



FUTURE HORIZONS

Beechen Cliff Future Horizons Programme

Term 6 Newsletter

Dear Students and Parents,

As with the previous recent editions of the Future Horizons newsletter, this term's focus is again on online talks, lectures and webinars which will enhance our students' learning beyond the curriculum. As we are thinking more and more about Post-18 options, now more than ever is the time to pursue passions for a particular subject or to engage in more events to demonstrate an interest in an area for any potential applications for university courses or jobs.

Please look back at the previous newsletter as there are still some events from last term's edition which are happening over the following months. I have included in this newsletter any new events which have been advertised since, along with reminders of useful websites.

Remember to make sure you make a quick note of the names or topics of any talks you watch so that you can recall them at a later date if you wish to write about them in a personal statement or mention them in an interview.

Instructions and guidance for university applications will continue to be sent out in the Weekly Briefing document. Please also remember to look back through the Future Horizons Student Guide for information on other Post-18 choices such as apprenticeships, jobs and gap years.

Yours sincerely,

Kim Mather

UCAS and Future Horizons Lead

Useful websites

HE Plus – www.myheplus.com

Thinking about applying to University and looking for ways to explore your subject beyond the curriculum? Then this website is for you. Cambridge University postgraduates and academics at the cutting edge of research in their field produce topics, guided activities, questions to think about and suggestions for reading.

Explore – www.explore.org

This is an innovative digital outreach portal from the University of Oxford. As the 'Home of Big Questions' it aims to engage those from 11 to 18 years with debates and ideas that go beyond what is covered in the school classroom. Big questions tackle complex ideas across a wide range of subjects and draw on the latest research.

Open Access Journals

Due to the current period, many websites have made their e-resources freely available throughout June to support teaching, learning and research. Examples of these include JSTOR, Bloomsbury, British Online Archives, Cambridge University Press, Oxford University Press, MIT Press, SAGE, Statista, Wiley and many more.

Youtube EDU

YouTube's #Education channel has thousands of educational videos, including those from partners like Stanford, and TED-Ed. Use YouTube EDU to find short lessons to watch full courses from the world's leading universities, professional development material, and inspiring videos from global thought leaders.

TED talks

TED talks are short videos created from a presentation at the main TED (technology, entertainment, design) conference or one of its many satellite events around the world. Over the years, presenters of TED talks have included Al Gore, Bill Clinton, Bill Gates, Bono, Jane Goodall, Malcolm Gladwell, Gordon Brown, Richard Dawkins, Mike Rowe, Larry Page, Sergey Brin and Vint Cerf.

University podcasts

Podcasts of academic lectures are increasingly available – start with iTunesU or search for podcasts on University websites. Examples of university podcasts include:

www.podcasts.ox.ac.uk/

www.bath.ac.uk/podcast/

www.birmingham.ac.uk/news/podcasts/index.aspx

www.warwick.ac.uk/newsandevents/podcasts/media

www.mypodcasts.manchester.ac.uk/

Subject-Related Opportunities

English

English Literature and Climate Change

In this webinar for sixth form students, Dr Neal Alexander from Aberystwyth University will, through discussion exercises and Q&A, explore the following: Imagining climate change, Language and the politics of climate change Literature and the Anthropocene, Causes and effects: some literary examples, and Literature and the non-human. This entertaining yet challenging interactive session aims to enhance students' awareness of the ways in which literature can influence and direct the ways in which we think and talk about climate change. It also encourages students to reflect critically upon the dominant vocabularies, images, and metaphors in the media and popular discourse. Finally, it hopes to raise some key ethical, political, and aesthetic questions concerning the representation of climate change, its causes, and its effects. Sign up by visiting

<https://www.channeltalent.co.uk/event/english-literature-english-literature-and-climate-change-with-dr-neal-alexander-from-aberystwyth-university/>

Penshurst Place and the Sidney Family of Writers

In this Lancaster University Future Learn course, you can uncover the literary history of the famous Penshurst Place, the 16th Century home of the Sidney family of writers and poets. The family, including Lady Mary Wroth and her uncle Sir Philip Sidney, wrote poetry and prose that still appeal to audiences today. On this course, you will be introduced to Penshurst Place, the Sidney family, and their famous works. You will learn how Lady Mary Wroth and Mary Sidney paved the way for female authors in Elizabethan England. You will also review Wroth's drama 'Love's Victory', which was reenacted and filmed at Penshurst Place in September 2018. Visit <https://www.futurelearn.com/courses/sidneys-of-penshurst>

