UCL Blockchain Executive Education Evening Programme 2019

A unique programme for business strategists, innovators, futurists and public sector planners to gain a rigorous understanding of the impact of Distributed Ledger Technologies on industry and society, both today and in the future.

This executive education and networking programme, running for the second time, runs over eight weeks in London between May and July 2019. Instruction is provided by international thought-leaders and leading academics.

UCL CBT

Blockchains—Transformative Technology or Not?

Blockchain pilots are now being successfully completed by corporations both in the finance sector and beyond[1]. Investment continues to rise reaching over $22.5 billion since the inception of blockchain[2]. This nascent technology is expected to transform mainstream practices in finance, supply chain and logistics, IOT, cybersecurity and government.

- Today, does implementing blockchain technologies create benefits and what are the risks in doing so?
- Will these transformative technologies live up to the hype and early accolades?
- How can blockchains be deployed practically alongside other emerging technologies?

Understanding how new technologies will impact industries in the near future can be a challenge. Educational materials are often too superficial or overly-technical and do not provide the specific details required by leaders to make informed decisions. This course balances strategic concepts and relevant technical concepts to guide leaders on appropriate adoption of disruptive technologies.

1- CBInsights 2 - Coin Desk

Introducing the UCL Blockchain Executive Education Evening Programme

The University College London (UCL) Blockchain programme brings the world-renowned expertise of the UCL Centre for Blockchain Technologies (CBT), together with the foremost thinkers in blockchain technologies globally.

- Instruction by global thought leaders and academics
- Unique executive collaboration and networking experience
- Hybrid learning model: Foundational knowledge taught online, core knowledge taught during eight evening in-person classroom sessions, one blockchain coding workshop and networking event
- Innovative learning through the UCLeXtend platform—enabling you to access content and watch lectures online at any time to strengthen understanding of concepts

This programme delivers a comprehensive experience for executives to gain an understanding of Distributed Ledger Technologies (DLT), applications to industry and the public sector, and future implications for our society.

Our goal is an intensive programme in blockchain literacy. You interact with academics at the cutting edge of research on technical, business and legal aspects of blockchain-based systems that inform strategic thinking and public policy. In addition, you will be immersed in a curated network of expert practitioners pioneering these technologies at the frontline.

There are optional coding workshops and key opportunities to work and network with peers at various stages of adopting blockchain-related technologies across a range of sectors.

Cost:
£4,500 (early bird discounts available off this price)*

Length:
Eight Evenings Sessions + One Coding Workshop + Blockchain Networking Events Over Eight Weeks

When:
Tuesday Evenings Between 21 May 2019 and 9 July 2019

Where:
London, UK

*Please see our website for current pricing and scheduling information

The Value This Programme Delivers To You

- A comprehensive understanding of blockchains through a unique framework that equips you to analyse the technologies and assess their business, economic, legal and regulatory implications
- The information to guide your organisation through the necessary changes involving the adoption and deployment of new potentially disruptive distributed technologies like blockchain and how to overcome obstacles and hindrances
- The ability to assess the opportunities and challenges that blockchains (in conjunction with other emerging technologies as well) may generate for your industry or those in your supply chain
- Outstanding executive collaboration and networking experience with a community of highly regarded academics, guest speakers and interested peers
- Access to the UCL CBT and their associates, including the latest research, newsletters and events, both during and after the programme
- Blockchain Coding Workshop plus two networking events where you can interact with blockchain companies and blockchain practitioners
- UCL Certificate of Participation that can be used to evidence Continuing Professional Development (CPD) hours

Who Should Take This Programme?

This programme is aimed at business leaders, innovators, technologists, regulators and public policy makers who need to quickly gain a fundamental understanding of blockchains including both the opportunities and risks. It is primarily managerial in nature, with optional technical and simulation sessions for those who wish to explore the underlying nature of blockchains in more depth.

This course is most suited to those in managerial, executive, senior and director-level positions, who have a keen interest in understanding how to evaluate the opportunities, challenges, and innovation potential of disruptive blockchain-based business models from multiple viewpoints.

