# OXFORD ALGORITHMIC TRADING PROGRAMME

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## PROGRAM COVERAGE

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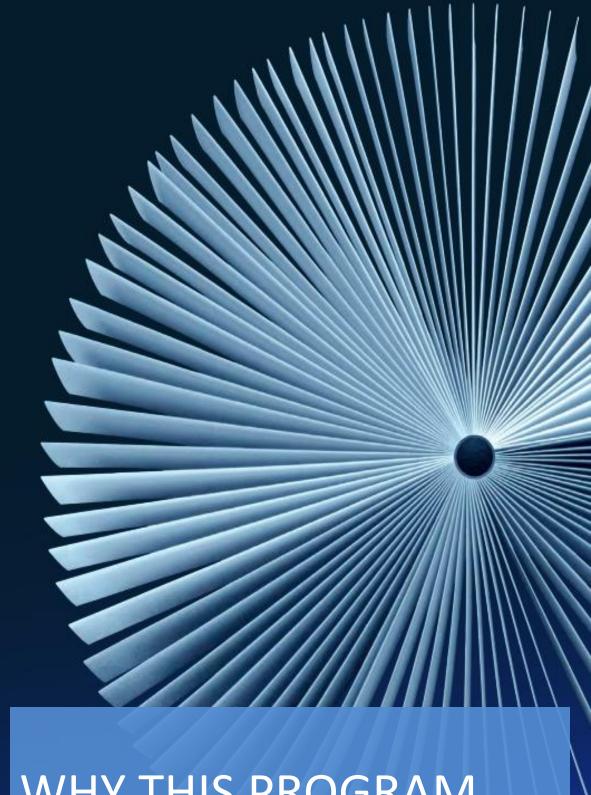
## **Bloomberg**











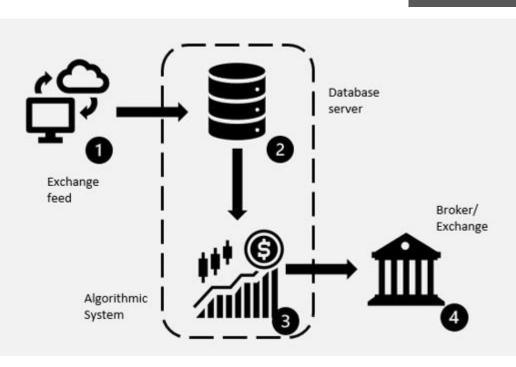
03 WHY THIS PROGRAM

#### **WHAT IS**

## ALGORITHMIC TRADING

#### Summary

Algorithmic trading (also called automated trading, black-box trading, or algo-trading) uses a computer program that follows a defined set of instructions (an algorithm) to place a trade. The trade, can generate profits at a speed and frequency that is impossible for a human trader.



- Live data real-time input into our system
- 2 Fully automated model updated with new data
- Orders generated by decision-making algorithmic platform based on defined algorithmic system-based rules
- Orders passed onto the exchanges automatically through automated trading software



## **CAREER PATHS**

#### WHO SHOULD ATTEND



#### **SELF TRADER**

Become self-employed and trade markets full-time through your own algorithms



#### START YOUR OWN PROPRIETARY TRADING DESK

Hire a small team and start your own Proprietary Trading desk



#### START OWN HEDGE FUND

Build sophisticated quantitative algorithms, prepare business plan, raise seed funding and start your own fund

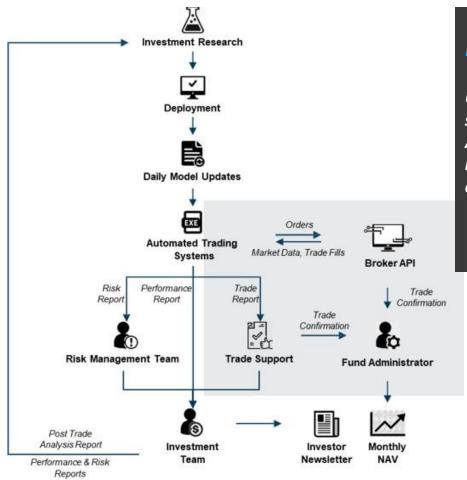


## JOIN PROPREITARY TRADING DESK OF BANK/BROKER

Join a Proprietary Algorithmic Trading desk with a Brokerage firm, Investment Bank or Treasury

## SETTING UP BUSINESS

#### LEARN BUSINESS ASPECTS OF ALGORITHMS



#### **Business Dynamics**

Understand the dynamics of setting up your own Algorithmic Trading business or launching your own fund

