



**Press Release  
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## **HKU Faculty of Science introducing new initiatives in curricula enhancement Equipping outstanding undergraduate students for versatile developments**

October 30, 2018

The Faculty of Science of The University of Hong Kong (HKU) is pleased to announce several key developments of its science curricula – introducing 4 accredited intensive majors, 3 articulation pathways, 2 interdisciplinary Bachelor of Arts and Sciences Programmes, and the launch of a new Minor in Science Entrepreneurship, equipping outstanding undergraduate students with skills for versatile developments according to their aspirations, ability and interests.

Seeing the changing spectrum of scientific advancements, HKU Science as the forerunner of science education, addresses the need to enhance its curricula to keep abreast of times. Dean of HKU Science Professor Matthew Evans welcomes the ambitious moves. “These enhancements align with HKU’s vision of achieving interdisciplinary studies across disparate subject boundaries. While emphasising the importance of solid training in science, we do not neglect the mission of nurturing future global leaders to make changes in our interconnected world. The enhancements see the bridging of our BSc programme to diverse learning and job opportunities, both locally and overseas. We are also very pleased to create opportunities for our students to gain professional qualification through articulation pathways and accreditations,” said Professor Evans.

### **(1) Accredited Intensive Majors — Specialisation and intensive training make experts**

Following the accreditations of 4 Science Majors in 6901 BSc Programme obtained from UK professional bodies, the Faculty has adapted the aforementioned accredited Majors into 4 new Intensive Majors, alongside with the regular 96-credit Majors:

- a. Major in Chemistry (Intensive) – 144 credits, accredited by the Royal Society of Chemistry
- b. Major in Ecology & Biodiversity (Intensive) – 144 credits, accredited by the Royal Society of Biology
- c. Major in Geology (Intensive) – 150 credits, accredited by The Geological Society
- d. Major in Molecular Biology & Biotechnology (Intensive) – 144 credits, accredited by the Royal Society of Biology

The new Intensive Majors allow students to specialise in a science discipline with enriched subject knowledge, preparing those who intend to pursue research in science with adequate disciplinary expertise in both depth and breadth. With the listing of specialisation in transcript, graduates generally enjoy an advantage at job application and when seeking a chartered degree.

### **(2) Articulation pathways — Seamless articulation to widely recognised postgraduate programmes**

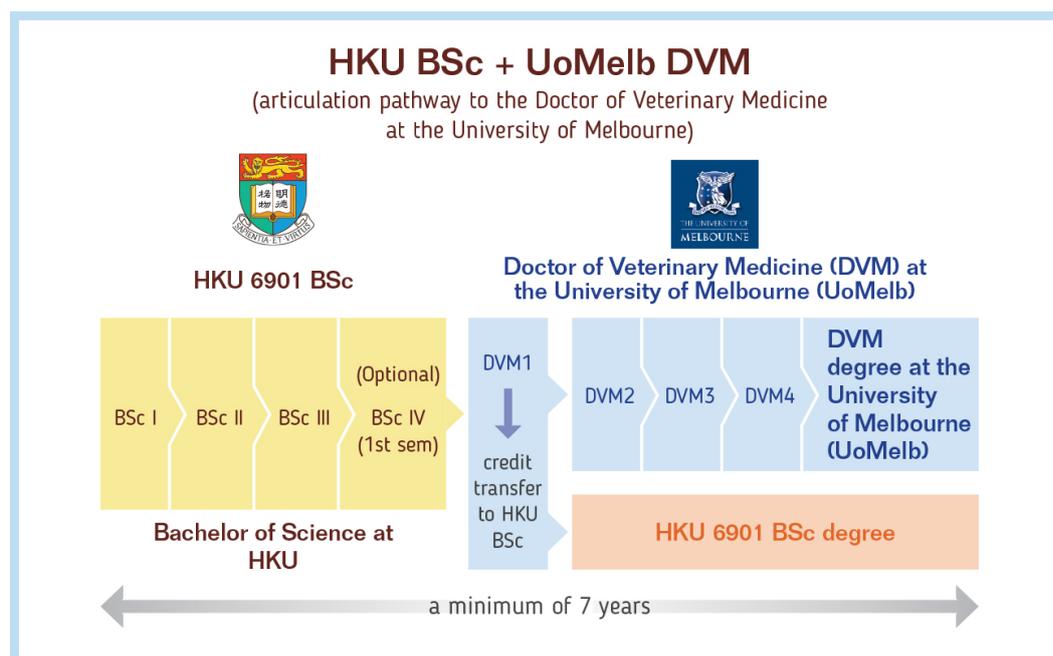
- a. to Doctor of Veterinary Medicine (DVM) at the University of Melbourne (UoMelb)

In collaboration with UoMelb in Australia, HKU Science will provide a new pathway to talented 6901 BSc students of the following Majors who aspire to pursue a career in veterinary to articulate into the DVM of the UoMelb:

- |                          |                                     |
|--------------------------|-------------------------------------|
| - Biological Sciences    | - Food & Nutritional Science        |
| - Biochemistry           | - Molecular Biology & Biotechnology |
| - Ecology & Biodiversity |                                     |

The articulation pathway facilitates selected students, upon successful completion of a minimum of 6 semesters and gaining 186 credits under BSc 6901 programme, to enroll in DVM at UoMelb. Credits obtained during their first year of DVM at UoMelb can be transferred to HKU as electives, subject to relevant HKU regulations, for the purpose of fulfilling the credit requirements of the BSc Programme. Graduates will be

conferred 2 degrees from the 2 universities – the HKU BSc degree and the DVM in UoMelb in no less than 7 years. The internationally accredited programme allows graduates to find employment as a practising veterinarian in many countries without further training. Graduates can also register as veterinary surgeons and practise in HK through Veterinary Surgeons Board of Hong Kong.



