



SCIENCE MASTER CLASS

Learn from the Best Minds • Be Inspired by Our Science Masters

6688

Bachelor of Science (BSc) & Master of Research (MRes)

Incubating the next generation of scientists

2024 - 25 (September 2024 intake)

Double degree programme

Is the Programme for You

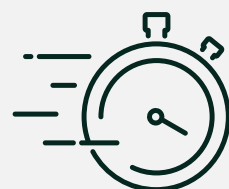


We understand the learning pace and needs of highly able students might be different – they are quick learners who can usually accomplish more than expected, and therefore a standard pedagogical routine might not be an ideal option for them.

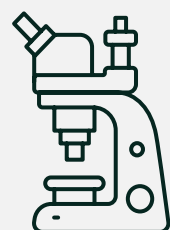


This elite programme:

Provides a fast-track of study for talented students:
completing 2 degrees at an accelerated pace

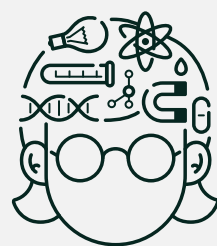


Why this Programme

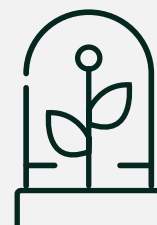


allows research-aspired students to immerse themselves in an **authentic research environment** and learn from researchers with diverse backgrounds

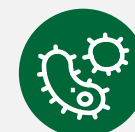
caters specifically to the needs of science-inclined students, with **more learning opportunities, intensive training and inspirations**



incubates the next generation of dynamic scientists who are able to **translate scientific knowledge into practical applications** with far- and wide-reaching impacts



Eminent Subject Rankings



#43

Life Sciences

#47

Physical Sciences



#29

Life Sciences & Medicine

#81

Natural Sciences



Top-notch Scientists in the Faculty

Clarivate Analytics' Essential Science Indicators

18.3% of our professoriate staff (average over the past decade) are classified as Top 1% of scholars

International Environment

About **40%** of academic staff in the Faculty are from overseas

World Rankings of HKU



#1

Most international universities in the world 2023

#4

Asia University Rankings 2023

#35

World University Rankings 2024



#2

Asia University Rankings 2024

#26

World University Rankings 2024

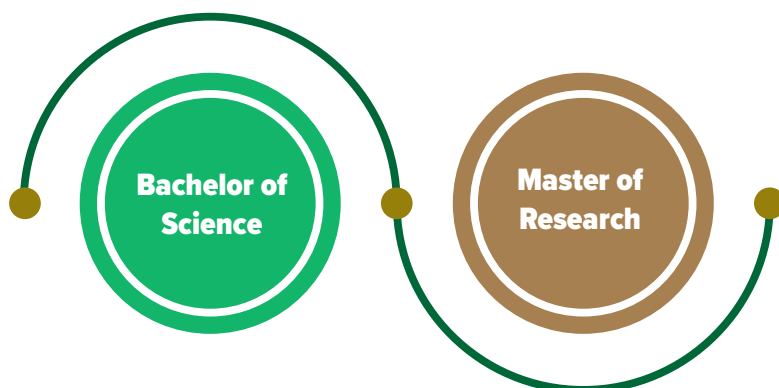
#10

World Graduate Employability Ranking 2022



WHAT the Programme Covers

Fast-track for completing 2 degrees



Remarks: Students in the programme have to maintain a high CGPA in order to remain in this double degree programme or else they have to switch to the 6901 BSc programme

Learning from Science Masters

Grand Masters through special tutorials



Masters as academic advisers

Catering the needs of elite students



disciplinary-based intensive study for research-aspired students

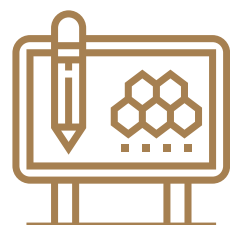


ample opportunities available in our flagship Young Scientist Scheme (YSS) including

- Summer Research Fellowship
- Entrance Scholarship
- Overseas Research Fellowship
- Exchange Study
- A chance to join the Cambridge-track*

