

Gifted Education Fund: Off-school Advanced Learning Programmes

Programme No. 2022-09 (For secondary students)

Title of Programme	Nurturing Future Leaders and Researchers in Economics and Finance
Programme Provider	Department of Decision Sciences and Managerial Economics, CUHK Business School (Supporting organisations: The Hong Kong Academy for Gifted Education; Undergraduate Office, CUHK Business School)
Theme	STEAM-related Mentorship Programme; Humanities and Social Science Research Programme; Self-initiated Research Study
Maximum No. of Participants and Class Level in the 2022/23 School Year	40 students (Secondary 3-5)
Pre-requisite	Applicants should demonstrate good academic performances and possess strong interest in Finance and Economics (prior knowledge in these fields are not required).
Programme Delivery Period	From June 2023 to January 2024 (8 months) (tentative)
Medium of Instruction	Course Material: English supplemented with Chinese Class teaching/ Discussion: Cantonese supplemented with English
Objectives	<ul style="list-style-type: none">• To equip gifted students with essential business knowledge including but not limited to economics, finance and financial technology to help them become future leaders and researchers in relevant fields;• To develop their qualitative and quantitative analytical skills in finance and economics, and enhance their ability in turning theories into practice through authentic research and presentation;• To empower and help students realise their potential in economics and finance so that they may plan their future study and career early; and• To nurture positive values and attitudes essential for whole-person development of the students such as perseverance, responsibility, integrity, adherence to business ethics, etc., and to promote affective education among the students so that they may become empathetic and responsible leaders in future.
Programme Outline	This programme equips the gifted students with the knowledge and skills in finance and economics so that they can plan their study and careers in relevant fields early. The programme will also nurture positive values and attitudes with due attention to the affective

development with a view to grooming the students to become empathetic and responsible leaders in future.

The programme consists of four phases.


Phase 1: Understanding our world through the lens of financial and economic models, frameworks, and institutions (51 hours)


- This phase provides foundation knowledge of finance and economics that students need to handle the learning tasks of numerical analysis and simulations in Phase 2. Major topics and learning and teaching activities are as follows.
 - An open ceremony
 - Theoretical knowledge :
 - (a) Financial analysis (financial valuation and investment analysis) (5 lessons); and
 - (b) Macroeconomic analysis (economic indicators, economic models and macroeconomics policies) (6 lessons)
 - Positive values and attitudes:
 - (a) Special topics for gifted student development (personal finance, business ethics, social values of businesses, etc.) (2 lessons); and
 - (b) Affective education workshops (2 lessons)
 - Mentorship hours and online self-study
- Phase 1 challenge: Written and video commentaries on a recent finance and economics news

Phase 2: Analysing the past, present, and future through financial and economic modelling (50 hours)

- This phase equips gifted students with the skills of financial engineering and econometrics to quantitatively assess corporate and economic performances. Major topics and learning and teaching activities are as follows.
 - Modeling and technology:
 - (a) Financial modeling and technologies (financial modeling with programming and Bloomberg Terminal; FinTech & extensions) (4 lessons); and
 - (b) Data analysis of Hong Kong economy (econometric modeling using programming, Hong Kong economy) (4 lessons)
 - Life planning:
 - (a) Visit to financial institutions (2 sessions); and
 - (b) Life and career planning workshop (5 sessions)
 - Report writing and presentation workshops for preparation of Phase 3 (2 sessions)
 - Mentorship hours and online self-study
- Phase 2 challenge: Analysis report and presentation on a self-selected listed technology company with financial engineering and econometric analysis

Phase 3: Research on Finance and Economics under mentorship and support (at least 20 hours)

	<ul style="list-style-type: none"> In this phase, the students will work in groups, select and conduct research on one of the options/ themes below: <ul style="list-style-type: none"> (I) Option 1: Humanities and Social Science Research - Economic Research under Faculty Members' Supervisions Students can choose from the following two themes : <ul style="list-style-type: none"> (a) Theme 1: Macroeconomic research on Hong Kong economy (b) Theme 2: Government policies research (e.g. housing policies) (II) Option 2: Self-initiated Research Studies - Finance Research under Faculty Members' Supervisions <ul style="list-style-type: none"> - Theme: Quantitative research in financial trading algorithms - A spectrum of topics is available for students to conduct research, ranging from tools (Python, Excel, business intelligence software, etc.), evaluation and optimization targets (Volume-Weighted Average Price [VWAP], Time-Weighted Average Price [TWAP], etc.), to technical analysis and comparison of its results to fundamental analysis. They may also propose other research topics after consultation of their supervisors. Students will obtain mentorship and support from faculty members (i.e., senior lecturers or professoriates) and the programme team. They will meet the faculty members regularly to acquire feedback on their research proposals, interim research reports and final research reports before submission. <p>Phase 4: Conference to showcase students' achievements (half-day)</p> <ul style="list-style-type: none"> By the end of the programme, students will set up booths in an academic conference to showcase their research results and present their ideas/ innovations to visitors/ guests, who may raise questions about their research in an interactive discourse. Teachers, parents, alumni and academics of the CUHK, and representatives of the supporting organisation will be invited to join the conference. <p>Programme website: https://www.futureleadereconfina.hk/</p> 
Admission Fee	Free of charge
Application Method	Application form can be downloaded from the following webpage:

	<p>https://www.edb.gov.hk/en/curriculum-development/curriculum-area/gifted/ge_fund/gef/programme/current.html</p>  <p>Please complete the application form and send it by post <u>on or before 21 April 2023</u> to the following address:</p> <p>Department of Decision Sciences and Managerial Economics 9/F, CYT Building The Chinese University of Hong Kong Shatin, New Territories (Attn: Mr Sonam WANGCHUK)</p>
Documents to be Submitted along with the Application	<ul style="list-style-type: none"> • Please include the following in the section of Student's Self-introduction in the application form: <ul style="list-style-type: none"> - Self-introduction essay that demonstrates students' interest in finance and economics (within 300 words in English or 360 words in Chinese)
Enquiry	<p>Mr Sonam WANGCHUK (Department of Decision Sciences and Managerial Economics, The Chinese University of Hong Kong)</p> <p>Tel No.: 5478 0978 Email: admin@futureleadereconfina.hk</p>
Date of Announcement of Result	By May 2023 (tentative)