Туре	Class	Minimum Capital Contribution (in Crores)	Maximum Ca Contribution (in Crores)
Investors	A1	1.00	Less than 2.5
	A2	2.50	Less than 10.
	А3	10.00	Less than 25.
	A4	25.00	=
	B1	1.00	Less than 2.5
	B2	2.50	Less than 10.
	В3	10.00	Less than 25.
	B4	25.00	Not Applicab.
Sponsor	C1	10.00	

FUND INFORMATION	
Management Fee	0.75%-2%
Performance Fee	20%
Redemption Fee	No
Catch Up Fee	25% over Hurdle Rate
High Watermark	Yes
Hurdle Rate	Absolute (10%) Relative (Composite Benchmark)
Lock In Period	1 Year
Transfer Facility	Yes
Frequency of NAV	Monthly

OXFORD ALGORITHMIC TRADING PROGRAMME

**Certification** 

1

CONCEPTUALIZATION
OF ALGORITHMIC
STRATEGIES AND
HEDGE FUND STYLES

Certification

2

APPLIED ALGORITHMIC TRADING,
DEVELOPMENT &
DEPLOYMENT

Certification

3



## PROGRAM ROADMAP

Positioning of this certificate program in broader PG Diploma Program







#### Experts and contributors



Stephen Roberts
Professor of Machine
Learning, University of
Oxford



Anthony Ledford
Chief Scientist at Man AHL



Matthew Sargaison
Co-Chief Executive Officer
of Man AHL



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Business School



Stefan Zohren
Associate Professor at
Oxford-Man Institute of
Quantitative Finance



Giovanni Dapra
Co-founder and CEO of
MoneyFarm



Susi Gorbey
Director of Quantitative
Strategies Oversight at
Tudor Capital Europe



Ewan Kirk

CEO and Co-founder of
Cantab Capital Partners



Hans-Jorg Von-Mettennheim

Chair Quantitative Finance
and Risk Management,

IPAG Business School



Daryl Cook

Managing Director,
Systems Group at Tudor
Investment Corporation



Martin Lueck
Co-founder of Aspect
Capital



Steve Mobbs

Partner and Co-Founder
Oxford Asset Management



OXFORD
ALGORITHMIC
TRADING
PROGRAMME

#### **Certification**

1



UNIVERSITY OF OXFORD Saïd Business School

OXFORD
ALGORITHMIC
TRADING
PROGRAMME

**Certification** 

1

## Oxford Algorithmic Trading Programme

Understand the impact of automation, AI and machine learning on systematic trading





OXFORD ALGORITHMIC TRADING PROGRAMME

Certification

1

Module 1	Introduction to classic and behavioural finance theory.	
	Review the fundamentals of classical and behavioural finance and how theoretical trading models are applied.	
Module 2	Systematic trading and the state of the Investment Industry.	
	Interpret the historical and current state of systematic trading as well as the key challenges and opportunities faced by the industry.	
Module 3	Technical analysis and methods for trading system design	
	Illustrate the processes used to model automated trading systems for different types of Financial markets	

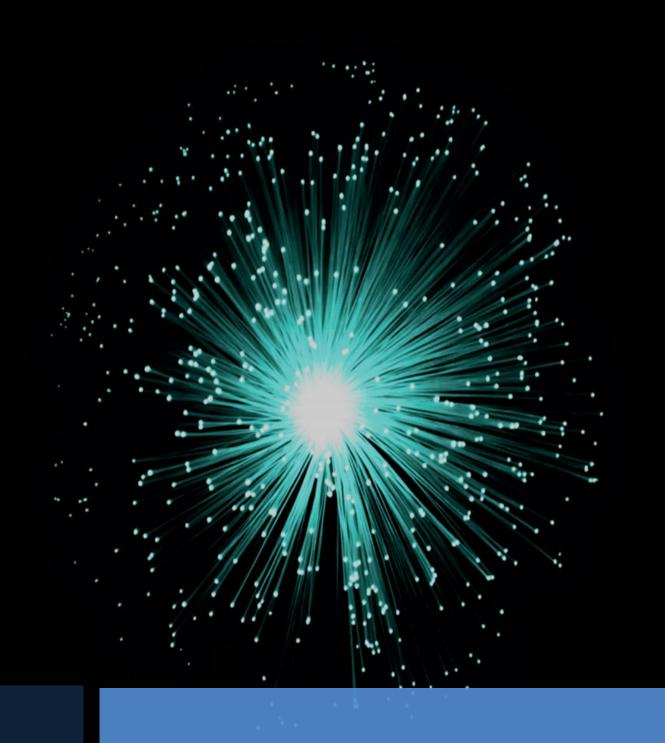


OXFORD ALGORITHMIC TRADING PROGRAMME

Certification

1

Module 4	Assess the efficacy of an algorithmic trading model model within a live environment or real-world market circumstance.
Module 5	Evaluation criteria for systematic models and funds  Be able to assess whether a trading model or fund is worth investing in based on key evaluation criteria
Module 6	Future trends in Algorithmic Trading  Formulate a view on the relationship between emerging technologies and the future of Systematic Trading.