It is also suitable for those who wish to develop links with the UCL CBT to collaborate on joint research or applied contract work.

Ultimately, this programme is suitable for anyone looking to future-proof their careers with skills and knowledge that will be in demand in the short to medium term.

"We stand on the brink of a fourth industrial revolution, which will fundamentally alter the way we live, work, and relate to one another. New technologies are dramatically transforming our economic systems, and our society in general, into something very different from what we were used to thinking about over the last few decades"

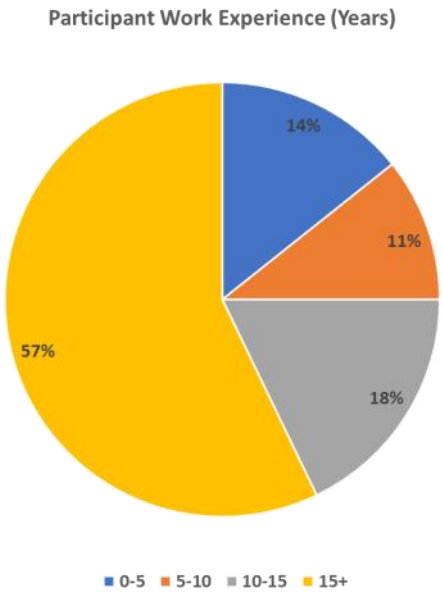
Dr Paolo Tasca, Course Convenor

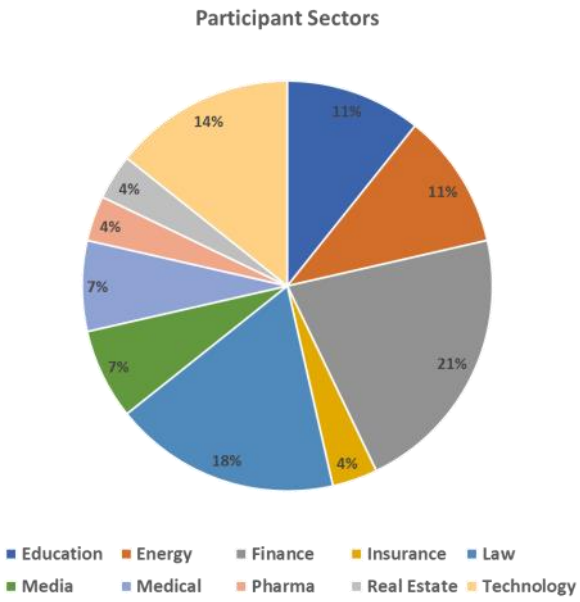
Course Participants & Feedback

Course participants on our programmes come from a variety of sectors and with diverse work experiences.

The median work experience of participants is greater than 15 years.

The following charts show the breakdown of participants based on their work experience and what sectors they have come from.





Feedback from previous programmes includes:

- *"A thoroughly enjoyable course—I now read blockchain use cases with a different sense"*
- *"High quality speakers + content"*
- *"A good introduction to DLT"*
- *"Great delivery, structure, content and friendly/supportive delivery team"*

What You Will Learn

This course is designed to provide you with a framework for evaluating blockchains, both through their use of technology and business applications and from a legal and regulatory perspective.

The programme will primarily be taught in-person by academics and practitioners to give a balance between theory and current real-world applications. There will also be supplementary materials made available online to complement classroom learning. All lectures are recorded to enable learners to revisit and strengthen concepts they are studying.

The following outlines the main areas of teaching on the programme and over the eight evening sessions, optional coding workshop and networking events.

Pre - Course Preparatory Material

Before embarking on the eight evening course, we present online material to help you build basic foundational knowledge to help you get the most out of your time with global blockchain thought leaders.

Part 1 - The Technology Behind Blockchains & Distributed Ledgers

In the first part of this course, you learn about the underlying elements of what makes up a distributed ledger and the history behind blockchains. How do distributed ledgers differ from existing technologies available? What are the benefits they bring? How many different distributed ledgers exist? How can we distinguish good ones from bad ones?