Modern Languages

Interpreting for Refugees: Contexts, Practices and Ethics

On this course, you'll discover the role of the interpreter and explore the specific challenges of interpreting for refugees. You'll cover topics like cultural awareness, ethics and emotional reflexivity when working in situations that require cross-cultural communication. You'll consider the different work contexts you may be in as an interpreter for refugees, and learn the importance of your own wellbeing as well as your duty of care to the people you're working with. Visit the Future Learn website for more information:

<https://www.futurelearn.com/courses/interpreting-for-refugees>

Fall in Love with Mandarin

This Future Learn course gives you the opportunity to learn everyday Chinese Mandarin and discover Taiwanese culture. This course will introduce you to the fundamentals of everyday Mandarin, teaching you basic vocabulary for a range of everyday situations such as making introductions and ordering food. The course is delivered by May Wen, a

Mandarin teacher in National Chiao Tung University in Taiwan. Visit <https://www.futurelearn.com/courses/fall-in-love-with-mandarin> to learn more.

Bristol University Languages Lecture Series

This series of video lectures covers topics that are currently taught at the University of Bristol as part of a Modern Languages degree, which combines both language and cultural modules. These videos are relevant for A-Level students doing French, Spanish or German, as well as related subjects in the arts, humanities and social sciences, such as English Literature, History, Geography, Politics, Sociology, and Philosophy and Religion. In addition to the videos you will have access to texts and questions expanding on ideas that the videos introduce. In the latest video Dr. Sally-Ann Kitts will explain how 'No Pasarán' became a symbol of resistance during the Spanish Civil War. Access these by signing up for the exclusive University of Bristol virtual content by clicking on the form at the bottom of this page: <http://www.bristol.ac.uk/study/outreach/virtual-resources-for-students/faculty-content/>

Humanities

Global Challenges in a Changing World

This Geography Taster Day by Royal Holloway University will be held online and feature video lectures from members of the Geography department covering themes including: Climate Change, Glaciers, Political and Development Geography, and the Geohumanities. In addition, the taster day will be built around a student video competition Geography research video challenge: "How can geography address a major issue facing society?" students to work in teams to produce short (5min) research video to address this question they can choose the issue or the scale from local to global. The University will be supporting the competition and taster day with the addition of online resources. Find out more by visiting <https://www.royalholloway.ac.uk/studying-here/schools-and-colleges/activities-by-subject/geography/>

Time For Geography Website

Visit www.timeforgeography.co.uk for free access geography educational videos. There are videos on a huge range of topics such as climate change, tectonics, cities and resource management. This is a partner organisation to a lot of top universities across the country so the videos are well worth watching. There are also resources on 'Future Opportunities' and 'Geography Careers' which give insight into studying geography as a Post-18 option and where the subject can take you.

The Philosophy of Knowledge

This series of three short videos offers an introduction to the philosophical analysis of the notions of "philosophy", "knowledge", and "science". These three concepts are explored in an interactive way, with the aim of not only encouraging you to reflect on these notions, but also to give you a taste of some of the ways in which analytical philosophers set out to solve

conceptual and empirical problems. Access these by signing up for the exclusive University of Bristol virtual content by clicking on the form at the bottom of this page:

<http://www.bristol.ac.uk/study/outreach/virtual-resources-for-students/faculty-content/>

The Crisis of the Meritocracy

In this webinar historian Professor Peter Mandler will share research from his forthcoming book on Britain's transition to mass education since the Second World War. This lecture is part of the Historical Association webinar series and is titled: 'The crisis of the meritocracy: how popular demand (not politicians) made Britain into a mass education society. Sign up for this event by visiting <https://www.eventbrite.co.uk/e/ha-webinar-the-crisis-of-the-meritocracy-registration-102267027432?aff=ebdssbonlinesearch>.

