



Faculty of Science

Available Major and Minor Options (Quick Glance)

(For Non-Science Faculty Students)

Majors	Minors
<ul style="list-style-type: none">• Astronomy• Biochemistry• Biological Sciences• Chemistry• Decision Analytics• Earth System Science• Ecology & Biodiversity• Environmental Science• Food & Nutritional Science• Geology• Mathematics• Mathematics/Physics• Molecular Biology & Biotechnology• Physics• Risk Management• Statistics	<ul style="list-style-type: none">• Actuarial Studies• 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• Plant Science• Risk Management• Statistics

For details, please refer to individual factsheets.



Faculty of Science Actuarial Studies

Offered As:	✓ Minor
*Open to students of other Faculties:	✓
What is it about?	The Minor in Actuarial Studies aims to provide interested students with an introduction to the basic concepts and methodologies in Actuarial Science.
Offering Department:	Offered by the Department of Statistics and Actuarial Science

Pre-requisites and/or other conditions for declaring the major/minor:	<i>Minor:</i> Please refer to the course prerequisites of the required courses. For details, please check with the Department of Statistics and Actuarial Science.
Career opportunities:	The minor curriculum is designed particularly for students from different majors to enhance their interests in Actuarial Science and to strengthen their confidence and potential in solving mathematical, financial, economical and investment-related problems. For details, please check with Faculty or CEDARS (Careers & Placement).
Further information:	<i>Minor:</i> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInActuarialStudies&AdmissionYear=2017
Contact:	E: saas@hku.hk T: 3917 2466

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Faculty of Science Astronomy

Offered As:	✓ Major	✓ Minor
*Open to students of other Faculties:	✓	
What is it about?	<p>The 21st century is the golden age for astronomy as space-based telescopes are being used to explore the Universe in all parts of the electromagnetic spectrum, including X-ray, ultraviolet, and infrared. The Major in Astronomy is intended for the students who would like to acquire a solid foundation on the subject. A large selection of elective courses is provided for students to pursue their interested specialization in the subject, including observational astronomy, planetary science, stellar physics, and interstellar medium. Students will attain professional knowledge in astronomy, research experience and the training of analytical thinking and quantitative reasoning during their studies.</p> <p>As for the Minor in Astronomy, it is intended to provide interested students with a fundamental outlook on the subject. Students would acquire a taste of the subject through a large selection of elective courses to allow them to pursue their interests in the subject and to establish connections between the field of astronomy and other science disciplines.</p>	
Offering Department:	Offered by the Department of Physics	

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses.</p> <p><u>Minor:</u> Please refer to the course prerequisites of the required courses.</p> <p>For details, please check with the Department of Physics.</p>
Career opportunities:	<p>In addition to preparing students for postgraduate studies as professional astronomers, astronomy training can lead to local careers in museums, weather services, and the education sectors. Beyond Hong Kong, Astronomy graduates have challenging careers in aerospace, communications, energy, and computer industries, as well as in astronomical observatories and space research centres.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInAstronomy&AdmissionYear=2017</p> <p><u>Minor:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInAstronomy&AdmissionYear=2017</p>
Contact:	<p>E: physdept@hku.hk T: 2859 2360</p>

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Faculty of Science Biochemistry

Offered As:	✓ Major	✓ Minor
*Open to students of other Faculties:	✓	
What is it about?	<p>The Major in Biochemistry aims to provide students with both basic and advanced knowledge in contemporary biochemistry and molecular biology. Core courses in the curriculum emphasize equipping students with a general understanding of the fundamental ideas, principles and theories of biochemistry with particular focus on the relevance of biochemistry, molecular biology and genomics to biology, human health and disease. Elective courses extend this core knowledge to provide students with specialized insight into both basic and applied scientific endeavour in biochemistry, bioinformatics, molecular biology and molecular genetics.</p> <p>As for the Minor in Biochemistry, it is designed to provide students from all backgrounds with a multidisciplinary perspective on contemporary biochemistry and molecular biology. This minor curriculum incorporates significant flexibility to allow students to select courses that will complement the individual student's Major.</p>	
Offering Department:	Offered by the School of Biomedical Sciences	

