

SCIENCE MAJORS

in BSc Curricula 2027-28

6901

Bachelor of Science
240 credits in 4 years

6858

**Bachelor of Science &
Bachelor of Laws**
300 credits in 5 years

6688

**Bachelor of Science &
Master of Research
(Science Master Class)**
303 credits in <4.5 years

10 Regular
Majors
and 7 Intensive
Majors



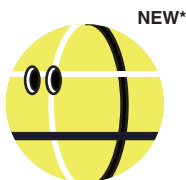
Biochemistry



Biological Sciences



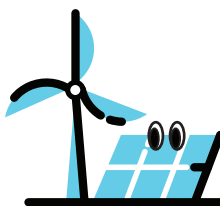
Chemistry



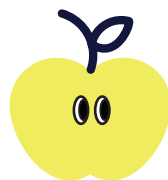
Earth & Planetary
Sciences



Ecology &
Biodiversity



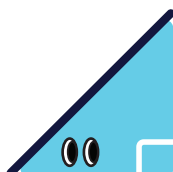
Environmental
Science



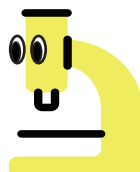
Food & Nutritional
Science



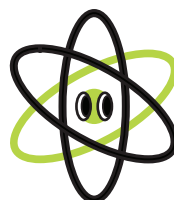
Geology



Mathematics



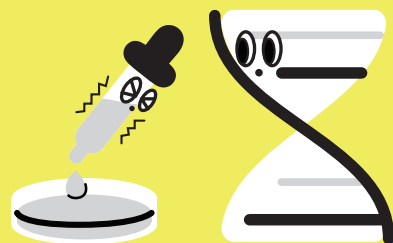
Molecular Biology &
Biotechnology



Physics

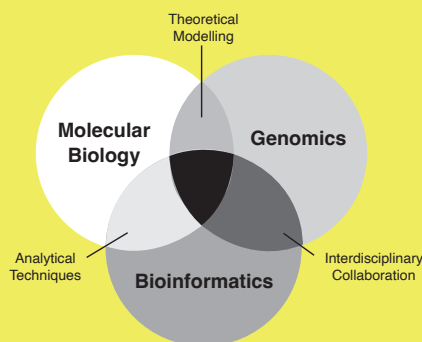
BIOCHEMISTRY

Major Minor



The Biochemistry Major provides students with a thorough grounding in contemporary biochemistry and molecular biology. Combining core and elective courses with experiential learning, this programme equips students with the critical thinking, analytical skills, and practical experience needed to excel in scientific and medical fields.

Studying Biochemistry



This Major is designed to provide students with both basic and advanced knowledge in modern biochemistry and molecular biology. Our goal is to develop and equip students with enough critical thinking and analytical skills so that they can embark on a career in biochemical sciences.

Major Highlights

- ▶ Core courses in the curriculum emphasise equipping students with a general understanding of the fundamental ideas, principles and theories of biochemistry
- ▶ Elective courses extend this core knowledge to provide students with specialised insight into both basic and applied scientific endeavour in
 - Biochemistry
 - Bioinformatics
 - Molecular medicine
 - Molecular genetics
- ▶ Throughout the curriculum, there is an emphasis on experiential learning through laboratory practicals, problem-solving exercises, group-based learning, industrial experience, overseas exchange and research-based projects.

Curriculum

Major in Biochemistry (96 credits)

Offers students a comprehensive degree-level education in biochemistry, catering to careers in the science, health, and education sectors, as well as research opportunities in biomedicine.

Hear from Our Student

"This Major provided the academic foundation for my research journey. With a strong emphasis on molecular biology, protein biochemistry and chemical biology, the curriculum offered me insights into the molecular mechanisms of various physiological processes and diseases. Its unique capstone research opportunity further enabled me to undertake a year-long research project at the School of Public Health, where I was mentored by Professor Michael Chan while studying virus-host interaction using respiratory organoid models. Together, these experiences prepared me for my current DPhil in Biochemistry at the University of Oxford, where I focus on glycobiology, mass spectrometry and infectious disease."



Chung Hin WONG

BSc graduate
(major in Biochemistry)

PhD student
at the University of Oxford

Career Prospects

Over half of our Biochemistry graduates have entered the commercial world and become business professionals, while approximately a third have found employment in occupations related to science, biotechnology and healthcare. Some of our graduates are employed in the education sector, or have become scientific personnel in hospitals and tertiary institutions. A small group of graduates have joined the Civil Services. Each year, a significant number of students take up postgraduate studies and pursue a career in advanced scientific and medical research.

