

Disruptive fintech degree launches at UCT

A new degree, Master of Data Science with a specialisation in Financial Technology (fintech), which combines finance, technology and entrepreneurship is set to disrupt the financial services industry.



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The University of Cape Town (UCT) is will be the first university on the continent to offer a degree specifically designed to equip students with the necessary skills and knowledge to embrace the technological revolution in the financial services sector.

The new degree will be offered in January 2018. The course convener, Dr Co-Pierre Georg, Senior Lecturer at the African Institute of Financial Markets and Risk Management (AIFMRM) at UCT, explains, “We are in constant and close contact with the financial services industry and know that it is facing a shifting demand for skills. In the past, companies were mainly looking for advanced mathematical and modelling skills. There still is demand for these skills, but by far the largest demand now is for students who have a thorough understanding of finance combined with a mastery of modern data analytics and software development skills. Our students will be able to develop these skills in the two most exciting areas of fintech: machine learning and blockchain technologies.”

Machine learning

Over the years, machine learning has given the world self-driving cars, speech recognition, and an improved understanding of the human genome. In the financial services industry, machine learning is used to analyse vast datasets, for example to identify a customer’s credit profile, to identify profitable companies, or to find an optimal investment strategy. Students in the new UCT degree will master machine learning methods and be able to develop their own applications using these methods.

Since the modern workplace requires a broad set of skills from various disciplines, the new degree is highly interdisciplinary and convened together with the Department of Statistical Science at UCT. Associate Professor and head of the department, Francesca Little outlines the idea behind the degree. “We started the MSc in Data Science to give students a thorough understanding of the latest methods in statistical learning. This includes the exciting field of machine learning and artificial intelligence. The idea then was to bring together UCT’s ‘best and brightest’ from other departments to

design a special degree. We are delighted to partner with AIFMRM so that we are able to offer a specialisation in the exciting new field of fintech.”

Blockchain technology

The other topical focus of the degree is the revolutionary new blockchain technology that is behind new cryptocurrencies such as Bitcoin. Blockchain is a broad technology that allows companies to store information in a distributed and cryptographically secured database. This makes it possible to store information in a way that is easily accessible and fully transparent, but completely secure at the same time. The most famous application to date is Bitcoin, a cryptographic currency that recently saw a phenomenal surge in value as more and more applications become available. Other applications for blockchain technology range from automated supply-chain management over remittance and other payment services, up to health services and insurance. According to industry participants, consulting firms, think tanks and government organisations, blockchain has the potential to revolutionise the economy completely.

Focus on entrepreneurship

Georg adds, “We combine all these hard skills from technology and finance and add to them the magic ingredient that makes our degree unique: a strong focus on entrepreneurship. Our students will have the skillset not only to work in the financial services sector but also to go out and start their own companies using what they have learned. We partner with a fintech incubator in Cape Town to make sure that students will be embedded in the activities of some of South Africa’s hottest new startups and most exciting fintech ventures.

“We see a demand for the degree already, also because Cape Town-based students can do the degree part-time. This is quite important to us, since we want working finance professionals to be able to complete the degree and acquire the skills to thrive in a changing industry. For students who want to do the degree full time, we do offer full scholarships to ensure that nobody will be excluded financially.

“Fintech offers a unique opportunity to transform the industry radically. Young startups are already challenging the incumbents and our students will be on the forefront of this technological revolution in South Africa. Our focus on entrepreneurship means that we will change the students’ mindset so that they not only want to go out and ‘get’ a job but also to go out and create a job - or a hundred,” concludes Georg.

Applications close 31 October 2017. For more information, go to www.aifmrm.uct.ac.za.