You will also learn about different blockchain applications, including:

- **Cryptocurrencies and Tokens**
- **Asset Registry Technologies**
- **Application Stacks**
- **Asset Centric Technologies**
- **Smart Contracts (including DApps and DAOs)**

At the end of this initial module, you will be well-versed in the various technologies that underpin blockchains and how these translate into their uses in industry.

Part 2 - The Economic Implications and Business Applications of Blockchains

In the second part of the course, we examine the economics of blockchains, business cases in different industries and socio-economic implications.

We map out the different blockchain industry segments, study the dynamics of investments in blockchain-related businesses and both the disruption created as well as the challenges and risks of adoption. Enterprise blockchain solutions and how companies are thinking about and implementing projects will be covered. We also cover how blockchain technologies interface with other emerging technologies such as Artificial Intelligence.

We also examine the monetary and macroeconomics of cryptocurrencies and the use cases of smart contracts. We examine how the ICOs, DAOs and Token economies are evolving and where they fit in today's world.

At the end of the second part of this course, you will understand what the trajectory of blockchain applications may be in various industries and the opportunities and risks they may present.

Part 3 - The Legal/Regulatory Implications of Blockchains

In the final section, you learn about the legal and regulatory challenges faced with adopting blockchains and smart contracts, as well as regulation of cryptocurrencies. In particular, we look at differences in the regulation of ICOs/ DAOs and how security, debt, payment and utility tokens differ from a regulatory and legal perspective across different jurisdictions.

We examine the evolving nature of regulation in blockchain use and how blockchains can be used to streamline regulation and compliance (RegTech). With the support of real uses cases, you learn how these technologies can be used for continuous auditing, AML/KYC verification, or automated tax filing.

Part 4 - Real World Case Studies

Equipped with an underlying framework of technological, economic and legal aspects of blockchains, you will then look at real-world case studies of blockchains to discover how blockchains can be applied or not in your own industry and how transformative business models can be created.

Blockchain Coding Workshop (Optional)

To give you a practical feel of what it means to work with blockchain technology we provide you with a coding workshop where you can learn to code simple DLT applications. You will be able to understand the structure and behaviour of simple Ethereum based Smart Contracts and the structure of a DApp.

Networking Events (Optional)

Our goal is not only to equip you with the knowledge to tackle disruptive blockchain technologies, but also to make the connections with practitioners and blockchain companies that you can collaborate with. We provide networking events where you can get to know your peers and lecturers and meet emerging blockchain companies and blockchain practitioners.

Course Details

The UCL Blockchain Executive Education Evening Programme maximises interaction between course lecturers, practitioners and participants.

Engaging learning experiences create long-lasting partnerships. We offer a classroom-based in-person learning environment with limited class sizes and 1-1 support where needed.

To maximise time spent with lecturers, we place foundational learning materials online so we can cover more complex materials in the classroom. Learners are supported by having access to the the UCLeXtend online learning system, where all learning materials are available and all lectures are recorded, such that you can easily cover material you missed or want to revisit.

This course consists of eight weeks of core teaching with optional events arranged around this period. It is based at UCL's campus in London, UK. Sessions begin at 18:30 and aim to finish at 21:30 once a week.

The typical timetable for learning will be:

18:30 — Arrival

18:45 — 1st Teaching Session

20:15 — Break

20:30 — 2nd Teaching Session

21:30 — Optional Networking with Lecturers, Guest Speakers and Fellow Participants

22:00 — Session Ends

Course Dates

This course will occur every Tuesday evening between 21 May 2019 and 9 July 2019. These dates are:

21 May 28 May 4 June 11 June 18 June 25 June 2 July 9 July

Networking events and Blockchain Coding workshops will be arranged around the core teaching period.