Industry

- ▶ Biotechnology Research Scientist
- ▶ Pharmaceutical Development Specialist

Commercial

- ▶ Business Development
- ▶ Manager Healthcare Consultant

Government

- ▶ Environmental Health Officer
- ▶ Scientific Advisor

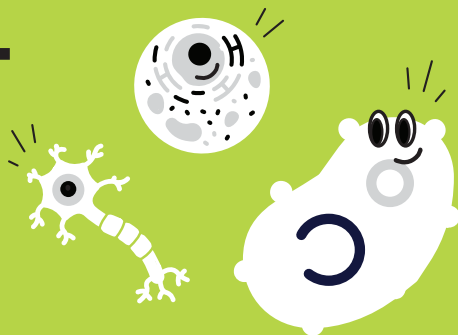
Education

- ▶ High School Biology or Chemistry Teacher
- ▶ College Professor

Postgraduate Studies

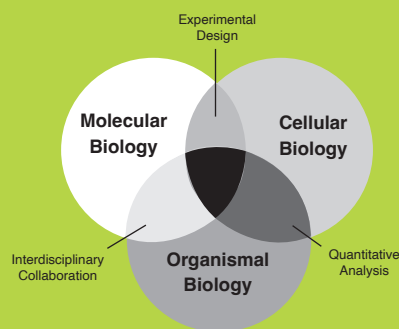
BIOLOGICAL SCIENCES

Major Major (Intensive)



From the smallest cells to entire ecosystems, Biological Sciences explore the complexity of life, the biological processes of living organisms and their interactions with the environment. It is an essential field that contributes to advancements in various areas, such as medicine, biotechnology, genetics, and ecology.

Studying Biological Sciences



This Major is designed for students seeking a broad-based training in modern biology. Students are guided in an inquiry-driven learning environment to appreciate the major biological systems at different levels of biological organisation.

Major Highlights

- ▶ Teaching emphasises both core concepts and applied aspects in biological sciences
- ▶ Senior students are further exposed to and will undertake experiential learning activities in three fundamental areas:
 - Genetics, molecular and cell biology
 - Ecology, systematics and evolution
 - Physiology and organismic biology

Curricula

To cater for students' different needs, two curricula in Biological Sciences are offered:

Major in Biological Sciences (96 credits)

Provides students with the opportunity to expand their knowledge in other disciplines

Major in Biological Sciences (Intensive) (144 credits)

For students with a strong desire to acquire knowledge with sufficient depth and breadth in the field

Accreditation:

The Intensive Major has been accredited by the *Royal Society of Biology (RSB)*, UK



Hear from Our Student

"Studying Biological Sciences at HKU has profoundly enriched my understanding and sparked my curiosity about the biological world. This experience has inspired me to educate and nurture the next generation in this fascinating field. Through theoretical courses, engaging hands-on labs and field trips, I have gained a deep understanding of marine biology. The Summer Research Fellowship provided invaluable opportunities to conduct research with outstanding professors and connect with like-minded peers. These experiences have laid a solid foundation for my academic career in education."



Wing Ki CHONG

BSc graduate (major in Biological Sciences)

Career Prospects

Our Biological Sciences graduates possess a strong foundation in the principles and practical skills of the field. The transferable skills they acquire through theoretical and experimental investigations can be applied to a variety of career paths, including research and development, healthcare, environmental conservation, education, and more.

Industry

- ▶ Medical Laboratory Technologist
- ▶ Biotech Research Associate

Government

- ▶ Biologist at Agriculture, Fisheries and Conservation Department, Environmental Protection Department
- ▶ Officer at Food and Environmental Hygiene Department

Commercial

- ▶ Market Research Analyst at Pharmaceutical Company
- ▶ Quality Control Analyst

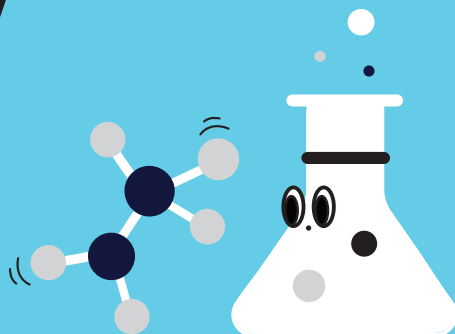
Education

- ▶ High School Biology Teacher
- ▶ College Biology Professor

Postgraduate Studies

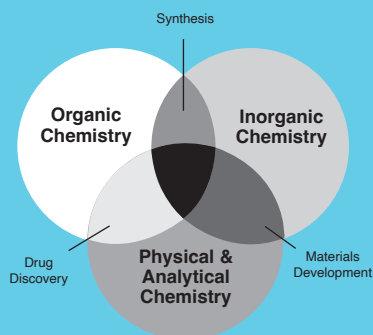
CHEMISTRY

Major Major (Intensive) Minor



Chemistry is the fundamental scientific discipline that examines the nature of matter and its ever-evolving transformations. It serves as a catalyst for advancements in various fields, such as materials science, pharmaceutical development, sensor technology, and alternative energy exploration.