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses.</p> <p><u>Minor:</u> Please refer to the course prerequisites of the required courses.</p> <p>For details, please check with the School of Biomedical Sciences.</p>
Career opportunities:	<p>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. These experiences are designed to develop students' ability to read and interpret scientific data, to integrate knowledge with wider scientific theory, and to improve logical thinking and communication skills. The ultimate goal is to provide a comprehensive degree-level biochemistry education that equips students with the critical thinking, communication and analytical skills essential for them to play a leading role in society in the future.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInBiochemistry&AdmissionYear=2017</p> <p><u>Minor:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInBiochemistry&AdmissionYear=2017</p>
Contact:	<p>E: sbms@hku.hk T: 3917 9240</p>

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Faculty of Science Biological Sciences

Offered As:	✓ Major	
*Open to students of other Faculties:	✓	
What is it about?	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 organization. Teaching emphasizes both core concepts and applied aspects in biological sciences. The programme is highly flexible as students can select courses according to their own interests from a wide spectrum of elective courses. At the advanced level, students are further allowed to specialize in areas such as microbiology, genetics & cytology, physiology & homeostasis, or diversity of life & environmental biology and undertake experiential learning activities.	
Offering Department:	Offered by the School of Biological Sciences	

Pre-requisites and/or other conditions for declaring the major/minor:	<i>Major:</i> Please refer to the course prerequisites of the required courses. For details, please check with the School of Biological Sciences.	
Career opportunities:	The diverse learning experience exposes students to problem-based learning, and an exciting array of laboratory and field techniques. Students will also be able to acquire valuable transferable skills in analysis, organization and communication. The Biological Sciences Major applies modern scientific inquiry to prepare graduates for employment as professionals in a variety of careers or for postgraduate study. For details, please check with Faculty or CEDARS (Careers & Placement).	
Further information:	<i>Major:</i> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInBiologicalSc&AdmissionYear=2017	
Contact:	E: biosch@hku.hk T: 2299 0800	

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Faculty of Science Chemistry

Offered As:	✓ Major	✓ Minor
*Open to students of other Faculties:	✓	
What is it about?	<p>The Major in Chemistry aims to provide students with a solid training in major areas of chemistry. The curriculum includes core courses covering topics in physical, inorganic, organic, and analytical chemistry. A wide selection of elective courses in chemical biology, chemical analysis, computational chemistry, environmental chemistry, industrial chemistry, interfacial science, material, and medicinal chemistry, is also available to provide students with knowledge and training to help them meet the dynamic and ever-changing challenges in science and technology.</p> <p>As for the Minor in Chemistry, it aims to provide students with fundamental knowledge and skills of chemistry. The minor curriculum is flexible. Students of different majors in science and other disciplines will be able to select courses that complement their major areas of study as well as enhance their knowledge in chemistry.</p>	
Offering Department:	Offered by the Department of Chemistry	

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses.</p> <p><u>Minor:</u> Please refer to the course prerequisites of the required courses.</p> <p>For details, please check with the Department of Chemistry.</p>
Career opportunities:	<p>Graduates of the Chemistry Major programme will be proficient in the principles and experimental skills of chemistry. The programme will also equip students with transferable skills in both theoretical and experimental investigations in sciences that are crucial for their future careers in a knowledge-based economy. It is expected that our graduates will be able to meet local and regional requirements in the industrial, commercial, government or education sectors and will become future leaders of these sectors.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInChemistry&AdmissionYear=2017</p> <p><u>Minor:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInChemistry&AdmissionYear=2017</p>
Contact:	<p>E: chemmail@hkucc.hku.hk T: 2859 7919</p>

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Computational & Financial Mathematics