Course Cost

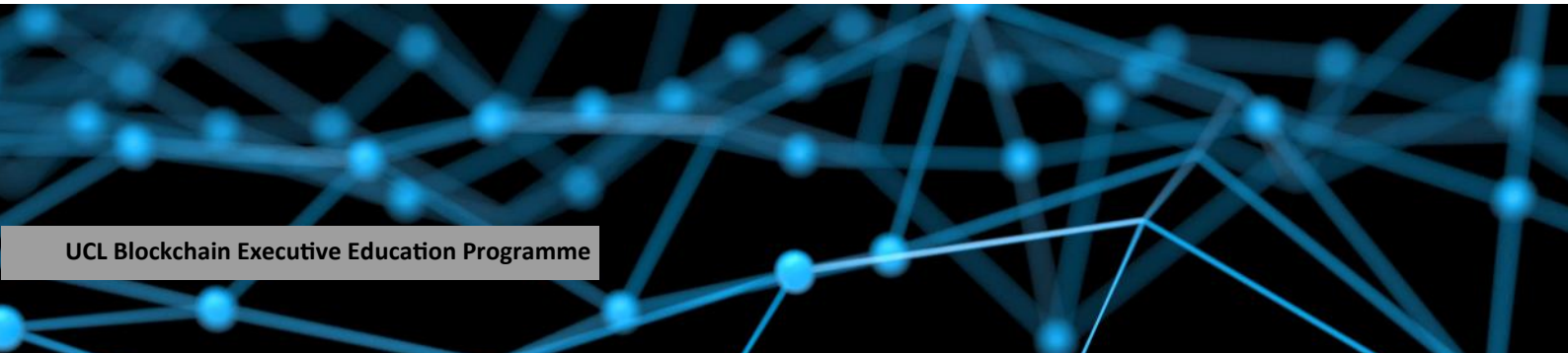
This course costs £4,500. For the latest pricing information including early bird discounted offers, please visit our website.

Course Accreditation

UCL provides a certificate of attendance on completion of the course which evidences Continuing Professional Development (CPD) hours (for those who achieve more than 80% attendance of core sessions).

Course Requirements

- No prior knowledge of blockchains is required to take this course
- Most beneficial for mid to senior level managers in organisations looking to explore blockchain applications for their industries
- Outside of classroom time, expect 2-4 hours of extra work required per week



Who You Will Learn From

Your Convenor — Your subject matter expert who has guided the design of this programme

Dr Paolo Tasca is a Digital Economist specialising in P2P financial systems. An advisor on blockchain technologies for different tech companies and international organisations including the EU Parliament and the United Nations, Paolo is the founder and Executive Director of the UCL CBT. Previously, he was Lead Economist on digital currencies and P2P financial systems at the Deutsche Bundesbank. He is also an entrepreneur and inventor of several blockchain-related technologies including Overledger.

Your Instructors — Global experts who will share their experiences and in-depth subject knowledge of the core elements of the programme

Prof. Tomaso Aste is Professor of complexity science at UCL Computer Science. He has substantially contributed to research in financial systems modelling, complex data analytics and machine learning. He is passionate in the investigation of the effect of technologies on society, and currently, focuses on the application of blockchain technologies to domains beyond digital currencies. He is the principal investigator for the largest UK project on blockchain for automatic regulation and compliance. He is Scientific Director of the UCL CBT; Head of the Financial Computing and Analytics Group and Member of the Board of the ESRC LSE-UCL Systemic Risk Centre.

Dr Geoffrey Goodell is a research fellow at UCL and Deputy Executive Director of the UCL CBT. He is also an entrepreneur and portfolio manager with a decade of experience in the financial industry. He has previously worked for Goldman Sachs and was Partner and Chief Investment Officer of Phase Capital, an asset management firm. He has a PhD in computer science from Harvard University. His research is concerned with decentralized systems, digital currencies, institutions, and regulation.

Dr Alastair Moore is a computer scientist with experience in AI/ML, UX design, marketplaces, mobile, early-stage tech and blockchain innovation. He also founded UCL spin-out Satalia.com and venture-backed Wearepopup.com. Most recently he has been involved in helping design and administer innovation programmes at IDEALondon and UCL's School of Management. His areas include innovation in business models for 5G networked environments; scale-up support programmes for SMEs requiring Big Data/Analytics expertise and the commercialisation of smart cities using Sematic Web technology. He also works with Mishcon de Reya implementing AI and blockchain technologies in the legal world.

