Learn from the Best Minds
Be Inspired by Our Science Masters

6688 SCIENCE MASTER CLASS 2023-24

Double degree programme
Bachelor of Science (BSc) & Master of Research (MRes)
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
- 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
- allows research-aspired students to immerse themselves in an authentic research environment and learn from researchers with diverse backgrounds

World-class Rankings of HKU

- Times Higher Education (THE)
  - #1 Most international universities in the world 2022
  - #30 Asia University Rankings 2022
  - #30 World University Rankings 2023
- Quacquarelli Symonds (QS)
  - #21 World University Rankings 2023
  - #3 Asia University Rankings 2022

Eminent Subject Rankings

- QS World University Rankings by Subject 2022
  - #62 Biological Sciences
  - #51-100 Chemistry
  - #51-100 Earth & Marine Sciences
  - #51-100 Geology
  - #51 World University Rankings 2023
  - #10 World Graduate Employability Ranking 2022

Top-notch Scientists in the Faculty

- Clarivate Analytics’ Essential Science Indicators 2021
  - 18% of our professorial staff are the world’s Top 1% Highly Cited Researchers

International Environment

- About 40% academic staff in the Faculty are from overseas
WHAT the Programme Covers

Fast-track for completing 2 degrees

Bachelor of Science  →  Master of Research

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 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

Research-oriented

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

WHAT You will Learn

BSc 240 credits

YEAR 1
72 credits

University Education
(36 credits + non-credit bearing requirement)

YEAR 2
72 credits

Intensive Majors

YEAR 3
60 credits

Elective Courses
(54 - 60 credits)

YEAR 4
36 credits

Special tutorials by Grand Masters exclusive for this programme

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

Research Ethics course (3 credits)

Research postgraduate courses (18 credits)

Research project# (42 credits)

YEAR 4
Summer Semester/
YEAR 5
Semester 1#

Total no. of credits: 303

Programme Information

BSc 240 credits

MRes (63 credits)

Study load 303 credits for 2 degrees

Class schedule Full-time

Academic advising
• 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 42,300 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.

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YEAR 5
Semester 1#
WHERE this Programme will Lead You to

Professional recognition
Some of the Intensive Majors fulfill the accreditation requirements of various societies in the UK.

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 universities overseas or in HKU
- Builds a consortium of young researchers for cross-fertilization of innovative ideas and facilitates possible multidisciplinary projects

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

WHO should Join this Programme
Students who would like to:
- be future masters of science
- go onto higher degrees either in HKU or overseas
- complete 2 degrees at an accelerated pace
- obtain a diversity of experience by learning from the Grand Masters of the Faculty of Science
- conduct research during both their undergraduate and master level studies
- enjoy all privileges YSS has to offer

Hear from Our Students

Jerry NG
BSc&MRes Year 2 student

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.

En Yu YAP
BSc&MRes Year 2 student

Through the pandemic, we get to see how the world can rely on technology to move forward – we are able to host almost everything online as compared to 20 years ago. However, I think we can do more. There is why I joined this programme – I wish to work on molecular electronics or more specifically in display technology. Chemistry studies are the building blocks of everything, including the phones and tablets. We can make the materials more efficient, bid down the price and make electronic devices more accessible for everyone. I hope that one day I will be able to discover more about whichever field that I end up going into, and share with the world my own findings.
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
Head and 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 Ngai Ming 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, and Member of the Hong Kong Academy of Sciences are some of the representative ones. He appreciates the aesthetics of mathematics, which young intellectuals will find his “mathematics-as-life” attitude enlightening.

**Professor Michael NG**
Chair Professor of Department of Mathematics

Professor Ng’s research interests lie in artificial intelligence, data science and scientific computing, which are crucial for shaping the future of human life. He is the Associate Director of Muskeeters Foundation Institute of Data Science, and a recipient of the Feng Kang Prize of Scientific Computing. Setting his vision far and wide, he is the pilot for the development of research in Mathematical and Statistical Science in the Faculty. Nonetheless, Professor Ng is no ordinary scholar — he is among the inspiring ones who would share thoughts and experiences beyond academic knowledge.

**Professor Alice Sze Tsai WONG**
Associate Vice-President (Research)
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 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.

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, 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).
◆ 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 - 2021. 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, Nishina Asia Award and Founding Member of Hong Kong Young Academy of Sciences.

◆ 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 8 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:

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<tr>
<th>EN Language</th>
<th>Chinese Language</th>
<th>Mathematics</th>
<th>Liberal Studies</th>
<th>Elective subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 3</td>
<td>Level 3</td>
<td>Level 4</td>
<td>Level 2</td>
<td>Level 3 (2 Science or 1 Science+M1/M2)</td>
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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.

Further Information

Programme link: bit.ly/3kTpr7M
Useful Information:
HKU Undergraduate Admissions
www.aal.hku.hk/admissions
Incubating the next generation of scientists