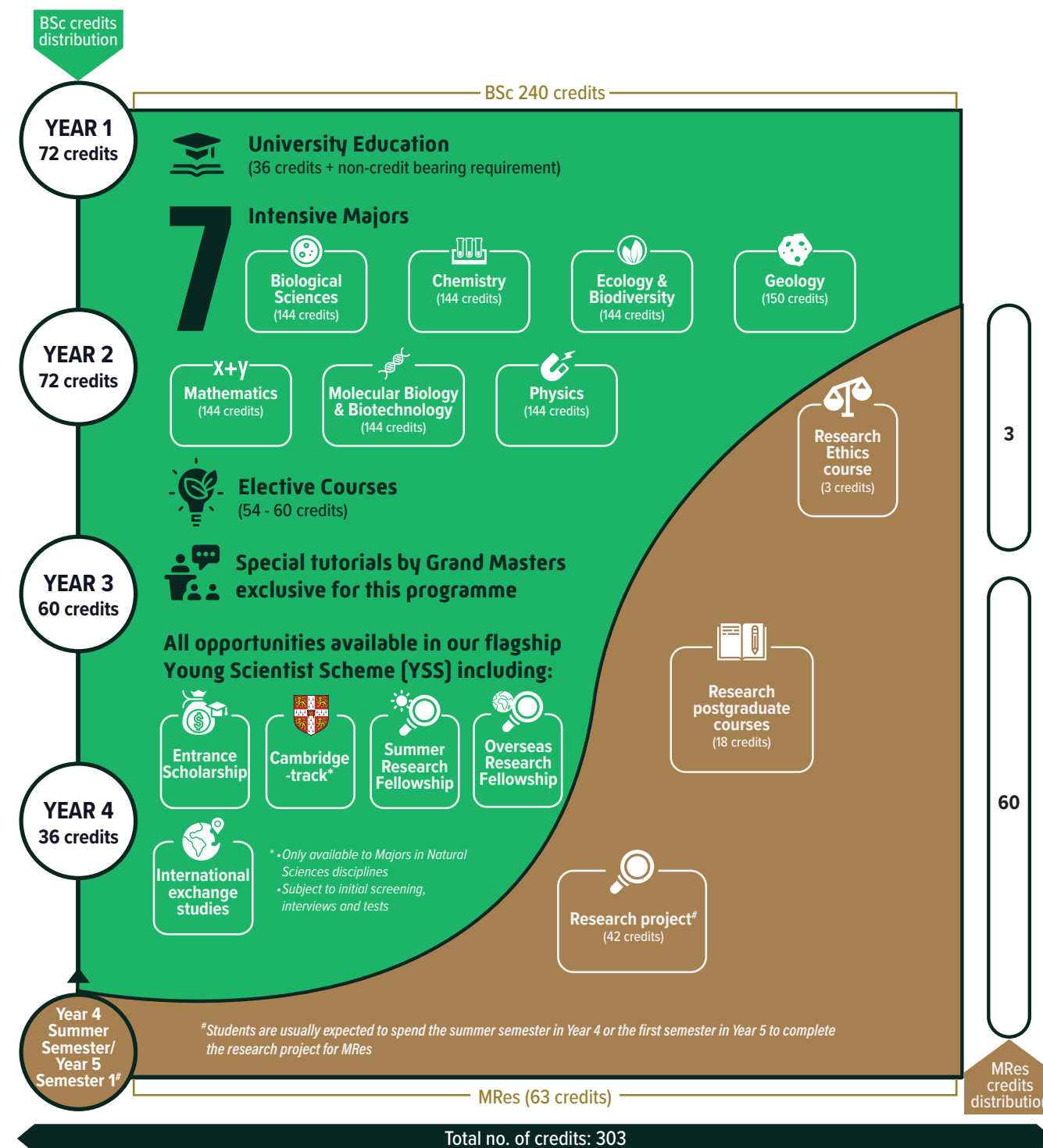
* • Only available to Majors in Natural Sciences disciplines
• Subject to initial screening, interviews and tests
• Candidates admitted to the Track will go through further screening by Cambridge

Research-oriented



Research postgraduate courses and projects to enhance the students' frontier scientific knowledge and research skills

WHAT You will Learn



Programme Information	BSc	MRes
Study load 303 credits for 2 degrees	240 credits	63 credits
Class schedule	Full-time	
Academic advising	<ul style="list-style-type: none"> • Students in the programme will be given individual advice to properly plan their study • Each student will be assigned an academic adviser at the start of the study to guide them through the whole study 	
Tuition fees*	HKD 42,100 per year (local) HKD 182,000 per year (non-local)	HKD 120,000*

