

COMMITTEE ON UNDERGRADUATE STUDIES

Paper for: Discussion/Decision

Title: **Final Proposal of New Bachelor of Science Program in Sustainable and Green Finance**

Purpose: The School of Business and Management and Interdisciplinary Programs Office submit the final proposal of introducing the new BSc Program in Sustainable and Green Finance for implementation with effect from Fall 2022-23 for consideration by CUS

Submitted by: School of Business and Management and Interdisciplinary Programs Office

Prepared by: CUS Secretariat

BACKGROUND

1. At the 167<sup>th</sup> meeting held on 13 January 2021, the CUS discussed the initial plan for the new BSc Program in Sustainable and Green Finance. Comments and issues raised by CUS were subsequently conveyed to the School of Business and Management (SBM) and Interdisciplinary Programs Office (IPO) by the Secretariat ([Appendix 1](#)). SBM and IPO were required to address the issues and concerns, and provide responses in the final program proposal.

FINAL PROPOSAL

2. The final proposal ([Appendix 2](#)) has addressed the suggestions given by CUS. The key areas are listed below and details are available in [Section \(h\) of Appendix 2](#).

- (a) The criteria for program-based admission and Major selection exercises have been set out;
- (b) New ENVR courses would be open as free electives for students from other Majors; and
- (c) Recommended study pathway ([Attachment 3 of Appendix 2](#)) has been worked out; and
- (d) SBM/IPO will work closely with URAO to enable students to have a better understanding of the program.

3. Subject to approval by the Senate, the new BSc Program will be launched in Fall 2022-23.

#### ACTION SOUGHT

4. CUS is invited to consider and recommend as appropriate to the Senate for approval the proposed new BSc Program in Sustainable and Green Finance as presented in Appendix 2 for introduction in Fall 2022-23.

**From:** [Senate Committee on Undergraduate Studies](#)  
**To:** [Kar Yan TAM](#); [Huamin QU](#)  
**Cc:** [Anirban Mukhopadhyay](#); [Andrew Brian HORNER](#); [Jimmy C.H FUNG](#); [LUK Anne](#); [Janet TANG](#)  
**Subject:** Initial Proposal for the New Bachelor of Science Program in Sustainable and Green Finance  
**Date:** 14 January 2021 17:45:06

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**To:** Prof Ka Yan TAM, Dean of School of Business Management  
Prof Huamin QU, Director, Interdisciplinary Programs Office

**From:** CUS Secretariat (*for* Prof Anirban MUKHOPADHYAY, Secretary of CUS)

**cc:** Prof Andrew HORNER, Chair of CUS  
Prof Jimmy FUNG, Head, Division of Environment & Sustainability

**Subject: Initial Proposal for the New Bachelor of Science Program in Sustainable and Green Finance**

At its 167<sup>th</sup> meeting on 13 January 2021, the Committee on Undergraduate Studies (CUS) considered the Initial Proposal for the New Bachelor of Science Program in Sustainable and Green Finance (BSc SGFN) submitted by the School of Business Management (SBM) and Interdisciplinary Programs Office (IPO).

Members expressed broad general support for the initiative; and CUS would like to share with SBM and IPO its observations/comments below; and invite SBM and IPO to address them when presenting the proposal for final approval.

- (a) The program, likely to be the first of its kind in Hong Kong, aims to fill the huge gap in the market due to strong demand at the top level for green finance experts, as reflected by various stakeholders. Green finance would be a priority development for SBM. The proposed program would be a major key to make HKUST a centre of excellence in green finance;
- (b) Members' concern about whether students from Schools other than SBM could join the program was heard. Members were assured that the program aims to recruit the best students, and there was no intention of barring any students from joining the program. A detailed pathway and Major admissions criteria to be worked out by SBM/IPO would provide a clearer picture on the feasibility of admitting students from outside SBM/ENVR;
- (c) The new ENVR courses would be open to students from other Majors as free electives;
- (d) SBM/IPO had had a long discussion about the program title. Having taken into account the common usage in the community (e.g., Hong Kong Exchange's Sustainable & Green Exchange, Green and Sustainable Banking as used by the Hong Kong Monetary Authority), "Sustainable and Green Finance" was adopted as the title for the program. The title would be confirmed after collecting further opinion from external experts;
- (e) There was plan to include the initiative in the Planning Exercise Proposal. An initial discussion of the proposal at CUS would be meaningful.
- (f) SBM/IPO to coordinate with URAO so that potential students could have a better understanding about the program.