Offered As:	✓ Minor	
*Open to students of other Faculties:	✓	
What is it about?	The Minor in Computational & Financial Mathematics provides students with fundamental knowledge in both computational mathematics and financial mathematics. It is specifically designed for students who are interested in the above subjects and those whose majors require sophisticated mathematical skills.	
Offering Department:	Offered by the Department of Mathematics	

Pre-requisites and/or other conditions for declaring the major/minor:	<i>Minor:</i> Please refer to the course prerequisites of the required courses. For details, please check with the Department of Mathematics.	
Career opportunities:	It aims to nurture quantitative reasoning, logical, analytical and critical thinking, innovative imagination, meticulous care to work, ability to conceptualize, skills for problem-solving and skills to tackle novel situations and ill-defined problems. It is particularly useful for solving mathematical problems arising from computational sciences and financial industry. For details, please check with Faculty or CEDARS (Careers & Placement).	
Further information:	<i>Minor:</i> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInComFinMath&AdmissionYear=2017	
Contact:	E: math@hku.hk T: 2859 2250	

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Faculty of Science

Decision Analytics

Offered As:	✓ Major
*Open to students of other Faculties:	✓
What is it about?	Amidst an upsurge of digital data produced worldwide nowadays, the Major in Decision Analytics aims to equip students with the skills and expertise in leveraging and managing big data in real time, and provide them with solid training in making digitized information a strategic part of critical decision-making and resource allocation with greater clarity and accuracy.
Offering Department:	Offered by the Department of Statistics and Actuarial Science

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses. For details, please check with the Department of Statistics and Actuarial Science.</p>
Career opportunities:	<p>Core courses in the curriculum emphasize the fundamental concepts and methodologies of decision analytics which include but not limited to statistical analysis, data mining and data visualization, programming, data structuring, mathematical and statistical modelling and implementation of database systems. Elective courses focus on diverse and applied techniques of decision analytics in multidisciplinary fields.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInDecisionAnalytics&AdmissionYear=2017</p>
Contact:	<p>E: saas@hku.hk T: 3917 2466</p>

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Faculty of Science Earth Sciences

Offered As:	✓ Minor	
*Open to students of other Faculties:	✓	
What is it about?	The Minor in Earth Sciences aims to provide interested students with an introduction to the fundamental structure, process and history of the Earth.	
Offering Department:	Offered by the Department of Earth Sciences	

Pre-requisites and/or other conditions for declaring the major/minor:	<i>Minor:</i> Please refer to the course prerequisites of the required courses. For details, please check with the Department of Earth Sciences.	
Career opportunities:	The minor curriculum is designed particularly to provide students from different majors the flexibility to select courses to enhance their interests in Earth Sciences or to complement their major of study. For details, please check with Faculty or CEDARS (Careers & Placement).	
Further information:	<i>Minor:</i> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInEarthSciences&AdmissionYear=2017	
Contact:	E: earthsci@hku.hk T: 2859 1084	

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Faculty of Science Earth System Science

Offered As:	✓ Major	
*Open to students of other Faculties:	✓	
What is it about?	Earth System Science seeks to understand the Earth as an integrated system, including its past, present and future behaviour, from the environments where life evolves on the surface to the interactions between the crust and its fluid envelopes (atmosphere and hydrosphere), with interests extending to the Earth's interior. Core courses in the major focus on understanding the composition, structure and processes of the solid earth, the hydrosphere and the atmosphere, and their interactions.	
Offering Department:	Offered by the Department of Earth Sciences	

Pre-requisites and/or other conditions for declaring the major/minor:	<i>Major:</i> Please refer to the course prerequisites of the required courses. For details, please check with the Department of Earth Sciences.	
Career opportunities:	Students will be equipped with knowledge to help manage geological resources and natural hazards. Throughout the curriculum there is consistent emphasis on transferable skills, learning through fieldwork, laboratory studies and research based classes, designed to enhance students' ability to think critically, to communicate effectively and to develop solutions to complex problems. Graduates from the major can pursue further studies in the Earth Sciences and careers in a wide variety of geoscience-related areas including resource management, hazard mitigation, soil and water conservation and teaching. For details, please check with Faculty or CEDARS (Careers & Placement).	
Further information:	<i>Major:</i> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInEarthSystemSc&AdmissionYear=2017	
Contact:	E: earthsci@hku.hk T: 2859 1084	

