



# DOLLAR ACADEMY

## FORM VI Units and Modules 2020/2021

This part of the booklet gives details of the Units which may be available in August. Modules will only run if there is sufficient demand, and if suitable resources are available.

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## **MANDARIN (Certificated) – 3 or 5 hours per week**

In this option, pupils will gain basic language skills, sufficient for survival, a foundation in this fascinating language. As well as learning about Chinese culture, pupils can work towards elementary HSK certification. HSK is China's only standardized test of Chinese language proficiency for non-native speakers. It certifies the possession of Chinese language skills when applying for a job in China. It also fulfils admission requirements when applying to different types of schools at various levels in China. It is also one of the requirements for applying for scholarship and grants for a gap year in China. The option of working towards a N5 or Higher can also be considered.

## **SPANISH – BEGINNERS**

This is a five-hour ab-initio course which aims to have pupils crash National 5 Spanish in a year. It is open to pupils in FV and FVI, but the typical candidates have been Sixth Formers who have already passed a national exam in French or German, know what is involved, and are therefore clear about course structure and exam requirements. In reality, almost all pupils who have opted for this course have, early on, raised their sights beyond National 5 and gone for the Higher; in the great majority of cases, with resounding success.

## **ITALIAN – BEGINNERS**

The intention of this three-hour module is to teach the language to complete beginners. The emphasis will be communication – understanding and being understood in the beautiful language of a beautiful country. That said, dedicated learners will have the option of taking an SQA qualification at the end of the year; pupils have in the last three years achieved National 5, and even Higher, from a standing start.

If interest is forthcoming, the focus of the module will be “A Visit to Florence”. There will be an Art and Design Exchange visit there in late March 2021. Form VI Art pupils going on that trip might welcome the opportunity to acquire the Italian they would want to know for their stay. And, we hope, pupils not doing Art might take up the Italian Module and apply to do the exchange for linguistic reasons.

## **A LANGUAGE SURVIVAL GUIDE**

The intention of this 1-hour per week module is to teach language to complete beginners. The focus will be language required when visiting the country or having a conversation with a native speaker. Communication is key! This can be offered in French, German, Spanish, Italian or Mandarin, dependent on forthcoming interest.

## **LANGUAGE AMBASSADORS**

This offers the opportunity to Form VI pupils to use their language skills in a variety of ways. It is designed for those pupils doing an AH in a language or those who have gained a Higher in Form V and want to continue to use their skills. Pupils can assist in language lessons with Juniors and Form I, offer homework support, organise language events e.g. the European Day of Languages . . . the list is endless and Form VI pupils can bring their own ideas. This is a ideal way to add to your leadership skills.

## ANCIENT GREEK

Ancient Greek takes us on a linguistic adventure like no other. This module provides an introduction to the language of some of the world's greatest writers, such as Herodotus, Plato and Sophocles, as well as insights into the roots of our own language. The focus of the class is on grammar and translation, providing the opportunity to read the ancient authors in their own words and explore the culture which produced these works of literature. Assessment will take the form of two adapted passages of Greek for translation.

## PHILOSOPHY

*What is Knowledge? How can we prove we exist? Do we have free will? What is it to be moral? Can war ever be justified?*

Have you ever thought about these questions?

The central aim of this course is to encourage pupils to develop philosophical methods of enquiry applicable to a range of contexts, encourage critical thinking and expose pupils to several key philosophical ideas.

In the first term the class will focus on different aspects of Moral Philosophy and the different philosophical approaches to such ethical questions as Punishment, Euthanasia and War. The ideas of Immanuel Kant and J.S.Mill will be examined and their relative strengths and weaknesses estimated.

Further study will take account of the areas of Epistemology, where the problems of Induction and Scepticism will be introduced, the ideas of Rene Descartes examined. A study of Metaphysics, where the existence of God and the "Mind-Body" problem will be undertaken alongside the central question of Free Will, bringing the course to an end. Films such as "The Matrix" and "Blade Runner" will be used to illustrate particular philosophical theories and to indicate just how profound the impact of philosophical ideas has been on popular culture.

The class is discussion based but there will be opportunities for pupils to undertake several written assignments throughout the session.