Prof. Ioannis Lianos is an expert in competition law and policy. He holds the chair of global competition law and public policy at UCL and a Gutenberg Research chair at the Ecole Nationale d'Administration. Professor Lianos has worked with the European Court of Justice, the European Commission and the Federal Trade Commission and has advised several governments and private parties in the areas of competition law and good governance. He is also the Executive Director of the Jevons Institute for Competition Law and Economics.

Mr Nikhil Vadgama is the Deputy Director of the UCL CBT and orchestrated the world's first accredited Blockchain Executive Education Programme. He is also a Lecturer in Financial Technology at the UCL School of Management. His experience has spanned multiple sectors including Education, Real Estate and FinTech. Most recently he has been involved in commercialisation of academic research in the AI and Blockchain domains. He was previously an Investment Banker with HSBC. Nikhil has an MBA from INSEAD, an MPhys from Oxford University and has passed all three levels of the CFA programme.

Prof. Claudio Tessone is an Assistant Professor at the University of Zurich. He is an expert in the modelling of economic, social and technical systems from a quantitative and interdisciplinary perspective. His research focuses on blockchain and Bitcoin, specifically in the economic and technical aspects of these ground-breaking technologies: Emergent economic patterns, apparent and hidden incentive schemes, the design of new systems, and the design of decentralised, scalable architectures.

Your Blockchain Practitioners — They will provide you with their frontline experiences of the practicalities of implementing blockchains in industry

We are currently securing a line of up of blockchain industry practitioners to teach on our forthcoming evening programme. As soon as we have confirmations from these individuals we will update you. As an example, some of the individuals who have taught in our previous programmes include:

Mr Henning Diedrich is the founder and CEO of the Lexon Foundation. He was the first architect of Hyperledger at IBM and served as a Director for blockchain at the Boston Consulting Group, Digital Ventures. For the European Commission, Henning lead a small, global posse of core crypto devs giving advice about what is and what isn't possible in regtech using smart contracts. Henning also led the technical architecting of DeBeer's blockchain supply chain solution for the diamond industry with data protection.

Dr Julio Faura is the CEO of Adhara and was the former Head of R&D (Blockchain) at Santander. He led their activities around crypto-currencies, blockchain and distributed ledgers, running internal technical labs where he built innovative blockchain-based products and services, led collaboration with other leading banks in the space, leading the creation and participating in industry consortia, and regularly speaking at relevant industry forums. He is the chairman of the Enterprise Ethereum Alliance, the chairman of Spain's Alastria network, and a member of the board of the Wall Street Blockchain Alliance.

Mr Richard Brown is the CTO at R3 and is one of the world's leading authorities on distributed ledger systems and architectures. Previously Richard was Executive Architect for Banking and Financial Markets industry innovation at IBM UK. His previous roles with the company, for whom he worked for almost fifteen years, included Lead Account Architect for a global Investment Banking client and a consultant for IBM software products. Richard is a Chartered Engineer, holds an MBA from Warwick Business School and a degree in Mathematics from Cambridge.

Mr Peter Todd is an Applied Cryptography Consultant and a core developer for the Bitcoin protocol. He has worked on prooftrains and treechains, with permissionless development, decentralized mining, and scalability. He is the maintainer of the python-bitcoinlib and OpenTimestamps projects. He has worked with numerous blockchain companies including, Coinkite, Dark Wallet, MasterCoin and Verisart. He is known for working towards improving security and stability in bitcoin without compromising decentralisation.

Mr Lars Schlichting is an expert in the regulatory and legal aspects of blockchains and has advised numerous clients including crypto funds, crypto exchanges and several ICOs. He is currently CEO of Eidoo Group, a Multicurrency Wallet and Hybrid Exchange, and a Partner at Kellerhals-Carrard, a Global Law firm. He has also previously been a Partner at KPMG Switzerland, advising on banking and finance, and worked as an Attorney for the Swiss Federal Banking Commission.