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Faculty of Science Ecology & Biodiversity

Offered As:	✓ Major	✓ Minor
*Open to students of other Faculties:	✓	
What is it about?	<p>This major is directed at teaching students: (1) how organisms interact with each other and their environments, (2) how species are distributed throughout the world, and (3) key threats and approaches to conserving biodiversity. Special reference is made to Hong Kong and Asia; the ways in which humans have impacted upon natural environments; and, the approaches used to manage or ameliorate those impacts. Students have an opportunity to conduct independent research in ecology and biodiversity as a final year project or a dissertation under the close supervision of an individual staff member.</p> <p>This Minor in Ecology & Biodiversity is an ideal introduction to the natural world, the species and ecosystems it comprises and the biological rules it follows. It aims to allow students to learn about general ecological principles and the local flora and fauna of the region, and the conservation challenges that will need to be addressed in a rapidly-changing world.</p>	
Offering Department:	Offered by the School of Biological Sciences	

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses.</p> <p><u>Minor:</u> Please refer to the course prerequisites of the required courses.</p> <p>For details, please check with the School of Biological Sciences.</p>	
Career opportunities:	<p>Through the range of formal field-based courses as well as extra-curricular activities offered, students taking this major will have opportunities to participate in research, field conservation and education projects both locally and internationally. Assistance will be provided so that students can develop expertise in one or a few groups of plants or animals, as familiarity with species identification is an essential prerequisite for biodiversity scientists or conservation biologists.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>	
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInEcologyBiodiversity&AdmissionYear=2017</p> <p><u>Minor:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInEcologyBiodiversity&AdmissionYear=2017</p>	
Contact:	<p>E: biosch@hku.hk T: 2299 0800</p>	

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Faculty of Science Environmental Science

Offered As:	✓ Major	✓ Minor
*Open to students of other Faculties:	✓	
What is it about?	<p>The Major in Environmental Science aims to provide students with a strong scientific and technological background for understanding and addressing the environmental issues faced by humankind. This includes a flexible teaching and learning programme so that students can explore environmental issues from a range of aspects. Throughout the curriculum, students are encouraged to undertake their own independent study from primary and secondary sources to incorporate critical thinking, field and laboratory work, documentary and archive scholarship, as integrated elements of relevant courses.</p> <p>The Minor in Environmental Science aims to provide students with an introduction to some complex environmental issues. Students will gain ecological and physical knowledge of the environment, become literate in issues related to environmental sustainability, monitoring and management, and be able to explore interdisciplinary solutions to these problems. This training will help student understand certain aspects of the environment and possible ways to solving environmental problems which will be useful to students to enhance their career prospects.</p>	
Offering Department:	Offered by the Department of Earth Sciences	

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses.</p> <p><u>Minor:</u> Please refer to the course prerequisites of the required courses.</p> <p>For details, please check with the Department of Earth Sciences.</p>
Career opportunities:	<p>By completing the curriculum, students are expected to have enhanced their knowledge in environmental science and have improved their problem-solving ability, communication and social skills. Students will be prepared to work in industries and government agencies, where they will help manage wisely the resources for which they are responsible.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInEnvironmentalScience&AdmissionYear=2017</p> <p><u>Minor:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInEnvironmentalScience&AdmissionYear=2017</p>
Contact:	<p>E: earthsci@hku.hk T: 2859 1084</p>