02 PROGRAM DETAILS



#### **Program Coverage**

In this course you will explore the history of Algorithmic Trading, how to engage and evaluate Systems Trading, and enable to get their hands on and see how a simple Trading model is built. It also include learning how to integrate AI, Robo Advisory and Cryptocurrencies into your Systematic Trading strategy.



#### 4-Months Weekend Program

The Program would be offered on the weekends to enable optimal learning to those participants who are working in the Industry



#### **Industry Partners**

Our industry partners would provide you the appropriate domain and industry expertise to tackle Algorithmic Trading challenges in the real world



### Careers and Placement help

Our program would fast track your career progression in Algorithmic Trading Programme through our dedicated Placement Assistance and Industry Networking

## PROGRAM HIGHLIGHTS

#### **PEDAGOGY**



#### **Blended Learning**

The Program would offer an optimal blended mix of On campus bootcamp sessions, online sessions, self-paced sessions to maximize learning



#### **Project & Live Lab**

The Project gives you the opportunity to apply Algorithmic Trading Programme concepts



### Industry-oriented curriculum

Industry focused curriculum offered in a flexible online blended interactive format that works for busy professionals



One of the first institutions in India to be accredited in 1998 by the NAAC, and subsequently in 2004 and 2016, CHRIST University has the top grade 'A' in the 4-point scale. It has consistently ranked among the top ten for UG courses in surveys done by the India Today group, having specialized program offerings across Data Science, Analytics, Capital Markets, and FinTech.

The multi-disciplinary University which focuses on teaching research and service offers Bachelors to Doctoral programs in Humanities, Social sciences, Science, Commerce, Management, Engineering, Education, and Law to over 25000 students.

United Nations Academic Impact (UNAI) membership has added Christ University to the UNAI team of 1470 institutions in 146 countries, who are working with the United Nations to promote global priorities, including peace, human rights, and sustainable development.

EDUEDGE PRO is an EdTech initiative, founded by Mr. Harjeet Singh, a Stanford Alumnus and Financial Mathematician.

EduEdge Pro provides Skill Development and Skill Enhancement education in specialized domains within BFSI, Data Science, Analytics, FinTech, Capital Markets and Algorithmic Trading in order to bridge the gap between academia training and industry needs and to provide Upskilling.

EduEdge Pro conducts corporate training programs for leading global investment banks, asset management firms, financial institutions, exchanges and brokerage houses.

It works with leading educational institutions and universities in providing end-to-end solutions such as Centre of Excellence, Financial Research Lab and Specialization Curriculum Tracks.

PARTNERS

## PROGRAM

#### **CHAIR**



## HARJEET SINGH Program Chair

Harjeet has been a serial entrepreneur in FinTech, EdTech and Capital Markets and is a Financial Mathematician and Alumnus of Stanford University. He has a rich and varied experience in Global Markets & Risk, Investment Management, Sales & Trading, Algorithmic Trading, Quantitative Finance and Management Consulting across international financial institutions, banks, MNCs such as Morgan Stanley, Nomura, Standard Chartered Bank, Merrill Lynch and Accenture Consulting.

He is the Founder-Director, Global CIO and Board Member of Stelios Asset Management, a global Hedge Funds across India, Mauritius and Dubai. He is also Founder-Director of EduEdge Pro, a leading EdTech company. He is a leading industry expert in Algorithmic Trading, FinTech and Analytics. He also consults the Ministry of Finance on matters related to policy frameworks in Capital Markets

#### **Global Charters**

He has received the CFA, FRM, CAIA and PRM International charters and is a member with international associations such as CFA Institute, Global Association of Risk Professionals (GARP), Chartered Alternative Investment Analyst Association (CAIA Association) and Professional Risk Managers' International Association (PRMIA).

#### **Asset Management Business**

He is currently the Global CEO, CIO and Board Member of Stelios Asset Management Pvt Ltd. Founded in 2019, STELIOS Asset Management has received Series A international VC funding for setting up global Hedge Funds as well as onshore/offshore India-focused Hedge Funds. He has received Investment Manager licences to start hedge funds across India, Mauritius and Dubai. He holds a SEBI-registered AIF CAT III license for a long/short Equity fund in India.