## ECONOMICS FOR NON-ECONOMISTS

This one period module is designed for those pupils who have not studied Economics before or for those pupils who have not continued it on from National 5 in Form IV.

In this module we read about and informally discuss the most significant current economic issues of the day - for example, Universal Basic Income, the Housing Crisis and Income Inequality.

If you want to be well informed and able to more than hold your own in social circles then this is the module for you. It can be tailored towards the particular interests of participants. There is no written work and no formal examinations.

## **DIGITAL LITERACY**

### **ENTRY REQUIREMENT: At the discretion of the department**

The course enables pupils to develop an advanced level of competence in digital literacy, using a range of software packages, which they will need for life, learning and work. In particular, this course will equip pupils with practical IT skills, which will aid them with their Advanced Higher dissertations and University level report writing.

The course will be delivered over 1 to 2 hours per week. It will include keyboarding skills; practice and technique in communicating information through interviews and presentations; working with reports including: referencing, researching, formal writing styles, table of contents, footnotes and endnotes etc. There will be time and guidance provided to transfer skills developed in this module to Advanced Higher dissertations required from other areas of the curriculum. The module culminates with an insight into useful spreadsheet tools used to improve analysis, present information and ultimately save time for users.

For further information and a full course outline please contact the Business Education Department.

## **European Computer Driving License (ECDL)**

The European Computer Driving Licence (ECDL) is an internationally recognised IT qualification which enables people to demonstrate their competence in computer skills. The ECDL syllabus is designed to cover key IT concepts, and practical applications of computers and their use in the workplace and society. It can be used to clearly indicate to universities and potential employers that a certain level of IT competence has been achieved.

It is broken down into seven modules which may be taken in any order and over any period of time up to three years. All modules must be passed before an ECDL certificate is awarded. They are:

1. IT security for users
2. Using the computer and managing files
3. Word processing
4. Spreadsheets
5. Databases
6. Presentations
7. Using email and the internet

The Course is skills-based and will be timetabled for one period a week. Pupils will start at different levels depending on their existing IT skills and ability, and can work at their own pace, with the goal of achieving the full qualification by the end of Form VI. They are able to build on the IT skills they developed in Forms III and IV and some pupils entering Form VI have only one or two more modules to complete in order to obtain full certification.

## **CYBER SECURITY**

This course is an exploration of the underpinnings of computer operating systems, networks and the internet; examining how they work, where they can go wrong, and what steps can be taken to ensure that they don't.

The three key themes permeating the course are: Data Security, Ethical Hacking and Digital Forensics.

The course encourages learners to improve their cyber hygiene and resilience, and enable them to identify security vulnerabilities safely, legally and ethically. It will also help learners to contribute more safely to virtual communities.

We will aim to ensure that you have opportunity to apply what you will learn within controlled ("sand-boxed") computing environments at school.

## **ONLINE LEARNING**

A great invention of the modern age is online learning and many university courses are free and can be accessed via a tablet or mobile device. Universities are particularly impressed by students who read well and who undertake deeper learning beyond the traditional examination syllabi and this is true of all courses. It might also help you to confirm what it is you are particularly interested in studying. There are lots of courses out there but we suggest as a starting point the sites below which offer a range of interesting courses across many disciplines from Language & Culture to Business & Management; Science & Technology to Health & Psychology.:

<https://www.coursera.org/browse> and

<https://www.futurelearn.com/>

Meet educators from top universities and cultural institutions, who'll share their experience through videos, articles, quizzes and discussions. You would likely need to set aside two free periods of your choosing in order to take part in this – see Mrs Miller for more information.

## **ADDITIONAL MATHEMATICS**

This course is designed primarily for those pupils who are wishing to apply to a University for a course which will involve a Mathematics-based entrance test (all Sciences, Engineering and Maths based courses). It will cover those topics which may appear on the tests and which are currently outside the Scottish Mathematics Curriculum.

Pupils will be given the opportunity to enhance their problem-solving skills in order to prepare themselves for the STEP papers, in the case of application to Oxbridge, and other entrance papers as required.