Studying Chemistry



By pursuing Chemistry, you will not only acquire in-depth knowledge of the subject matter, but also hone a wide range of valuable skills, including numerical and analytical proficiency, research acumen, and the ability to solve complex problems.

Major Highlights

- ▶ Solid training in major areas of chemistry
- ▶ Core courses covering physical, inorganic, organic, and analytical chemistry
- ▶ Wide selection of electives in interdisciplinary areas, including:
 - Chemical biology, computational chemistry, environmental chemistry, materials chemistry, and medicinal chemistry

Curricula

To cater for students' different needs, two curricula in Chemistry are offered:

Major in Chemistry (96 credits)

Allows students to broaden their education in other areas

Major in Chemistry (Intensive) (144 credits)

For students who wish to specialise in chemistry

Accreditation:

The Intensive Major has been accredited by the *Royal Society of Chemistry (RSC)*, UK



Hear from Our Student

"HKU's Intensive Major in Chemistry provided what I needed: a strong foundation, advanced electives aligned with my goals, and extensive labs that built rigorous experimental and analytical skills. The capstone enabled an independent flow electrocatalysis project, from design to analysis and presentation, mirroring real research. With career guidance, I moved into nuclear medicine. I now help establish the Hospital Authority's first cyclotron and radiopharmacy, demonstrating how this major translates into impactful careers."



Yui Pong WONG

BSc graduate
(major in Chemistry)

Career Prospects

Our graduates are proficient in the principles and experimental skills of chemistry, and are well-versed in the current development of chemical sciences. The transferable skills acquired through theoretical and experimental investigations in sciences can be easily applied to many aspects of life.

Industry

- ▶ Analytical Chemist
- ▶ Quality Control Chemist

Government

- ▶ Laboratory Chemist
- ▶ Forensic Scientist
- ▶ Scientific Officer
- ▶ Research Officer

Commercial

- ▶ Business Development Trainee for Chemicals
- ▶ Market Research Analyst for Chemicals

Education

- ▶ High School Chemistry Teacher
- ▶ College Chemistry Professor

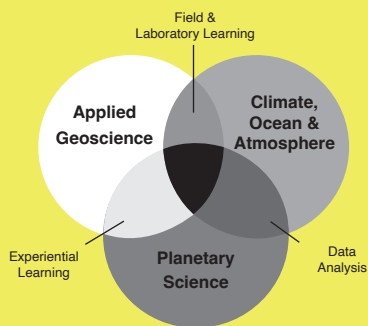
Postgraduate Studies

EARTH & PLANETARY SCIENCES NEW*

Major

Earth & Planetary Sciences is an interdisciplinary field that employs principles from physics, chemistry, and biology to study the nature and evolution of the Earth and other planetary bodies. It encompasses a diverse range of topics from natural resources to natural disasters, climate change, and the origin and evolution of planets and life.

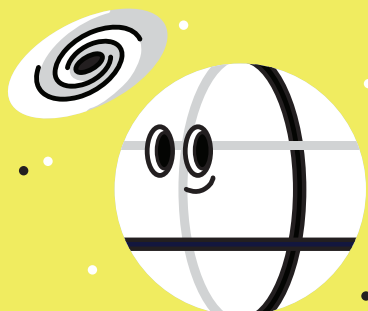
Studying Earth & Planetary Sciences



This Major offers a modern curriculum designed to provide students with fundamental training in Earth and planetary sciences. The technical skills acquired by the student through field and laboratory work, computer programming, machine learning, and big data analysis will equip them for diverse professional careers or advanced research.

Major Highlights

- Core courses establish a comprehensive foundation across the geosphere, atmosphere, hydrosphere, and biosphere, while equipping students with essential technical skills
- Elective courses extend this core knowledge to provide students with specialised expertise in three themes:
 - Applied geoscience
 - Climate, ocean and atmosphere
 - Planetary science



Curriculum

Major in Earth & Planetary Sciences (96 credits)

Provide students with the flexibility to design a personalised curriculum that aligns with their academic interests and career objectives

Hear from Our Student

"Majoring in Earth System Science completely reshaped my life philosophy. Exploring the intricate connections between the atmosphere, hydrosphere, geosphere, biosphere, and anthroposphere, the major built a comprehensive worldview. Integrating hands-on observations, laboratory data analysis and overseas fieldwork sharpened my scientific reasoning skills, linking micro-scale reactions to macro-scale global systems across immense temporal scales. HKU's flexibility also allowed me to connect diverse electives to my major, truly deepening my planet-wide understanding."



Ho Ling Holly CHAN
BSc graduate (major in Earth System Science)

Career Prospects

Graduates of the Earth & Planetary Sciences Major possess a deep understanding of the field and a broad range of transferrable skills. The expertise opens doors to careers in resource management, natural hazard mitigation, green industries, and education. The transferrable skills also enable them to excel in various sectors.