Glasgow University History Subject Summer Reading

Due to covid-19 restrictions, many of us have had travel and life plans disrupted. One silver lining is that this may create more time for enjoyable reading. In these posts, Glasgow University History Department make suggestions of the books that have inspired them and, in some cases, inspired their different historical approaches. Many of the book suggestions in these lists are works of fiction rather than history. Fiction can be important for going beyond what certain types of historical sources tell us. For example, the 'rock star economist' Thomas Piketty, in his monumental *Capital in the Twenty-First Century*, analysed vast amounts of economic data to transform our understanding of the historical trajectory of capitalism and inequality, but he began with reference to the literary work of Austen and Balzac to expand understanding beyond the economic sources. Visit the Glasgow University website for a complete list of suggestions:

<https://www.gla.ac.uk/schools/humanities/research/historyresearch/welcome/>

Panic-Buying During Crisis: How do Food Supply Chains Cope?

Sign up to this Future Learn course by Queen's University Belfast to explore contingency plans for ensuring food security during COVID-19 in Europe. Movement restrictions imposed due to the coronavirus are leading to an increase in food stockpiling, and there are concerns the agri-food supply chain won't keep up with demand. On this course, you'll learn how the pandemic is challenging food supply chains and explore the steps taken by the industry to ensure food security and integrity. You'll discover the complexity of the agri-food supply chains and understand its co-dependency with other sectors such as transportation and packaging. You'll also hear from companies making a difference with innovative digital food services and solutions. Visit:

<https://www.futurelearn.com/courses/understanding-food-supply-chains>

Social Innovation in Rural Areas

On this Future Learn course, you'll learn what social innovation is, how it can best be supported and where innovation efforts should be concentrated. You'll specifically focus on the challenges facing rural areas. You'll be introduced to a range of approaches for actioning social innovation initiatives as you explore the role of communities and society in innovation development. Using global case-studies, you'll analyse new approaches proposed by 26 partners involved in the EU H2020 research project, SIMRA. You'll explore the findings of the project, led by the project partners themselves. Visit

<https://www.futurelearn.com/courses/social-innovation-in-rural-areas>.

Royal Geographical Society Lectures

The RGS have made a huge number of their past lectures available free to non-members. There are a mixture of videos and audio recordings on a huge range of topics from animal reintroductions to global oceans. Visit <https://www.rgs.org/geography/online-lectures/?categories=FreeToView>

Social Sciences

Don't Forget About Brexit

There will be a number of lectures delivered throughout the week 15th - 19th June by Exeter University on the topic of Brexit. These are aimed at sixth form students and will be delivered through Exeter's 'Discover University' Facebook page.

The Economics of Climate Change – Externalities & Policy Response

In this Economics webinar aimed at sixth form students, Professor Mike Christie from Aberystwyth University's Business School will discuss economic theory to discuss: (i) the externality impacts of climate change, and (ii) the national / international policy responses to tackle climate change. This webinar is targeted to support AS / A Level Economic specifications, including Market failure, Externalities, Government intervention, Policy instruments and Global economics. Visit <https://www.channeltalent.co.uk/event/economics-the-economics-of-climate-change-externalities-policy-response-with-professor-mike-christie-from-aberystwyth-university/> to sign up.

Cryptocurrency and Blockchain Explained

The sudden rise in the value of Bitcoin (and its subsequent decline) focused the world's attention on using cryptocurrencies for payment. Blockchain technology powers Bitcoin and has been hyped as the next new, transformative technology. On this course by the University of Michigan, you will uncover the technology that underpins blockchain and review its key concepts, such as decentralization and consensus algorithms. You will assess and critique blockchain as an asset, and review the dynamics of the cryptocurrency markets. You will also explore the use of blockchain as a business solution. Visit the Future Learn site:

<https://www.futurelearn.com/courses/blockchain-cryptocurrencies>.