## **MUSIC THEORY and AURAL**

This is an option for any pupils sitting ABRSM Music exams who need Grade 5 theory to progress to higher grades. It is also an opportunity for any pupils would benefit from sessions on the aural element of ABRSM or Trinity exams. In addition, any pupils who are considering a higher education music course could select this option if they would like to work on audition material or any other additional practice or preparation

## **HOME ECONOMICS (Cookery Skills)**

Learning how to cook healthily on a budget is a vital life skills and ideal preparation for student life. Each week a new recipe is made which allows pupils to develop their confidence, practical and organisational skills in the kitchen.

Pupils are also offered the opportunity to achieve the REHIS (Royal Environmental Health Institute of Scotland) Intermediate Cookery Skills and Intermediate Food Hygiene Awards.

A recipe booklet is issued to all participants of the course.

## **VOLUNTEERING (EUROPEAN SCIENCE PROJECT)**

This module is suitable for anyone with an interest in working with people (e.g. in teaching, social work, medicine etc.) or in volunteering. It could also be relevant for pupils with an interest in I.T. or Science. No previous knowledge or experience is required as all training will be provided.

Pupils will spend the timetabled one hour per week researching practicals for UK & European primary schools. The focus will be on designing resource packs and lesson plans that could be used to support remote learning as well as face-to-face teaching. This may include recording experiments and hopefully, when covid19 allows, practical trials with local primary pupils to test run our materials. The goal is to run a workshop involving primary teachers in Scotland and possibly across Europe. A meeting in Croatia or Belgium in the Spring of 2021 may be possible again depending on covid19.

Interested pupils should contact Dr Payne for further information.

## **INFORMATION TECHNOLOGY (EUROPEAN SCIENCE PROJECT)**

The module enables pupils to develop a range of digital skills through applied, project based learning using various software packages and technologies. The module will be delivered in 1 hour per week.

Pupils will take part in the European Science Project by offering technical support, IT expertise towards design, advertising and packaging as well as coordinating and communicating with pupils in European partner schools in Belgium, Spain and Croatia.

For further information please contact the Business Education Department.

## **ASTRONOMY (2 periods per week)**

No prior knowledge of Astronomy or Physics is necessary to take the Astronomy module. In recent years, some pupils who have chosen Astronomy have done so purely for interest but the course also caters for pupils who wish to further their knowledge in preparation for study of the physical sciences at university; the Astronomy module has very broad appeal. We use the GCSE Astronomy course as a framework and pupils can opt to take the exam if they so wish.

The topics we study include:

### Earth, Moon and Sun

- Planet Earth
- The Moon
- The Sun
- Earth-Moon-Sun interactions

### Planetary Systems

- Our Solar System
- Comets and Meteors
- Solar System Discoveries
- Exoplanets

### Stars

- Constellations
- Observing the Night Sky
- Physical Properties of Stars
- Evolution of Stars

### Galaxies and Cosmology

- Our Galaxy – the Milky Way
- Galaxies
- Cosmology

Astronomy is a practical subject so there will also be practical activities such as night time viewing sessions, safely observing the sun, performing simple astronomical experiments to help understand the earth, moon and sun better etc. You will learn how to make astronomical observations using the naked eye (unaided observations) and also with astronomical equipment (aided observations) such as binoculars, cameras and telescopes (both manual and robotic). We have access to telescopes around the world which we can operate using the internet to produce images such as the one below of the stunning Sombrero Galaxy. For those opting to take the GCSE Astronomy qualification, the assessment comprises a written report on two practical activities (one aided and one unaided) as well as a written exam.



## **MEDICAL PHYSICS**

This is a module based upon material from the A-level Physics syllabus. It would be useful for those who wish to go on to study Medicine or Physics at University, or for anyone with a general interest in the subject. As well as classroom based activities, trips to the Medical Physics department at Ninewells Hospital in Dundee and Radiography Department at Forth Valley Hospital in Larbert will be organised. You will get a chance to learn and experience the cutting edge of applied physics which may well give you an advantage when it comes to your university interview.

## **BIOLOGY FOR MEDICAL SCIENCE**

Pupils planning to study Medicine, Dentistry or Veterinary Medicine at University have the opportunity to take this modular course, which involves two hours of study per week. The aim of the course is to allow pupils to explore topics relevant to medical science in more detail than the syllabus allows. Typical topics studied include immunology, cancer, CVD, diabetes, drug production, drug testing, aging and the NHS. There will also be the opportunity to practice relevant interview technique.