*Scholarships will be provided to cover at least 50% of the tuition fee of the MRes programme

* Subject to review

WHERE this Programme will Lead You to



Professional recognition

Some of the Intensive Majors fulfil the accreditation requirements of various societies in the UK



Biological Sciences (Intensive)
Ecology & Biodiversity (Intensive)
Molecular Biology & Biotechnology (Intensive)



Geology (Intensive)



Chemistry (Intensive)

- Provides an accelerated route to achieve the professional qualification with completion of the programme and fulfilment of specific project requirement



Career development & network

- Nurtures students who intend to pursue research in science
- After completing the BSc and the MRes, students will be fully equipped to further pursue graduate studies in prominent university overseas or in HKU
- Builds a consortium of young researchers for cross fertilisation of innovative ideas and facilitates possible multidisciplinary projects

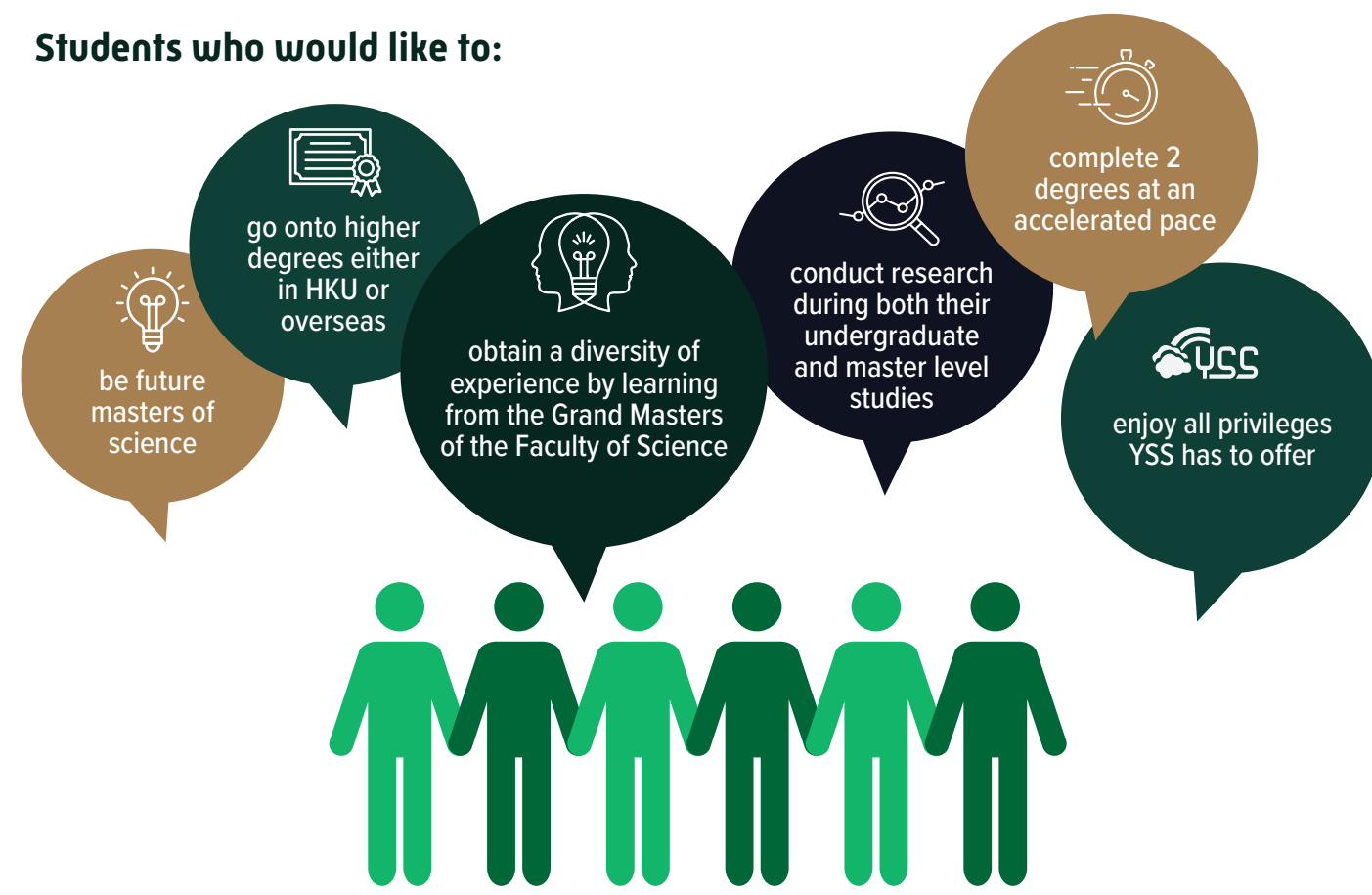


Transferable skills

- Provides students with extensive subject knowledge and specialised training
- Nurtures a scientifically literate population to formulate solutions for research challenges

WHO should Join this Programme

Students who would like to:



Hear from Our Students



Jerry NG

BSc&MRes Year 3 student
Summer Research Fellowship participant

“HKU Science is the only Faculty offering an intensive major programme in Ecology & Biodiversity in Hong Kong, and this is why I am here! I am eager to learn directly from the grand masters and masters — a precious opportunity exclusive to students of this Science Master Class programme, so that I can further enrich my knowledge and develop my practical skills in Ecology and Biodiversity. I hope this programme can equip me to conduct research about habitat studies of succulent plants in Mexico, South Africa and Madagascar in the future.”



“With various opportunities offered by this programme, I was able to participate in the ecology research work that I have always been interested in. During my first year at HKU, I assisted with research in ants, butterflies and spiders. Through all those research experiences, my understanding of ecology and biodiversity deepened, which made me one step closer to my dream to be a researcher. Besides, by learning from the Grand Masters in a series of master tutorials, I acquired fascinating transdisciplinary knowledge and methods of conducting research. Furthermore, inspired by their passion for scientific research, I hope one day I can devote myself to ecology research and protect the beautiful yet delicate natural world.”



Clare GUO

BSc&MRes Year 2 student

Your Programme Experts