Industry

- Engineering Geologist
- Environmental Geologist
- Hydrologist

Government

- Natural Resource Specialist
- Land Use Planner

Postgraduate Studies

Commercial

- Environmental Compliance Specialist
- Geospatial Analyst
- Renewable Energy Consultant

Education

- High School Earth Science Teacher
- College Earth & Planetary Science Professor

*Subject to approval

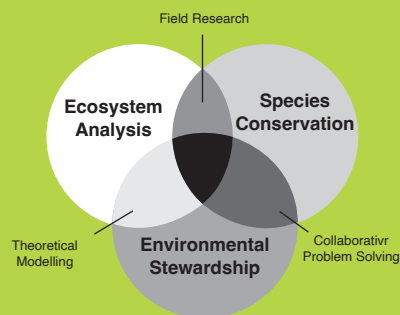
ECOLOGY & BIODIVERSITY

Major Major (Intensive) Minor



Ecology & Biodiversity encompasses the intricate relationships between organisms and their environments, the diversity of species across the globe, and the critical challenges and strategies for conserving biodiversity. By unravelling complex ecosystem interactions, it supports sustainable stewardship and contributes to our planet's health and balance.

Studying Ecology & Biodiversity



By studying ecological processes, biodiversity patterns, and sustainable management strategies, students will acquire various skills, including critical reasoning, quantitative analysis, and the ability to collaborate across disciplines. The knowledge and expertise gained in this Major enable students to address and mitigate environmental challenges effectively.

Major Highlights

- ▶ Core courses covering three key areas, with special reference to Hong Kong and Asian aquatic and terrestrial flora and fauna:
 - Evolution and diversity of life forms on Earth and their habitual diversity
 - Interactions of organisms with each other and their environments
 - Threats and approaches for biodiversity conservation and sustainable management
- ▶ Senior students are further exposed to applied or specialised topics of different ecosystems via fieldwork experience and the use of quantitative and experimental methods

Curricula

To cater for students' different needs, two curricula in Ecology & Biodiversity are offered:

Major in Ecology & Biodiversity (96 credits)

Allows students to explore a multitude of subjects, fostering their growth in both academic and professional areas

Major in Ecology & Biodiversity (Intensive) (144 credits)

Provides thorough training for students with a strong interest in the field and aiming for specialised careers

Accreditation:

The Intensive Major has been accredited by the *Royal Society of Biology (RSB)*, UK



Career Prospects

As the urgency to safeguard the natural environment and biological resources intensifies, Ecology & Biodiversity graduates take on a vital role in shaping policy formulation, decision-making processes, and finding innovative solutions to environmental issues. The versatility of their acquired knowledge and skills enables them to excel in various career paths, including education, research, and conservation, among others.

Industry

- ▶ Wildlife Habitat Restoration Specialist
- ▶ Environmental Consultant

Government

- ▶ Officer at Agriculture, Fisheries and Conservation Department, Environmental Protection Department
- ▶ Natural Resource Manager

Hear from Our Student

"My undergraduate experience in Ecology and Biodiversity opened my eyes to the mechanisms of nature and ecosystems, which has made me feel much more in touch with Hong Kong as a city and the world as a whole. More importantly, learning about ecological theories in class and having the opportunity to apply different cutting-edge research methods in the lab helped me discover my passion for research and set my career path."



Portia Yeuk Hang WONG

BSc graduate (major in Ecology & Biodiversity)

Commercial

- ▶ Sustainable Business Consultant
- ▶ Corporate Social Responsibility Advisor

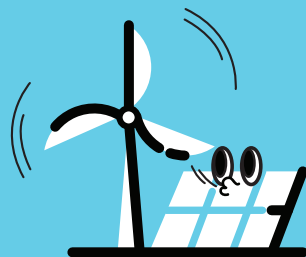
Education

- ▶ High School Biology Teacher
- ▶ College Ecology & Biodiversity Professor

Postgraduate Studies

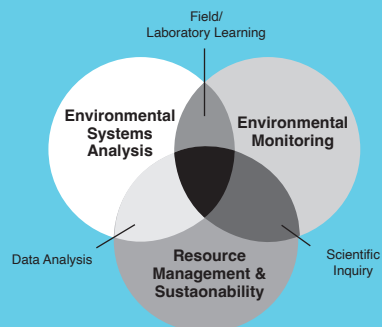
ENVIRONMENTAL SCIENCE

Major Minor



Environmental Science is an interdisciplinary field that combines various scientific disciplines to address complex environmental challenges. It offers a comprehensive perspective on pressing environmental issues and equips individuals with the expertise to develop effective solutions, contributing to a more sustainable future for the planet.