Mathematics

Survival Statistics: Secrets for Demystifying Numbers

Is it safe to eat red meat? How seriously should you take the latest opinion poll on an upcoming election? We are constantly bombarded with information on what we can and

can't do based on statistics. Your ability to answer and respond to statistical questions can affect your health, happiness, job, and understanding of the world around you. On this course by Royal Holloway University, you will learn to understand statistical claims so you can make more rational decisions. You will also learn how to answer hard numerical questions and use approximations to calculate the risk of chance. Sign up to this online course by visiting: <https://www.futurelearn.com/courses/survival-statistics-secrets-for-demystifying-numbers/2>

Science

IUCN Red List of Ecosystems: The Global Standard for Assessing Risks to Ecosystems

Learn how the Red List of Ecosystems is helping to sustain global biodiversity with this Future Learn course. Nature is under threat around the world. Understanding where ecosystems are at greatest risk allows us to act to sustain species and ecosystems. The IUCN (International Union for Conservation of Nature) Red List of Ecosystems is a rigorous standardised assessment method that supports decision making while generating strategies for policy and management practice. The Red List of Ecosystems is the global standard for ecosystem risk assessment, used by governments, NGOs, scientists and practitioners to sustain biodiversity worldwide. This is very relevant to the A Level Biology course! Visit:

<https://www.futurelearn.com/courses/global-standard-for-assessing-risks-to-ecosystems>

Life as a Dental Student

Undergraduate Dental students Sadia, Amrish and Sadie tell you all about life as a Dental Student at Bristol University, why they are passionate about a future dental career, and how it's not all work and no play. Access this by signing up for the exclusive University of Bristol virtual content by clicking on the form at the bottom of this page:

<http://www.bristol.ac.uk/study/outreach/virtual-resources-for-students/faculty-content/>

What Impact Can Public Health Policy Have on the Obesity Crisis?

In this series of three short lectures, Maria Jesus Vega Salas discusses the contribution that public policy makers can make to reducing obesity in a country's population. In this first part, she uses data to show how health-related issues affect different populations at different rates and shows that there are systemic reasons for these differences. The next two sessions look at how public policy can have a major impact on the behaviour of people, which makes them more or less likely to be obese, and then use a framework to assess the effectiveness of different policy responses to the obesity crisis. Access these by signing up for the exclusive University of Bristol virtual content by clicking on the form at the bottom of this page:

<http://www.bristol.ac.uk/study/outreach/virtual-resources-for-students/faculty-content/>

Understanding Biological Energy

This Future Learn course by Royal Holloway University is an introduction to energy and explore how humans and other living things obtain and use their biological energy sources. On this course, you'll learn what energy actually is and how living things acquire and convert it. You'll find out how biological energy is stored and released in fossil fuels and what advances in agriculture mean for feeding the world's growing population. As you explore biological energy in industry, you'll consider the ways science can help us to reduce our reliance on fossil fuels as well as ways we might use and learn from plants to provide energy in the future. You'll also discover the concept of 'energy overload' and how it is threatening our bodies' energy balance today. To sign up for free, visit <https://www.futurelearn.com/courses/biological-energy/2>

Cardiovascular Physiology and Platelet Involvement in Coronavirus

This 4-part lecture series will show you the different courses available within Life Sciences before focusing in on Physiology. It aims to explain the fundamentals of the cardiovascular system before looking specifically at platelets and their involvement in some serious symptoms of Coronavirus. You will gain an insight into the critical research that is taking place right now within this field in a bid to better understand the physiological impact of the disease and how Pharmacological research can help lead to effective medical treatments. Access these lectures by signing up for the exclusive University of Bristol virtual content by clicking on the form at the bottom of this page: <http://www.bristol.ac.uk/study/outreach/virtual-resources-for-students/faculty-content/>

An Introduction to Medical Ethics

Ethics play an important role in healthcare, and need to be considered by health professionals and patients alike. On this FutureLearn course, you will get a practical introduction to ethics, and develop the reasoning skills needed to deal with ethical questions. You will build your understanding of these issues by examining the ethics of prenatal screening for disabilities, like Down Syndrome and deafness. You will also gain an introduction to bioethics and the development of medical technologies to use in health services. Sign up by visiting <https://www.futurelearn.com/courses/practical-ethics-screening-for-and-against-disability>

Bacterial Genomes: Antimicrobial Resistance in Bacterial Pathogens

Explore the challenges of AMR and learn how experts work to address them. AMR is a public health emergency. Global projections predict the loss of nearly 10 million lives and up to \$100 trillion lost in global production by 2050. According to the United Nations and the WHO, AMR requires immediate international action. On this course, you will explore the historical and epidemiological aspects of antibiotics and AMR, and recognise its clinical significance. You will explore the role of genomics in tackling AMR from research,

diagnostic and surveillance perspectives, as well as the principles and practice of AMR Quality Assurance. Visit: <https://www.futurelearn.com/courses/antimicrobial-resistance>