Skills alone would not make one succeed. It is the attitude, visions and efforts that set one's direction. Learn from the wise and broaden your horizon.

We have renowned scientists including:

- Members of Chinese Academy of Sciences, Hong Kong Academy of Sciences, and Hong Kong Young Academy of Sciences
- International Members of National Academy of Sciences USA and a Foreign Member of Academia Europaea
- Awardees of International/National Awards/Prizes
- A number of highly cited scientists

Get to know our Grand Masters



Professor Chi Ming CHE

*Zhou Guangzhao Professor in Natural Sciences
Chair Professor of Department of Chemistry*

As an Elected Member of the Chinese Academy of Sciences, the first Hongkonger to receive a First-class Prize of the State Natural Science Award and recipient of numerous awards in international academic arena including International Member of the US National Academy of Sciences, Professor Che's pioneering study on synthetic chemistry shapes the culture of local research community. Steering the direction of profound research like Laboratory for Synthetic Chemistry & Chemical Biology and State Key Laboratory of Synthetic Chemistry, his wisdom can definitely inspire one's heart.



Professor Hongjie DAI

Chair Professor of Department of Chemistry

Professor Dai's research spans chemistry, physics, and materials and biomedical sciences, leading to materials with properties useful in electronics, energy storage and biomedicine. Recent developments include near-infrared-II fluorescence imaging, ultra-sensitive diagnostic assays, a fast-charging aluminum battery, alkali metal/Cl₂ batteries and inexpensive electrocatalysts that split water into oxygen and hydrogen fuels. Among many awards, Professor Dai has been recognised with the ACS Pure Chemistry Award, APS McGroddy Prize for New Materials, Julius Springer Prize for Applied Physics and Materials Research Society Mid-Career Award. He has been elected to the American Academy of Arts and Sciences, National Academy of Sciences (NAS), National Academy of Medicine (NAM) and Foreign Member of Chinese Academy of Sciences.



Professor Ngaiming MOK

*Edmund and Peggy Tse Professor of Mathematics
Director of Institute of Mathematical Research
Chair Professor of Department of Mathematics*

As a top-notch mathematician who has resolved many classic math problems, Professor Mok has been the leading figure and the brain of HKU Institute of Mathematical Research for years. Among his recent professional accolades, Member of the Chinese Academy of Sciences, State Natural Science Award, Member of the Hong Kong Academy of Sciences, Future Science Prize, Tan Kah Kee Science Award and Chern Prize are some of the representative ones. He appreciates the aesthetics of mathematics, which young intellectuals will find his "mathematics-as-life" attitude enlightening.