Studying Environmental Science



This interdisciplinary Major emphasises fundamental environmental knowledge and provides students with a solid scientific background and an understanding of the processes that sustain life on Earth. Students are guided to explore environmental issues from both a science and management perspective, with an opportunity to engage in hands-on research and delve into sustainability concepts.

Major Highlights

- ▶ Flexible programme design comprising experiential learning of independent research, field trips and allowing exploration of various environmental issues, such as physical and sustainable environment, pollution, monitoring and management
- ▶ Students following the accredited pathway will gain expertise in
 - Environmental science
 - Environmental management
 - Environmental impact assessment
 - Sustainability

Curriculum

Major in Environmental Science (96 credits)

Supports students in broadening their knowledge across different fields

Accreditation:

The Major has been accredited by the *Hong Kong Institute of Qualified Environmental Professionals (HKIQEP)*



Hear from Our Student

"Studying Environmental Science has allowed me to explore the beauty of our planet. The Major's flexibility has enabled me to choose from a variety of courses, tailoring my studies to my interests. In addition to lectures, my knowledge and skills have been strengthened through field trips, labs, and projects. During my capstone, I had the opportunity to participate in a local research project that focused on stream conservation, allowing me to make a positive impact in the real world."



Shuk Kwan CHEUNG

BSc graduate (double major in Environmental Science and Molecular Biology & Biotechnology)

Career Prospects

Environmental Science graduates excel in addressing global environmental and sustainability challenges. Their expertise is sought-after in areas like ESG evaluation, consultancy, resources management, conservation, and education. Their transferable skills make them valuable assets across various sectors, primed for leadership roles.

Industry

- ▶ Environmental Consultant
- ▶ Environmental Engineer
- ▶ Sustainability Consultant

Government

- ▶ Environmental Policy Advisor
- ▶ Environmental Officer

Postgraduate Studies

Commercial

- ▶ Environmental Risk Assessor
- ▶ Green Building Consultant
- ▶ Environmental, Social & Governance Specialist

Education

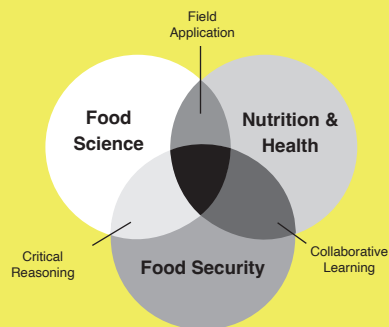
- ▶ Conservation Researcher
- ▶ College Environmental Science Professor
- ▶ Environmental Educator

FOOD & NUTRITIONAL SCIENCE

Major **Minor**

Food & Nutritional Science is a vital field studying food and its impact on human health and well-being. Bridging science and society, it explores interactions between food, nutrition, health, and the environment. Contributing to advancements in public health, food technology, and sustainability, this field offers a dynamic platform for addressing global challenges and shaping our food and health future.

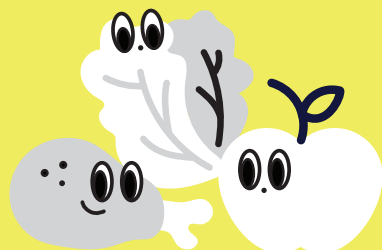
Studying Food & Nutritional Science



This Major offers students an understanding of theoretical and practical aspects of food science, technology, and nutrition concerning human health, as well as the connection between food and various factors. Students will cultivate transferable skills such as experimental design, interdisciplinary collaboration, analytical thinking, and problem-solving for addressing complex issues.

Major Highlights

- ▶ A progressive programme delving into a wide array of disciplines, including:
 - Genetics, sustainability, security, chemistry, microbiology, safety, product development, commodities, toxicology, nutraceuticals, physiology, diet, nutrition, public health, etc.
- ▶ A curriculum meeting the requirements for higher degree in MPhil and PhD and or the taught Master of Science degrees in the fields of:
 - Food industry: Management and Marketing
 - Food Safety and Toxicology



Curriculum

Major in Food & Nutritional Science (96 credits)

Bestows students with the liberty to study other disciplines, enriching their educational experience

Hear from Our Student

"This Major offers much more than lectures and exams. It provides many hands-on experiences that strengthen both knowledge and skills in food and nutritional science, which have helped me secure multiple overseas research and internship opportunities. Moreover, through group projects, presentations, seminars, practical laboratory sessions, and a research capstone project, I have learnt to apply concepts in real-world situations and to work confidently with others. These experiences help students develop important technical and communication skills, preparing them for future professional and academic careers in food and nutrition."



Ezekiel Theophano JAPSON

BSc graduate
(major in Food & Nutritional Science)

Career Prospects

Our graduates capitalise on Hong Kong's robust food industry, securing positions in local and multinational organisations, government departments, and laboratories. They excel as nutritionists, quality assurance officers, and research and development officers. Furthermore, pursuing advanced degrees enables these graduates to attain professional dietitian status.