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Faculty of Science

Food & Nutritional Science

Offered As:	✓ Major	✓ Minor
*Open to students of other Faculties:	✓	
What is it about?	<p>The Major in Food and Nutritional Science aims to offer an exciting, dynamic, and challenging environment to prepare the students for career opportunities in food and nutritional science. The goals of the programme are to provide the students with: (a) critical knowledge and understanding of the theoretical and practical aspects of food science and technology and nutrition and their relationship to human health; (b) critical knowledge and understanding on the relationship between food safety and a wide range of social, legal, technological and environmental factors; (c) a curriculum meeting the requirements for higher degree in MPhil and PhD and or the taught Master of Science degrees in the field of Food industry: Management and Marketing, Food Safety and Toxicology and the postgraduate diploma in dietetics.</p> <p>The Minor in Food and Nutritional Science aims to provide a comprehensive education in food, nutrition and related sociological and technological topics, enabling graduates to develop their interest in food and nutrition and have a wide range of employment and progression options.</p>	
Offering Department:	Offered by the School of Biological Sciences	

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses.</p> <p><u>Minor:</u> Please refer to the course prerequisites of the required courses.</p> <p>For details, please check with the School of Biological Sciences.</p>	
Career opportunities:	<p>Internship experiences can be gained in medical centers, schools, industries, government and community setting. Students graduated from this programme are prepared for diverse careers in the food industry, government or private-sector food and nutrition agencies, and scientific research laboratories, health-care and fitness facilities, hospitals, nutrition education and communication enterprises.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>	
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInFoodNSc&AdmissionYear=2017</p> <p><u>Minor:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInFoodNSc&AdmissionYear=2017</p>	
Contact:	<p>E: biosch@hku.hk T: 2299 0800</p>	

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Faculty of Science Geology

Offered As:	✓ Major	
*Open to students of other Faculties:	✓	
What is it about?	Geology concerns with the scientific study of the Earth's structure, processes, material and history. Geologists apply knowledge of chemistry, biology, physics and mathematics to solve Earth problems.	
Offering Department:	Offered by the Department of Earth Sciences	

Pre-requisites and/or other conditions for declaring the major/minor:	<i>Major:</i> Please refer to the course prerequisites of the required courses. For details, please check with the Department of Earth Sciences.	
Career opportunities:	The Geology Major aims to give students a sound foundation of the geological sciences and enable them to pursue postgraduate studies or careers in the geosciences. The curriculum emphasizes the development of knowledge and skills, and practical experience in the field. The core courses are designed to give students a well-rounded understanding of the geological disciplines including petrology, paleontology, geophysics, geochemistry, geochronology and the applications of geological knowledge to resource development, natural hazard management, and geotechnical and environmental engineering. Students who wish to become a professional geologist may take additional designated courses designed to meet the pathway for accreditation as a chartered geologist. For details, please check with Faculty or CEDARS (Careers & Placement).	
Further information:	<i>Major:</i> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInGeology&AdmissionYear=2017	
Contact:	E: earthsci@hku.hk T: 2859 1084	

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Faculty of Science Marine Biology

Offered As:	✓ Minor	
*Open to students of other Faculties:	✓	
What is it about?	The field of marine biology has become increasingly popular as interest in and awareness of our marine environment grows. Hong Kong already has strong cultural and historical links with the sea as well as a strong economic and societal interest in natural marine resources. This Minor aims to introduce students to the field of marine biology from species, habitat and ecosystem levels, ranging from the deep ocean to intertidal environments, and from both theoretical and practical perspectives. Material will be global and include organisms and their physical, behavioral and physiological adaptations to the marine environment, as well as techniques for marine study. Major marine issues will be covered including benefits derived from the marine environment and possible implications of climate change for marine systems. Particularly relevant examples from Hong Kong and the Southeast Asia region will be highlighted.	
Offering Department:	Offered by the School of Biological Sciences	

Pre-requisites and/or other conditions for declaring the major/minor:	<i>Minor:</i> Please refer to the course prerequisites of the required courses. For details, please check with the School of Biological Sciences.	
Career opportunities:	This minor will provide students from diverse backgrounds (e.g. business, engineering and social science) an excellent opportunity to enter into a career or research in marine environment-related fields such as coastal ecosystem management, fisheries, marine environmental protection, marine resource management, etc. For details, please check with Faculty or CEDARS (Careers & Placement).	
Further information:	<i>Minor:</i> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInMarineBiology&AdmissionYear=2017	
Contact:	E: biosch@hku.hk T: 2299 0800	