Dr Daniel Heller is a fintech and digital currency expert. In 2017, he was a visiting fellow at the Peterson Institute for International Economics in Washington where he published widely on the impact of emerging digital technologies such as blockchain on the financial sector, financial stability, and central banking. Before joining the Institute, he was Head of Financial Stability at the Swiss National Bank, Head of the Secretariat of the Committee on Payment and Settlement Systems at the Bank for International Settlements, and Executive Director for Switzerland, Poland, Serbia, Azerbaijan, and four Central Asian republics at the International Monetary Fund.

About the UCL Centre for Blockchain Technologies

The UCL CBT is the first centre globally to actively focus on blockchain related research on the adoption and integration of Blockchain and Distributed Ledger Technologies into our socio-economic system.

The unique characteristics of the CBT at UCL provides a cross-sectoral platform connecting expertise and drawing knowledge from eight UCL departments centrally in one place. The CBT is a centre of excellence fostering open dialogue between industry players and sharing expertise and resources. It is a neutral think tank providing consultancy services to industry members, dedicated knowledge-transfer activities and cutting-edge in-house solutions.

For engagement outside of the academic world, the CBT's activities have been tailored to industry and policymakers' needs. The UCL CBT draws on its world-leading academic expertise to produce blockchain solutions for industry, start-ups and regulators. With a community of over 150 Research & Industry Affiliates and Industry Partners, it is the largest Academic Blockchain Centre in the world.

Notable Work

Ripple

The UCL CBT joined the "University Blockchain Research Initiative" founded by Ripple (a multinational Blockchain Company) to provide academic research, technical development and innovation in blockchain, cryptocurrency and digital payments. UCL was one of 12 institutions selected (including MIT, Princeton, Berkeley etc) and the only University from the UK.

BARAC

The CBT is leading the Blockchain Technology for Algorithmic Regulation and Compliance (BARAC) project. This is the largest publicly funded blockchain project aimed at the public sector that will be defining feasibility guidelines to policymakers, industry and regulators by identifying problems and associated solutions with a bottom-up approach, built through case studies and proof of concept platforms. For this project, the CBT is partnering with the Financial Conduct Authority, Singapore Monetary Authority, Cyprus Securities and Exchange Commission and financial groups like Banco Santander and R3, and FinTech companies like Lykke, Aesthetic Integration and Advanced Technology Solutions.

RSCoin

Several members of the CBT have teamed up with the Bank of England to develop a hybrid cryptocurrency, called RSCoin, which combines the benefits of distributed ledger technologies with the centralized control of traditional currencies. RSCoin can process approximately 2000 transactions per second—compared to 7 transactions per second that Bitcoin can process at the same time. Further, each individual transaction usually clears within a second—compared to the minutes that it takes for transactions in traditional cryptocurrencies to clear.

United Nations

The CBT is also partnering with the United Nations on a social protection initiative on digital identity. Many of the state of the art digital identity systems require centralised control points vulnerable to abuse by powerful third parties. Decentralised architectures can be deployed to address important human rights violations including privacy and economic empowerment among local businesses and cooperatives and their beneficiaries throughout the developing world.