Industry

- ▶ Food Safety Specialist
- ▶ Dietitian
- ▶ Nutritionist

Government

- ▶ Public Health Nutritionist
- ▶ Food Standards and Regulations Officer

Commercial

- ▶ Food Quality Control Manager
- ▶ Research & Development
- ▶ Food and Nutrient Product Developer

Education

- ▶ College Nutrition and Dietetics Professor
- ▶ Research Scientist in Food and Nutritional Science

Postgraduate Studies



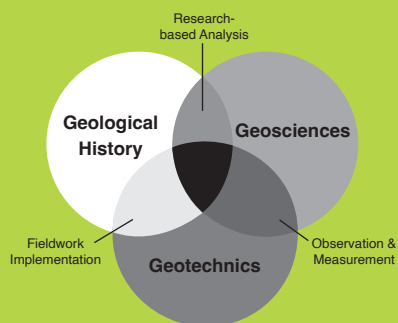
GEOLOGY

Major (Intensive)



Geology, anchored in the study of Earth's structure, materials, processes and history, is critical to navigating our dynamic planet. Its reach spans from modelling environmental transformations to natural resource management and hazard mitigation. Geologists harness this knowledge to refine our understanding of Earth's processes, aiming to enhance human life quality.

Studying Geology



The Major provides students with a solid foundation in geological sciences, enabling the development of analytical and technical skills in fieldwork and research, such as the capability to produce professional-level geological maps and reports. Through participation in overseas field camps, students gain practical experience and broaden their understanding of global geological contexts.

Major Highlights

- ▶ Comprehensive core curriculum encompassing key geoscience subdisciplines, including:
 - Mineralogy, petrology, sedimentology, geochemistry, geophysics, structural geology, plate tectonics, etc.
- ▶ Elective courses in specialised areas such as:
 - Mineral resources, hydrogeology, and engineering geology
- ▶ Practical experience through fieldwork, with opportunities to attend 3-4 overseas field camps

Curriculum

Major in Geology (Intensive) (144 credits)

Offers extensive training in the field for students aspiring to advanced studies or specialised careers

Accreditation:

The Intensive Major (Accredited Pathway) is accredited by the *Geological Society of London, UK*



Hear from Our Student

"The Intensive Geology Major at HKU features a unique combination of overseas field trips from Hong Kong to Asia and the Americas, as well as hands-on laboratory experience with minerals, rocks, and fossils. Students gain a holistic understanding of our Earth's evolution, supported by state-of-the-art research facilities and guidance from esteemed professors. The accreditation by the Geological Society of London ensures a well-rounded curriculum that provides sufficient fieldwork and practical training, equipping graduates with the expertise necessary to thrive in multifaceted geoscience careers locally and internationally."



Morris CHAN

BSc graduate (major in Geology (Intensive))

Career Prospects

Graduates of this Major possess a strong foundation in geological principles and practical skills, with diverse career prospects in infrastructure development, natural hazard management, and resource industries. The demand for geologists remains high due to large-scale construction projects and the need for better environmental management.

Industry

- ▶ Engineering Geologist
- ▶ Natural Resources Geologist

Government

- ▶ Geological Surveyor
- ▶ Earthquake Monitoring Specialist

Postgraduate Studies

Commercial

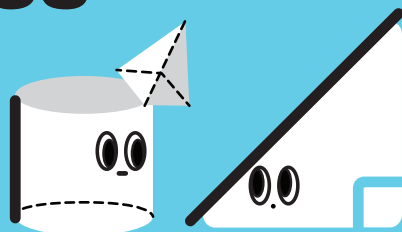
- ▶ Geospatial Analyst
- ▶ Geoscience Data Manager

Education

- ▶ High School Geology Teacher
- ▶ College Geology Professor

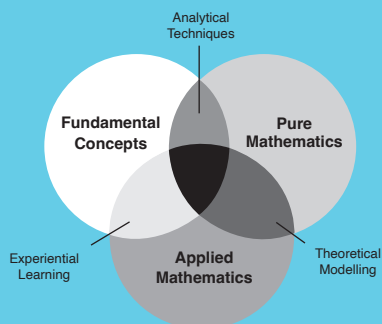
MATHEMATICS

Major Major (Intensive) Minor



Mathematics is a universal language that underpins many aspects of life, encapsulating the precision and logic found in nature and the universe. It is a fundamental discipline that cultivates quantitative reasoning, problem-solving abilities, and analytical thinking. Mathematics forms the core of numerous scientific fields, driving innovation in sectors such as technology, finance, logistics, and education.

Studying Mathematics



Studying Mathematics provides students with a comprehensive understanding of the subject, encompassing both fundamental concepts and diverse specialisations. Through this Major, students will cultivate valuable skills such as quantitative reasoning, analytical and critical thinking, problem-solving, and the ability to tackle novel situations and ill-defined problems.