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Faculty of Science Mathematics

Offered As:	✓ Major	✓ Minor
*Open to students of other Faculties:	✓	
What is it about?	<p>The Major in Mathematics provides students with a solid and comprehensive undergraduate education in the subject. It aims to nurture quantitative reasoning, logical, analytical and critical thinking, innovative imagination, meticulous care to work, ability to conceptualize, skills for problem-solving, and capability to tackle novel situations and ill-defined problems. Core courses in the curriculum emphasize fundamental knowledge and concepts in Mathematics and elective courses provide training in both pure and applied aspects of Mathematics.</p> <p>The Minor in Mathematics provides students with fundamental knowledge in the subject. It is specifically designed for students who are interested in the subject and those whose majors require sophisticated mathematical skills. It aims to nurture quantitative reasoning, logical, analytical and critical thinking, innovative imagination, meticulous care to work, ability to conceptualize, skills for problem-solving, and capability to tackle novel situations and ill-defined problems.</p>	
Offering Department:	Offered by the Department of Mathematics	

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses.</p> <p><u>Minor:</u> Please refer to the course prerequisites of the required courses.</p> <p>For details, please check with the Department of Mathematics.</p>	
Career opportunities:	<p>Throughout the curriculum there is also emphasis on experiential learning through guided studies, projects, seminars and summer internships. With the diversity of courses offered in the major, various specializations are available. These will lead to careers in a wide range of sectors including education, economics and finance, logistics, management, research and further studies.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>	
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInMathematics&AdmissionYear=2017</p> <p><u>Minor:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInMathematics&AdmissionYear=2017</p>	
Contact:	<p>E: math@hku.hk T: 2859 2250</p>	

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Faculty of Science Mathematics/Physics

Offered As:	✓ Major	
*Open to students of other Faculties:	✓	
What is it about?	The Major in Mathematics/Physics aims to provide students with a solid foundation in both physics and mathematics. This major is catered especially for students interested in the more theoretical aspects of physics. It covers a wide range of core areas in both disciplines which form the blocks of fundamental knowledge for further specializations, e.g. quantum mechanics, statistical mechanics, classical mechanics, electrodynamics, linear algebra, mathematical analysis, abstract algebra, complex variables, differential equations, modern differential geometry, etc. A large selection of elective courses is provided for students to pursue a broad spectrum of professional knowledge in mathematical and theoretical physics. Analytical thinking, quantitative reasoning and innovative ideas are fostered through the effective design of courses and research projects.	
Offering Department:	Offered by the Department of Physics	

Pre-requisites and/or other conditions for declaring the major/minor:	<i>Major:</i> Please refer to the course prerequisites of the required courses. For details, please check with the Department of Physics.	
Career opportunities:	The curriculum emphasizes experiential learning through internships, field studies and research projects supervised by experts. With the comprehensive training received, graduates are expected to be well-prepared for further studies and to pursue careers in many fields of science and engineering. For details, please check with Faculty or CEDARS (Careers & Placement).	
Further information:	<i>Major:</i> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInMathPhys&AdmissionYear=2017	
Contact:	E: physdept@hku.hk T: 2859 2360	

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Faculty of Science

Molecular Biology & Biotechnology

Offered As:	✓ Major	✓ Minor
*Open to students of other Faculties:	✓	
What is it about?	<p>Recent advancements in Molecular Biology & Biotechnology have not only cracked important and fundamental problems in life sciences, but also emerged as a mainstay of science and technologies of the 21st century. Innovations from advances in these fields have substantially transformed our daily lives, society and environment. This Major offers specialized training in state-of-the-art molecular and cell biology, and in the translation of basic knowledge into modern industrial and medical applications.</p> <p>The Minor in Molecular Biology & Biotechnology aims to provide students with a fundamental understanding of molecular biology and biotechnology which are relevant to many other disciplines of study and our daily life. Students will learn the principles underlying current molecular and cell biology advances, and biotechnological applications and will become literate in biotechnology business and advancements.</p>	
Offering Department:	Offered by the School of Biological Sciences	