**Figure 1**

b. To Science Taught Postgraduate Programmes at HKU

Another articulation pathway is the attachment of 6901 Bachelor of Science (BSc) / 6729 Bachelor of Science in Actuarial Science (BSc(ActuarSc)) / 6224 Bachelor of Arts and Sciences in Applied Artificial Intelligence (BASc(Applied AI)) to the master programmes at HKU Science. It provides a convenient channel of specialized training for deepening knowledge in specific fields of science, with guaranteed admission to the taught postgraduate programmes offered by the Faculty to selected outstanding students. Such programmes include:

- MSc in the field of Applied Geosciences
- MSc in the field of Food Safety and Toxicology
- MSc in the field of Food Industry: Management and Marketing
- Master of Statistics (MStat)
- MSc in Environmental Management
- Master of Data Science (MDASC)

Upon successful completion in 5/ 5.5 years, students will be able to obtain a BSc/ BSc(ActuarSc) / BASc(Applied AI) degree (4 years) plus a MSc/ MStat degree (1 year) or a MDASC degree (1.5 years).

c. To Master of Science in Biotechnology at Northeastern University

With this articulation pathway, all graduates with a BSc degree from HKU Science with good academic results will be eligible for direct admission to the programme. Admitted students may elect to complete the first year of course work online, and then transfer to Northeastern’s Boston or California campus to complete the remaining studies. A minimum of 4 places will be reserved for HKU students on both the Boston, Massachusetts Campus and the California Campus.

**(3) New interdisciplinary Bachelor of Arts and Sciences Programmes – Opening up new perspectives**

a. 6224 Bachelor of Arts and Sciences in Applied Artificial Intelligence (BASc(Applied AI))

In this digital era, the limitless power of AI shows its impact on all aspects of life. The Programme highlights AI applications in diverse areas so that students can develop the intellectual capacity essential to meeting new challenges. Supported by a wide range of courses in computer science, geography, mathematics, psychology, statistics, and urban studies which emphasise problem-based learning, the programme nurtures students to

transfer interdisciplinary scientific knowledge into a range of integrated applications and technological innovations. Some unique features of the Programme are highlighted below:

- **New option for elite students:** Provides formal academic training to elite students who wish to join the AI profession
- **Featured concentrations:** AI technology, AI in business and finance, AI in medicine, AI in smart city, or AI in neurocognitive science
- **Career prospects:** Connects the exploding demand of the AI market in diverse areas: science and technology, environmental protection, medical informatics, health care, business, banking, finance, urban development, neurocognitive science, etc.
- **Interdisciplinary training:** Facilitates a coordinated approach to teaching and learning across different disciplinary fields in collaboration with the Faculties of Engineering, Social Sciences and Architecture

b. 6212 Bachelor of Arts and Sciences (BASc)

The programme is a truly intrinsically integrated programme co-offered by the Faculties of Social Sciences, Arts and Science. Designed for intellectually ambitious students who want to develop a broad set of scholarly skills in order to become leaders across a diverse range of fields to meet important global challenges, it equips students with social intelligence, creative problem-solving, analytical skills, communication skills, ethical responsibility and interdisciplinary perspective in understanding our world.

Some of the unique features of BASc are appended below:

- **Interdisciplinary Major:** Students take 3 disciplinary courses from each of the 3 Faculties and also elective courses within 2 pathways: (1) Cultures/ Societies and (2) Physical World/ Biological/ Human Sciences
- **Developing intellectual toolkit:** Learn how to intersect between disciplines and integrate them together through case studies, capstone learning, and experiences of thought leaders in professions
- **Career prospects:** Wide career prospects in government, management consultancy, public relations, banking, public policy, environmental services, museum, heritage or science writing/ journalism, and non-governmental organisation work, etc.

#### (4) Minor in Science Entrepreneurship – Opening up new perspectives

The Minor aims at broadening the horizon of our undergraduate students with respect of entrepreneurship, offering them more competitive edge via connecting their academic knowledge with the real world. Placing strong emphasis on practical experience and fruitful career opportunities, the new Minor in Science Entrepreneurship incorporates both entrepreneurship internship and capstone project in the syllabus, including entrepreneurship-related competitions or business analysis of enterprises. Mentoring is offered by our alumni and others who are entrepreneurs or hold senior positions in industry/ business. New courses such as organisational behaviours, leadership, principles of technology entrepreneurship, science-based innovation development, strategic marketing and user analysis are tailor-made for this Minor, together with the provision of related courses currently offered by other Faculties.

**Download of presentation files and image at media briefing:** <http://www.scifac.hku.hk/news/media?page=1>



From the left: Co-director of BASc (AppliedAI) Programme Professor Jeff Yao, Associate Dean of Science (Teaching & Learning) Professor Alice Wong and Head of Mathematics Professor Patrick Ng.

For more information about, please visit:

Science undergraduate programmes and admissions requirements: <https://www.scifac.hku.hk/ug/prospective-student>

(Video) Introducing the New Initiatives for Science Curricula: <https://youtu.be/q0HRtecm4R0>

(Video) Introducing 6224 BAsc(Applied AI) Programme: <https://youtu.be/5KDwjNdhw58>

MSc programmes at HKU, please visit: <http://www.aal.hku.hk/tpg/faculty/faculty-science>

Faculty of Science Admissions Talk Schedule for HKU Information Day for HKDSE students: [https://www.scifac.hku.hk/file/upload/1727/Talk\\_Schedule\\_2018.pdf](https://www.scifac.hku.hk/file/upload/1727/Talk_Schedule_2018.pdf)

DVM at UoMelb, please visit:

<http://fvas.unimelb.edu.au/study/courses/doctor-of-veterinary-medicine/overview>

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