Major Highlights

- Core courses in the curriculum emphasise fundamental knowledge and concepts in Mathematics, and elective courses provide training in both pure and applied aspects of Mathematics
- Consistent emphasis on experiential learning through guided studies, projects, seminars and summer internships

Curricula

To cater for students' different needs, two curricula in Mathematics are offered:

Major in Mathematics (96 credits)

Provides students with the flexibility to design a personalised curriculum which promotes intellectual curiosity

Major in Mathematics (Intensive) (144 credits)

Offers students a drive to achieve proficiency and comprehensive knowledge in the field

Hear from Our Student

"At the time of entering HKU, I had no intention of exploring the obscure language of pure mathematics, nor had I anticipated pursuing a PhD degree after graduation, for at that time, my mathematics ability was quite mediocre among my peers. I owe such profound transformation and my deepest thanks to the nurturing environment of the Department of Mathematics and to the professors who had been helpful and patient to a curious, ambitious, yet sometimes ignorant undergraduate student."

Xun TANG

BSc graduate (major in Mathematics (Intensive))



- Participant of the Undergraduate Research Fellowship Programme at the University of California, Berkeley
- PhD student at Stanford University ICME

Career Prospects

Our Mathematics graduates are equipped with versatile skills that open the door to various sectors, including commerce, information technology, public organisations, and education. Many graduates also pursue further studies, showcasing the breadth of opportunities available with a solid foundation in Mathematics.

Industry

- Data Analyst
- Cryptographer

Government

- Actuary for Government Insurance
- Budget Analyst

Postgraduate Studies

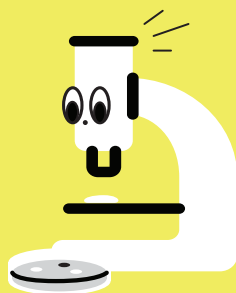
Commercial

- Investment Strategist
- Quantitative Market Researcher

Education

- High School Mathematics Teacher
- College Mathematics Professor

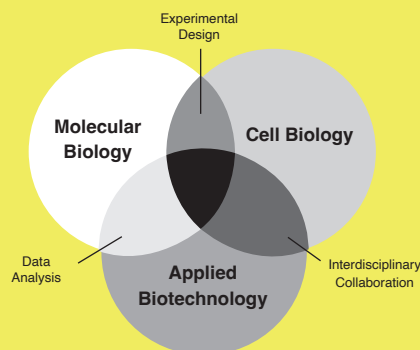
MOLECULAR BIOLOGY & BIOTECHNOLOGY



Major **Major (Intensive)** **Minor**

Molecular Biology & Biotechnology has emerged as cornerstones of 21st-century science, solving critical challenges and enabling transformative real-world applications. This dynamic programme immerses students in the cutting-edge frontier, cultivating expertise to drive scientific progress and harness the immense potential of these transformative fields.

Studying Molecular Biology & Biotechnology



This Major is designed for students seeking specialised training in molecular and cell biology with a focus on industrial and medical applications. Students will be guided to further develop various essential skills in molecular biology and biotechnology through hands-on laboratory training and experimental-based projects.

Major Highlights

- ▶ The programme covers a diverse range of cutting-edge Molecular Biology & Biotechnology applications, including:
 - Bioactive substances
 - Genetic engineering for agriculture and aquaculture
 - Biomedical research and pharmaceuticals
 - Biofuels, bioremediation, and wastewater treatment
- ▶ A feature of this Major is to provide key transferable skills by engaging students in inquiry, critical thinking, and problem-solving in their learning

Curricula

To cater for students' different needs, two curricula in Molecular Biology & Biotechnology are offered:

Major in Molecular Biology & Biotechnology (96 credits)

Provides students with the opportunity to expand their knowledge in other disciplines

Major in Molecular Biology & Biotechnology (Intensive) (144 credits)

For students with a strong desire to acquire knowledge with sufficient depth and breadth in the field

Accreditation:

The Intensive Major (Accredited Pathway) is accredited by the *Royal Society of Biology (RSB), UK*



International
Accredited
Degree

Hear from Our Student

"This Major offers specialised training in state-of-the-art molecular and cell biology and in the translation of basic knowledge into modern industrial and medical applications. I was given research opportunities to work in the animal lab, where stationed veterinarians were responsible for ensuring that animal welfare and practices were up to standard for good science to be conducted. It made me aware of the broad range of roles that a veterinary surgeon could take and made this career path more appealing."



Jason WONG

BSc graduate (major in Molecular Biology & Biotechnology)

Career Prospects

Our Molecular Biology & Biotechnology graduates pursue diverse career paths, from government departments and the commercial biotechnology and pharmaceutical sector to research facilities and advanced graduate studies in specialised areas of the field.