About UCL

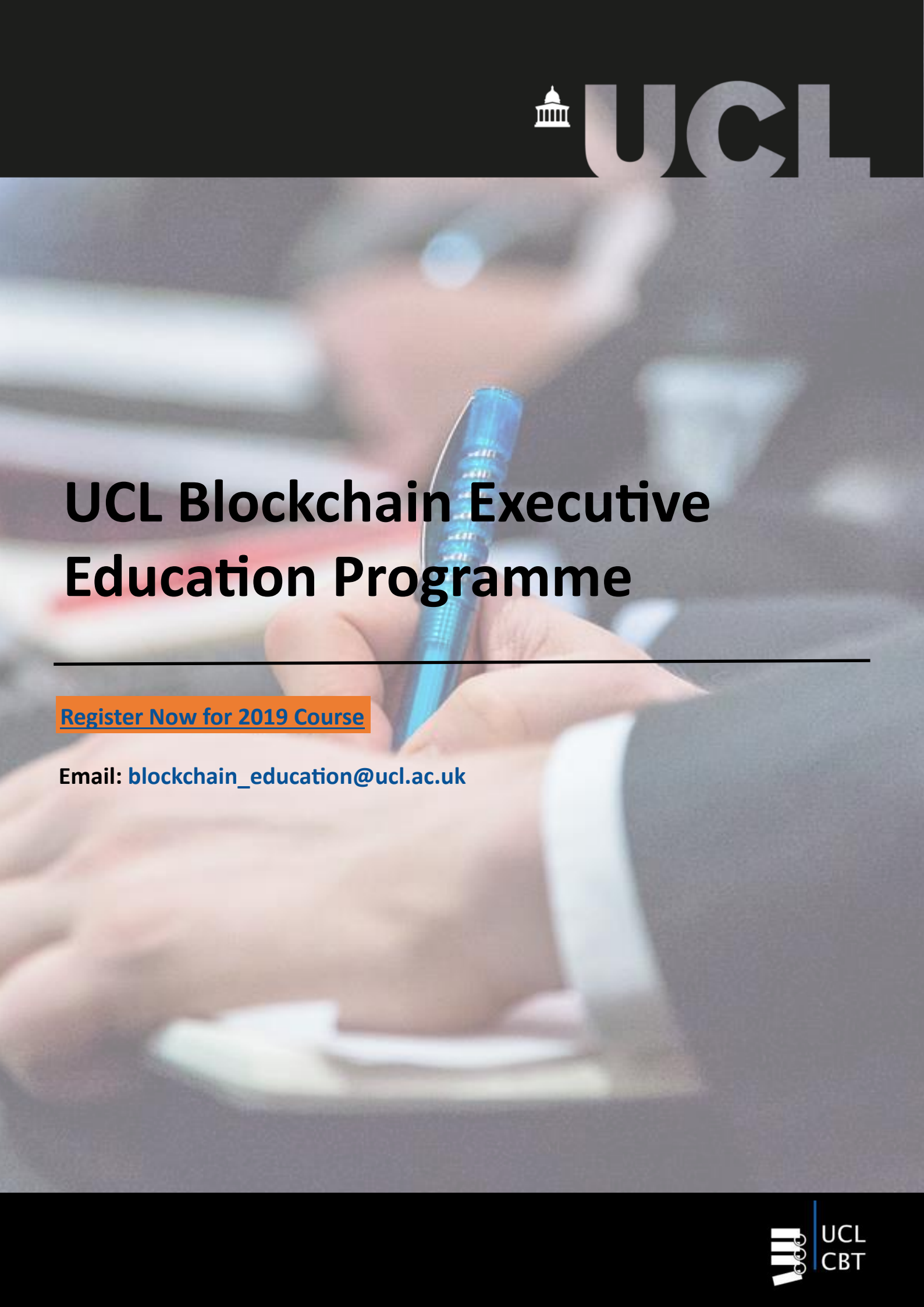
UCL is consistently ranked as one of the top 10 universities in the world[1]. It enjoys this reputation as a globally leading academic centre of excellence due to its culture of innovation and radical ideas. It was the first university in England to admit women on an equal basis as men in 1878. It has 29 Nobel laureates amongst its ranks, past and present.

Founded by Jeremy Bentham in 1826, UCL was the first university in England to be entirely secular and to admit students regardless of their religion. UCL alumni include the "Father of the Nation" of each of India, Kenya and Mauritius, the founders of Ghana, modern Japan and Nigeria, the inventor of the telephone, and one of the co-discoverers of the structure of DNA.

UCL invests strongly in the practical commercialisation of academic research by fostering innovation. The founders of DeepMind (now part of Google), one of the leading Artificial Intelligence companies in the world, met whilst at UCL. Deepmind is one of many success stories borne out of UCL's innovation environment.

The UCL ecosystem consists of more than 13,000 staff and 38,000 students from 150 different countries. This ecosystem has helped it achieve its ranking as the top university in the UK for research strength[2].