## **PSYCHOLOGY**

### **ENTRY REQUIREMENT - None**

This course is offered to Form VI pupils with an interest in Psychology – the study of the mind. It runs for two hours per week and introduces pupils to the main domains of Psychology. In addition, pupils have the opportunity to pass a Higher Psychology Unit on “Individual Behaviour” through the study of sleep, dreams and sleep disorders.

## **MICROBIOLOGY: THEORY and LAB SKILLS**

**ENTRY REQUIREMENT – none, although a background in Biology would be expected.**

### **COURSE STRUCTURE – 2hrs per week**

This module aims to equip pupils with the skills necessary to work in laboratories in further education and beyond. Practical work makes up a large part of this course and pupils will learn techniques such as sub-culturing methods, enumerating microorganisms and investigating antibiotic resistance. There is opportunity for pupils apply the skill they learn by undertaking a Gold Crest award.

## **SQA HIGHER FASHION & TEXTILE TECHNOLOGY**

A new format of learning part-based online, part-based in school art studio (3 lessons in school, 1 hr at home) this course is experimental and practical with opportunities to learn about the fashion industry and develop and communicate your own ideas for fashion design. Using research methods including, photography, collage, textile printing, fashion drawing, sewing and fashion construction skills, pupils will style and make their own concepts. With mainstream brands just beginning to scratch the surface of addressing sustainability through clothing this course also looks at environmental issues in the fashion world. Develop a design and make it while looking at issues of sustainability in fashion.

## **PRACTICAL CRAFT SKILLS**

This course is suitable for pupils who wish to develop their manual dexterity, spatial awareness, tenacity and creativity whilst learning both traditional and contemporary craft skills. Through the use of a variety of media, including wood, metal and acrylic, pupils will get the opportunity to design and create unique artefacts. From the traditional wood-turning lathe to the state of the art laser cutter, a broad array of projects will be offered.

This module offers pupils the opportunity to design and manufacture an electric guitar.

## **ROBOTICS**

This module will allow pupils to develop their practical electronics and then use this knowledge in the creation of a range of robotic systems. With problem-solving, creativity and team-working to the fore, pupils will develop their practical robotic skills to meet a range of different challenges. It will give pupils the chance to investigate, experiment, design and create solutions to problems whilst looking externally at how robotics is integrated into all our lives. This module also offers the opportunity for interested pupils to become involved in a range of national and international robotics challenges and competitions.

## **SCOTTISH BACCALAUREATE IN EXPRESSIVE ARTS, LANGUAGES, SCIENCE & SOCIAL SCIENCES**

The Scottish Baccalaureate (Scot Bacc) in Expressive Arts, Languages, Science and Social Sciences a group Award comprised of several Highers and Advanced Highers from a pupil's portfolio of qualifications. of current Higher and Advanced Higher qualifications in their respective areas. But what makes a Scottish Baccalaureate unique is the **Interdisciplinary Project (IDP)**.

### **The Interdisciplinary Project (IDP)**

Have you got an idea that you would like to explore in more depth? Would you like to see how your subject knowledge could be used in real-life? How about the opportunity to understand how all the subjects that you study can fit together to create something valuable? Undertaking the Interdisciplinary Project will enable you to do these things - and so much more besides.

The IDP is an independent research project that is carried out by a pupil or group of pupils. From the initial idea; through to the planning, execution and delivery of the final output this is pupil driven and is designed to develop skills that are valuable at University and beyond. As part of this, you will develop, and exemplify skills such as collaboration, problem-solving,

communication, negotiation, independent learning, critical thinking and analysis. The IDP can provide you with a wealth of evidence to show that you have deepened your understanding of the area that you wish to study further at University as you will be pursuing a research area of your choice.

The final output of your project will be whatever you determined as being appropriate during your project planning stage. This may well be a report, but is just as likely to be a leaflet, poster, event, YouTube video or app; whatever is the best way for you to communicate your findings to the relevant audience.

In terms of UCAS points, the IDP is equivalent to half an Advanced Higher.

Further information, and examples of projects, can be found on the SQA website;  
<https://www.sqa.org.uk/sqa/34638.1567.html>