Professor Alice Sze Tsai WONG

*Associate Vice-President (Research)
Chair Professor of School of Biological Sciences*

Professor Wong is a knowledgeable biologist who leads a team of scientists studying cell adhesion and signal transduction in cancer. She is a recipient of the RGC Senior Research Fellowship and also the Croucher Foundation Senior Research Fellowship. While her work provides important insights into the nature of ovarian carcinogenesis and informs the best practices of identifying new targets in cancer diagnosis and therapy, her experiences at laboratory are equally inspiring.



Professor Vivian Wing Wah YAM

*Philip Wong Wilson Wong Professor in Chemistry and Energy
Chair Professor of Department of Chemistry*

Not only can we learn from Professor Yam of her innovative and frontier research, her resilience and values also inspire us on how to stay focused and insist on quality and excellence. Despite the many recognitions she has received, such as State Natural Science Award, Elected Member of Chinese Academy of Sciences, International Member of the US National Academy of Sciences, Laureate of L'Oréal-UNESCO Awards For Women in Science, Bailar Medal, and Josef Michl American Chemical Society (ACS) Award in Photochemistry, etc., she remains committed in pursuing and passing on knowledge and does not let go of chances to inculcate values to the young ones. Professor Yam is also the President of The International Organization for Chemical Sciences in Development (IOCD).

Your Programme Experts



Professor Wang YAO
Chair Professor of Department of Physics

Professor Yao is a condensed matter physicist. He has been named by Clarivate Analytics in the list of “Highly Cited Researchers” among the world’s eminent researchers in 2018 - 2022. His current research interest lies in 2D materials, and has played a decisive role in creating an important new research direction – valley optoelectronics, which aims to exploit valley, a quantum degree of freedom of electron, in future optoelectronic devices. He is an Elected Fellow of American Physical Society, RGS Senior Research Fellow, and recipient of Tencent Xplorer Prize, Huang Kun Prize, Nishina Asia Award and Founding Member of Hong Kong Young Academy of Sciences.



Professor Shuang ZHANG
Chair Professor of Department of Physics

Professor Zhang specialises in photonics, particularly in the area of metamaterials. His notable contributions include the first demonstration of geometric phase for harmonic generations, the pioneering of optical negative index materials, and the implementation of topological photonics using metamaterials. He has been recognised as a “Highly Cited Researcher” by Clarivate Analytics from 2018 to 2023 and is a Fellow of the American Physical Society and Optica. Professor Zhang has received prestigious awards, including the New Cornerstone Investigator Program, Royal Society Research Merit Awards, and IUPAP Young Scientist in Optics.



Professor Guochun ZHAO
Chair Professor of Department of Earth Sciences

Professor Zhao has a clear mind in the face of challenges on his research of metamorphic petrology, Precambrian geology and supercontinents. His perseverance makes him the holder of many prestigious honours – Member of Chinese Academy of Sciences, National Natural Science Award (First-class, co-winner), State Natural Science Award (Second-class, co-winner), HKU Distinguished Research Achievement Award, and named by Clarivate Analytics as “Highly Cited Researcher” for 9 years in a row.



ADMISSIONS Requirements & Applications

JUPAS Applicants

- Students in local secondary schools taking the Hong Kong Diploma of Secondary Education Examination (HKDSE) should apply through JUPAS.
- Minimum requirements:

ENG English Language	CHI Chinese Language	\sqrt{x} $(x+y)=$ Mathematics	Citizenship and Social Development/ Liberal Studies	Elective Subjects
Level 3	Level 3	Level 4	Attained / Level 2	Level 3 (2 Science or 1 Science+M1/M2) [#]

[#]Science elective subjects: Biology, Chemistry, Physics, Combined Science

Non-JUPAS Applicants

Non-JUPAS applicants will be considered on a case-by-case basis. In general, excellent results in Mathematics and Science subjects are required.

Quota
24



Programme
website



HKU
Undergraduate
Admissions



Faculty of Science

 <https://www.scifac.hku.hk/>

 (852) 3917 2683  sci.ug.admission@hku.hk

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