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses.</p> <p><u>Minor:</u> Please refer to the course prerequisites of the required courses.</p> <p>For details, please check with the School of Biological Sciences.</p>	
Career opportunities:	<p>Built upon a sound theoretical foundation, students will further develop various essential skills in molecular biology and biotechnology through hands-on laboratory trainings and experimental biology-based projects. A feature of this major is to provide key transferable skills by engaging students in inquiry, critical thinking, and problem solving in their learning.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>	
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInMolecularBiotech&AdmissionYear=2017</p> <p><u>Minor:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInMolecularBiotech&AdmissionYear=2017</p>	
Contact:	<p>E: biosch@hku.hk T: 2299 0800</p>	

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Faculty of Science

Operations Research & Mathematical Programming

Offered As:	✓ Minor	
*Open to students of other Faculties:	✓	
What is it about?	The Minor in Operations Research & Mathematical Programming provides students with fundamental knowledge in optimization, computational algorithm, mathematical modeling, and decision making. It is specifically designed for students who are interested in the above subjects and those whose majors require sophisticated mathematical skills.	
Offering Department:	Offered by the Department of Mathematics	

Pre-requisites and/or other conditions for declaring the major/minor:	<i>Minor:</i> Please refer to the course prerequisites of the required courses. For details, please check with the Department of Mathematics.	
Career opportunities:	It aims to nurture quantitative reasoning, logical, analytical and critical thinking, innovative imagination, meticulous care to work, ability to conceptualize, skills for problem-solving and skills to tackle novel situations and ill-defined problems. It is particularly useful for solving mathematical problems arising from decision sciences and logistic industry. For details, please check with Faculty or CEDARS (Careers & Placement).	
Further information:	<i>Minor:</i> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInORMP&AdmissionYear=2017	
Contact:	E: math@hku.hk T: 2859 2250	

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Faculty of Science Physics

Offered As:	✓ Major	✓ Minor
*Open to students of other Faculties:	✓	
What is it about?	<p>The Major in Physics aims to provide students with a solid foundation on the subject. Core courses form the blocks of fundamental knowledge to pursue learning in specializations, e.g. quantum mechanics, statistical mechanics, classical mechanics and electrodynamics. A large selection of elective courses is provided for students to pursue a wide range of topics from the very small scale (i.e. subatomic particles) to the large scale (i.e. cosmology). Students will attain professional knowledge in physics, research experience and the training of analytical thinking and quantitative reasoning during their studies.</p> <p>The Minor in Physics is intended to provide interested students with a fundamental outlook on the subject. Students would acquire a taste of the subject through a large selection of elective courses which provides them to pursue a wide range of topics from the very small scale of nanomaterials to the large scale of astrophysics.</p>	
Offering Department:	Offered by the Department of Physics	

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses.</p> <p><u>Minor:</u> Please refer to the course prerequisites of the required courses.</p> <p>For details, please check with the Department of Physics.</p>	
Career opportunities:	<p>Graduates are expected to have acquired the broad training which can equip them well for further studies in multiple science and technology disciplines and to work in their specialized area.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>	
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInPhysics&AdmissionYear=2017</p> <p><u>Minor:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInPhysics&AdmissionYear=2017</p>	
Contact:	E: physdept@hku.hk T: 2859 2360	

* Note: Students pursuing curricula with major / minor programme(s) must complete at least one major programme from their home Faculties upon graduation.