Why Biology Matters: The Genome and You

By exploring genomes, we can develop a more detailed biological understanding of ourselves. This course focuses on building your knowledge of the genome, including concepts of genetic inheritance and how traits are transmitted from one generation to the next. You will learn the type of information the genome provides and the social and philosophical implications of genomes in the future. Visit the Future Learn website to sign up: <https://www.futurelearn.com/courses/biology-genome-and-you>

Pharmacy, Pharmacology and the Exciting World of Drug Discovery

Do you have a passion for chemistry and biology? Do you want to use your scientific knowledge to help others, providing patient centred care or making the medicines of the future? Pharmacy and Pharmacology are both great options, but how do you choose between the two? In this session, lecturer Rosemary Norton from the University of East Anglia will tell you more about these exciting courses, highlight the key differences and answer any questions you may have. Visit: <https://www.channeltalent.co.uk/event/stem-pharmacy-pharmacology-the-exciting-world-of-drug-discovery-with-rosemary-norton-at-university-of-east-anglia/>

Technology

Introduction to Physical Computing

In this Future Learn course by the Institute of Coding, you can explore how microcontrollers are changing our everyday lives and why the future of tech innovation lies in physical computing. You'll explore the anatomy of physical computing and debate the ethical considerations of physical computing applications. You'll also explore the creative uses of this technology and follow the careers of people working in the physical computing industry. Find out more by visiting www.futurelearn.com/courses/an-introduction-to-physical-computing

Using Soft Robots To Grow Human Tissues

Wouldn't it be great if we could grow organs in the lab so that we don't rely on organ donations when we need a transplant? Growing organs in the lab is tricky because they need to experience the forces generated by our body's movements to develop properly. Recreating these forces in the lab is difficult. This is where soft robots can help! They can recreate the body's movements so that tissues experience the forces they need. In this lecture you will discover how we can grow skin on soft robots to make better quality skin tissue to treat burns and wounds. Access this by signing up for the exclusive University of Bristol

virtual content by clicking on the form at the bottom of this page:

<http://www.bristol.ac.uk/study/outreach/virtual-resources-for-students/faculty-content/>

Applications of AI Technology

Learn how AI technology is influencing four key areas: intelligent systems, medtech, deep learning, and sustainable fishing. This free online course explores fascinating examples of how artificial intelligence is shaping our future. You'll focus on one area each week, starting with intelligent systems, where you'll explore neural networks, genetic algorithms and particle swarm optimization. In week two, you'll consider the use of machine learning for finding clinical data patterns for forecasting models. You'll discover deep learning in week three, as you learn how self-flying drones are trained using VR. On the final week of the course, you'll explore fisheries management, and learn how AI can keep ocean fisheries sustainable. Sign up for this course by visiting

<https://www.futurelearn.com/courses/artificial-intelligence-technology-application>

Raising Capital: Credit Tech, Coin Offerings, and Crowdfunding

Learn how technology is transforming raising capital for business with the University of Michigan's innovative financing course. Advances in technology have both systematized and democratized consumers' and business' access to capital. On this course, you will explore the ways in which technology has transformed access to consumer credit and access to seed capital for business projects. You will examine disruptive technologies in credit scoring, raising capital through tokenization, and the evolution of crowdfunding for both debt and equity financing. You will also learn how to differentiate between crypto-based capital-raising models. Visit <https://www.futurelearn.com/courses/raising-capital>.

Introduction to Creative AI

Discover the use of AI in the creative industries using practical examples by signing up to this course by the Institute of Coding. Machine learning is transforming the creative world, in terms of how creative work is both made and consumed. It's a burgeoning area, with many potential career opportunities. On this course, you'll learn exactly what the creative industries are, and the ways they're being changed by AI. You'll identify the latest developments in machine learning, as well as the skills you need to get ahead in creative computing. Throughout, you'll examine practical examples of creative AI from creative technologists, artists, media creators, and researchers working at the cutting-edge of the field. Visit the Future Learn website for more information and to sign up:

<https://www.futurelearn.com/courses/introduction-to-creative-ai>