#### **Consultant to Ministry of Finance**

He is also consulting the Department of Economic Affairs – Ministry of Finance in Capital Markets Policy Formation.

#### **EdTech Initiative**

He is the Founder-Director at EduEdgePro Pvt Ltd. EduEdgePro is an EdTech initiative, founded by Harjeet as part of a Family office initiative. EduEdgePro provides Skill Development and Skill Enhancement in BFSI and Analytics in order to bridge the gap between academia training and industry needs. It runs B2B programs with leading corporates and educational institutions/universities across India. EduEdgePro has conducted specialized domain training sessions in Capital Markets and Analytics for Exchanges, Regulators, Asset Management firms, Banks, Financial Institutions, Universities such as Securities and Exchange Board of India (SEBI), Multi Commodity Exchange (MCX), National Stock Exchange (NSE), Invesco Asset Management, Prudential Asset Management, JP Morgan Asset Management, Nomura, Morgan Stanley, Christ University and National Institute of Securities & Markets (NISM).

EduEdgePro has collaborated with industry partners such as Moody's Analytics, Bloomberg, CISI and MCX to provide industry-relevant certification training and programs.

#### **FinTech Initiative**

His other firm, QRAC Pvt Ltd, is an Indian FinTech company, founded by Harjeet as part of a Family office initiative. QRAC houses a Quantitative Investment Research division that specializes in building Quantitative Investment Strategies across global equities, commodities, currencies and fixed income for Institutional Advisory portfolios.

#### **ELIGIBILITY**

#### **CRITERIA**





10+2 aspiring candidates of any educational background with an analytical frame of mindset are most suited one to pursue Algorithmic Trading programme Various certifications.



#### **WORK EXPERIENCE**

Work experience is not mandatory.

However it is desired that you have internship or fulltime experience so that you can move up the learning curve faster through prior industry domain knowledge.



## PROGRAMMING EXPERTISE

It is not required to have a Programming background, although desirable.

However, those without Programming background will undergo Pre-requisite training on Programming to accelerate the learning when the Program begins.



#### **SELECTION &**

#### **ADMISSION PROCESS**

#### **Application Process**

The Application process consists of a few simple steps as shown below. An offer of admission would be made to the selected candidates and accepted by the candidates by paying the admission fee.









5



Program Counselling

Application

Interview

Documentation

Payment Processing

Confirmation

#### STEP 1

PROGRAM COUNSELLING

We have a dedicated admission counsellor who are here to help guide you in applying to the program. They are available to:

- Address questions related to application.
- Assist with Financial Aid (if Required)
- Guide career role and opportunities after certified.
- Help you to understand the program detail and pedagogy.

#### STEP 2

**APPLICATION PROCESS** 

- Complete your application to kick start the admission process.
- Rate your various skills of OOPs language, quantitative and logical ability.
- Submit application fee:
   ₹ 500/-
- Submit the form successfully and scheduled your interview with us.

#### STEP 3

**INTERVIEW PROCESS** 

- Interview is with admission committee, who will review the candidate profile.
- Selection will be determined on the basis of academic records, work experience, test scores and interview.
- Upon qualifying a confirmation letter for admission to the PG Diploma in Data Science will handover to the candidate.

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Program Counselling

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## STEP 4 DOCUMENTATION

After interview on the basis of confirmation letter, the required papers mentioned in the mandatory list of documents as per eligibility criteria. You would be required to submit your marksheets, education certificates, work experience proofs amongst other necessary documents.

#### STEP 5

PAYMENT PROCESSING

Block your seat with the initial amount of fees and begin with your prep course and start your Data Science journey.

Full or annual program fee to be deposited within 1 week of offer letter / program start – whichever is earlier.

#### STEP 6

CONFIRMATION

Your admission will be confirmed basis the selection procedure, document authentication and fee payment.

A welcome letter, ID card, student number and portal access will be shared upon successful completion of the admission process.



#### **PROGRAM FEE**

Application fee: INR 500 plus GST Indian participants: INR 200,000 plus GST International participants: USD 2500 plus taxes

#### **FINANCING OPTIONS**

Please get in touch for further details

#### **SCHOLARSHIPS**

Existing Christ students and Alumnus: Available Other participants: Available on outstanding merit record

#### **CORPORATE DISCOUNTS**

Available on nominations of 2+ participants Kindly contact us for further details