts; understand the dynamic and changing nature of the arts; explore and value the diversity of the arts across time, place and cultures; express ideas with confidence and competence; develop perceptual and analytical skills; to make artwork that is influenced by personal and cultural contexts; become informed and critical observers and makers of visual culture and media and develop skills, techniques and processes in order to communicate concepts and ideas.

Course assessment:

Students are expected to:

1. Demonstrate knowledge and understanding of specified content: identify various contexts in which the visual arts can be created and presented.
2. Demonstrate application and analysis of knowledge and understanding: express concepts, ideas and meaning through visual communication, analyse artworks from a variety of different contexts.
3. Demonstrate synthesis and evaluation: critically analyse and discuss artworks created by themselves and others and articulate an informed personal response, evaluate how and why art-making evolves and justify the choices made in their own visual practice.
4. Select, use and apply a variety of appropriate skills and techniques: demonstrate technical proficiency in the use and application of skills, techniques, media, images, forms and processes and produce a body of resolved and unresolved artworks as appropriate to intentions

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