1 - QS World Rankings 2 - REF



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Register Now for 2019 Course

Email: blockchain_education@ucl.ac.uk

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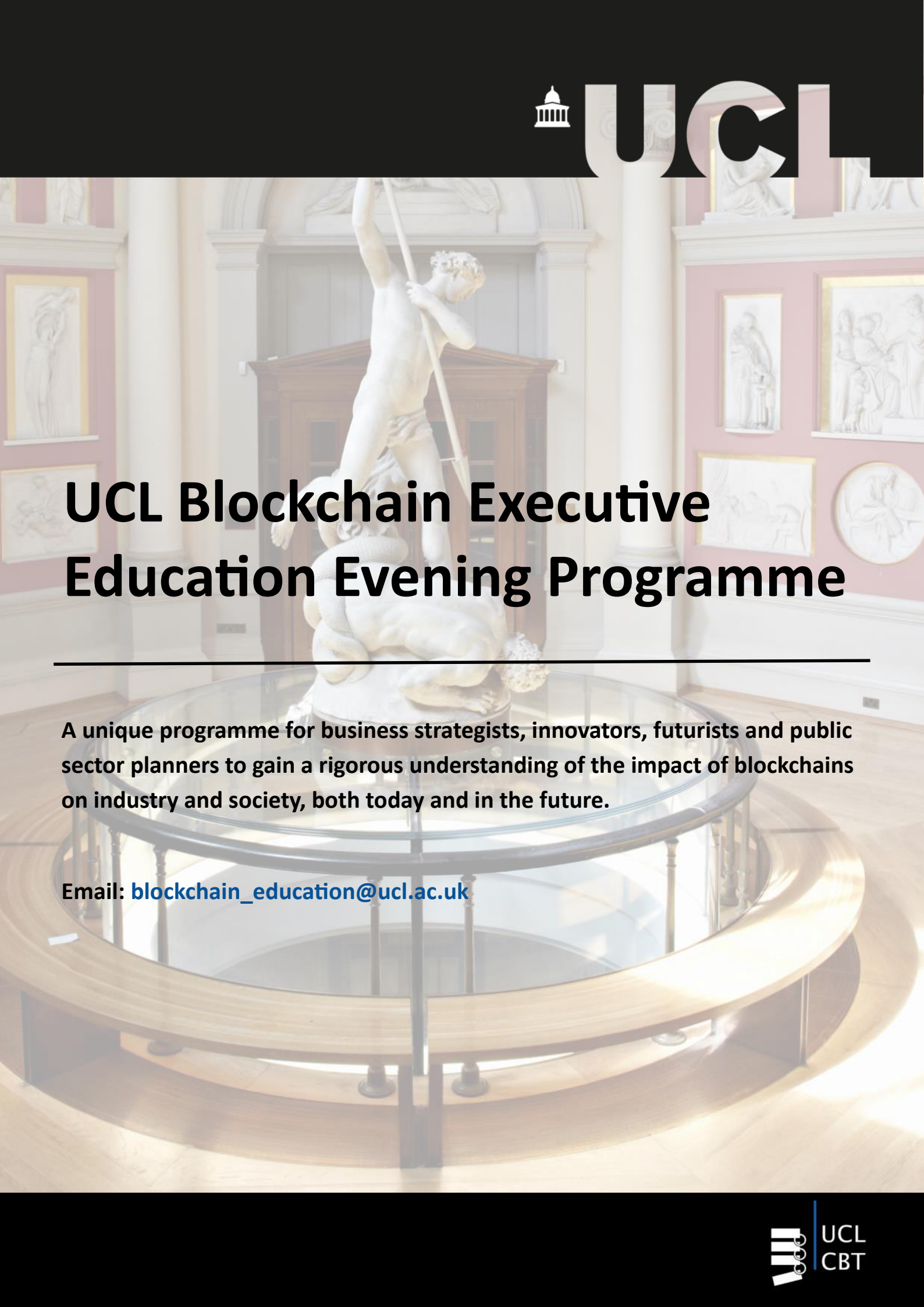

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