Industry

- ▶ Research & Development Scientist
- ▶ Medical Technologist

Government

- ▶ Business and Management Analyst
- ▶ Product Consultant

Education

- ▶ High School Biology Teacher
- ▶ College Biology Professor

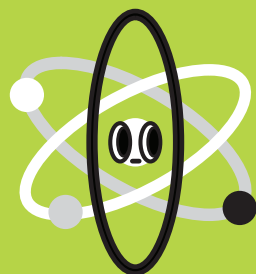
Commercial

- ▶ Scientific Officer at Agriculture, Fisheries and Conservation Department, Environmental Protection Department and Hospital Authority
- ▶ Research Assistant

Postgraduate Studies

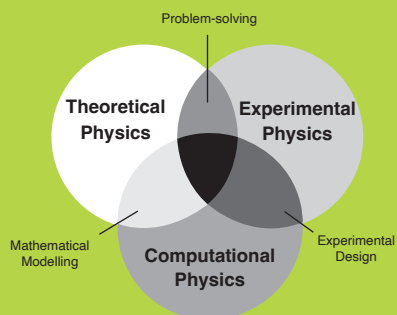
PHYSICS

Major Major (Intensive) Minor



Physics is a critical branch of science that studies the fundamental laws and principles that dictate the behaviour of matter and energy. From developing new technologies to understanding the motion of celestial bodies, it plays a crucial role in advancements in fields like engineering, electronics, astrophysics, and renewable energy, enabling us to understand and manipulate the physical world around us.

Studying Physics



A background in physics is invaluable for a comprehensive understanding of the functioning of emerging technologies and for facilitating their optimal utilisation. Extensive research has consistently demonstrated the significant importance of a physics education across numerous professional domains. This is primarily because physics education fosters the development of transferable skills that have broad applicability in a diverse range of career paths.

Major Highlights

- ▶ Physics curricula are comprehensive and condensed
- ▶ Students can find courses that cover small scale particle physics to large scale cosmology
- ▶ The subject matter is intriguing and diverse, offering a range of topics to explore:
 - Disciplinary core: quantum mechanics, statistical mechanics, classical mechanics, electrodynamics, etc.
 - Disciplinary electives: astrophysics, computational physics, experimental physics, theoretical physics, etc.

Curricula

To cater for students' different needs, two curricula in Physics are offered:

Major in Physics (96 credits)

Provides flexibility for students to pursue their academic and professional interests, abilities, and career aspiration

Major in Physics (Intensive) (144 credits)

Provides comprehensive physics training for students pursuing further studies and specialised careers in science and technology

Hear from Our Student

"HKU's rigorous curriculum and diverse hands-on research opportunities prepared me exceptionally well for my subsequent academic endeavours. The welcoming environment created by the faculty has been incredibly supportive of students pursuing new ideas. I am truly grateful for the encouraging Faculty and the vibrant academic community that inspired and challenged me every step of the way."



Hong Tsun Thomas WONG

BSc graduate (double major in Physics and Astronomy)

- Master of Philosophy in Physics
- PhD student in Physics at UC San Diego

Career Prospects

Physics graduates possess both professional scientific qualifications and a broad range of transferable skills, including problem-solving, technical writing, creative thinking, research methodology, IT application, and analytical thinking. Such skills are highly sought after in many employment domains, particularly those that are technology-based, and not limited to scientific roles in industry or government laboratories.

Industry

- ▶ Optical Engineer
- ▶ Semiconductor Device Engineer
- ▶ Software Engineer

Government

- ▶ Research Physicist
- ▶ Energy Specialist

Postgraduate Studies

Commercial

- ▶ Business Development Trainee for Technology Companies
- ▶ Market Research Analyst for Technology Products

Education

- ▶ High School Physics Teacher
- ▶ College Physics Professor
- ▶ STEAM Programme Director

Majors

Biochemistry
Biological Sciences
Biological Sciences (Intensive)
Chemistry
Chemistry (Intensive)
Earth & Planetary Sciences*
Ecology & Biodiversity
Ecology & Biodiversity (Intensive)
Environmental Science
Food & Nutritional Science
Geology (Intensive)
Mathematics
Mathematics (Intensive)
Molecular Biology & Biotechnology
Molecular Biology & Biotechnology (Intensive)
Physics
Physics (Intensive)

Minors

Astronomy
Biochemistry
Chemistry
Computational & Financial Mathematics
Earth Sciences
Ecology & Biodiversity
Environmental Science
Food & Nutritional Science
Marine Biology
Mathematics
Molecular Biology & Biotechnology
Operations Research & Mathematical Programming
Physics
Science Entrepreneurship

*Subject to approval

Faculty of Science

 <https://www.scifac.hku.hk/>
 (852) 3917 2683  sci.ug.admission@hku.hk

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