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Faculty of Science Plant Science

Offered As:	✓ Minor	
*Open to students of other Faculties:	✓	
What is it about?	The Minor in Plant Science is offered to students who are fascinated by the diversity and beauty of plants and the molecular mechanisms underlying their growth and development. Knowledge in plant science is essential for tackling daily-life issues such as the production of high-quality food, utilization of plant products as biofuels and extraction of beneficial phytochemicals. Recent advances in plant genetic engineering have also allowed scientists to manipulate plant growth and development for nutritional and environmental benefits.	
Offering Department:	Offered by the School of Biological Sciences	

Pre-requisites and/or other conditions for declaring the major/minor:	<i>Minor:</i> Please refer to the course prerequisites of the required courses. For details, please check with the School of Biological Sciences.	
Career opportunities:	This minor aims to provide broad training in the biology of plants from the molecular to the organism level as well as the agricultural and nutritional applications of plants and plant-derived products. For details, please check with Faculty or CEDARS (Careers & Placement).	
Further information:	<i>Minor:</i> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInPlantSc&AdmissionYear=2017	
Contact:	E: biosch@hku.hk T: 2299 0800	

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Faculty of Science Risk Management

Offered As:	✓ Major	✓ Minor
*Open to students of other Faculties:	✓	
What is it about?	<p>The Major in Risk Management aims to provide students with the skills and expertise in the theory and methodology behind the scientific process of risk management, with application to actuarial science, finance and other related areas of interest. It is designed to provide solid training in the concepts of the risk management process, statistical models and methods of risk management, and good risk management practice.</p> <p>The Minor in Risk Management aims to provide interested students with basic concepts of risk management and fundamental skills of employing various statistical techniques for managing risk. The minor curriculum is particularly designed for students from different majors to enhance their interests in Risk Management or to complement their major of study.</p>	
Offering Department:	Offered by the Department of Statistics and Actuarial Science	

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses.</p> <p><u>Minor:</u> Please refer to the course prerequisites of the required courses.</p> <p>For details, please check with the Department of Statistics and Actuarial Science.</p>
Career opportunities:	<p>Core courses in the curriculum emphasize fundamental concepts and nature of risk assessment, risk management and governance from different standpoints while elective courses provide either training in specific Risk Management disciplines or an extension of knowledge aiming to give students more modeling, technical and analytical skills in risk management, including data mining, stochastic calculus, and financial time series modeling.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInRiskManagement&AdmissionYear=2017</p> <p><u>Minor:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInRiskManagement&AdmissionYear=2017</p>
Contact:	<p>E: saas@hku.hk T: 3917 2466</p>

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Faculty of Science Statistics

Offered As:	✓ Major	✓ Minor
*Open to students of other Faculties:	✓	
What is it about?	<p>The Major in Statistics focuses on the study of statistics, a scientific discipline characterized by the development and applications of analytical and quantitative tools which involve logical thinking, problem formulation, probability reasoning and intensive data analyses. The programme aims to equip students with powerful mathematical, analytical and computational skills, which are in great demand in practical areas where data are obtained for the purpose of extracting information in support of decision making. It gives students a strong background in statistical concepts, and provides broad and solid training in applied statistical methodologies.</p> <p>The curriculum of the Minor in Statistics is structured specifically to cater for the general need of non-statistical disciplines and provide basic training in statistical methodologies and their applications to practical problems. It aims to provide students with a strong and rigorous sense of quantitative reasoning that has become an indispensable skill in nearly all disciplines.</p>	
Offering Department:	Offered by the Department of Statistics and Actuarial Science	

Pre-requisites and/or other conditions for declaring the major/minor:	<p><u>Major:</u> Please refer to the course prerequisites of the required courses.</p> <p><u>Minor:</u> Please refer to the course prerequisites of the required courses.</p> <p>For details, please check with the Department of Statistics and Actuarial Science.</p>
Career opportunities:	<p>The curriculum is constantly revised to meet a steadily rising demand for specialist statisticians or quantitative analysts in government, business, finance, industry, as well as in research and teaching in local and overseas institutions.</p> <p>For details, please check with Faculty or CEDARS (Careers & Placement).</p>
Further information:	<p><u>Major:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Major&Code=MajorInStatistics&AdmissionYear=2017</p> <p><u>Minor:</u> http://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Minor&Code=MinorInStatistics&AdmissionYear=2017</p>
Contact:	<p>E: saas@hku.hk T: 3917 2466</p>

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