It is hoped that the comments will help your preparation of the final proposal. CUS looks forward to receiving the final proposal from the SBM and IPO. Please note that the final proposal should come with new course proposals for all the planned new required courses

for the curriculum.

Should further details/clarification be needed, please contact Ms Anne LUK (ext. 6009) or Ms Janet TANG (ext. 5735) of the Secretariat.

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# THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

## APPROVAL OF NEW UNDERGRADUATE PROGRAM

### a) Educational Objectives and Alignment of Objectives with Role and Mission

Sustainable and Green Finance is an emerging discipline that aims to increase the level of financial flows from the public, private and not-for-profit sectors to sustainability development priorities at the national and global levels. The consent among signing nations of the landmark U.N. Paris Agreement in 2015 is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels. Mainland China is a strong advocate of the Agreement and aims to achieve zero carbon emission by 2060. Hong Kong also sets its carbon neutrality target in 2050. This collective effort among nations with clear milestones and targets under the Paris Agreement or their own national agendas will create tremendous opportunities for professionals who can lead and integrate Environmental, Social and Governance (ESG) strategies into finance and investments.

According to a recent report of Boston Consulting Group, China will have to invest up to HK\$118 trillion over the next three decades in technologies and infrastructure to achieve the said target. These investment opportunities will create a huge demand for professionals who are knowledgeable of finance, sustainability, climate change, and related technological solutions. There is a huge gap between the supply and demand for talent in Sustainable and Green Finance worldwide. Currently, there is no undergraduate program in Hong Kong that focuses on green finance while universities in Europe and the US have started to launch programs in recent years. In response to this surging demand, the School of Business and Management (SBM) is collaborating with the Division of Environment and Sustainability (ENVR) to offer a 4-year Bachelor of Science program in Sustainable and Green Finance. With a strong Environment Division and a reputable Business School, HKUST is in a unique position to develop a new program to fill the talent gap and help develop Hong Kong into a leading international green finance center.

The proposed program will equip students with the essential knowledge and skills in Sustainable and Green Finance. It intends to nurture students to be effective leaders and managers in ESG, impact investment, financing of sustainable and green projects, development of sustainable and green instruments and products, and other related fields. Students are required to complete a selected set of courses from SBM, ENVR, and other academic units to fulfill the degree requirements. The curriculum will embrace a wide range of topics related to Sustainable and Green Finance. The courses will span multiple disciplines, including climate and ESG, finance and risk management, statistics and programming, big data, operations management, public policy, among others.

The proposed program aligns strongly with HKUST's vision and mission. In particular, the interdisciplinary nature of the program will provide students with a broad-based learning experience that cuts across business as well as environment, science, and technology. Its holistic curriculum will equip students with a solid foundation of knowledge and skills to function effectively in related fields, enhance students' creativity and critical thinking skills, and provide students with a global outlook on the development of Sustainable and Green Finance. The graduates of this program will be in good demand, and they will contribute to the economic and social development of Hong Kong, the Greater Bay Area, and beyond.

This program will include a total of 118-119 credits, including:

- University Common Core (Revamped): 30 credits
- Business and Finance Required Courses: 24 credits
- Environment and Sustainability Required Courses: 24 credits
- Other Required Courses: 22-23 credits
- Finance and Sustainability Electives: 18 credits

For details, please refer to [Attachment 1: Curriculum Requirements](#).

#### **b) Student Demand and Demand for Graduates**

To moderate the adverse impacts of climate changes is a shared priority of developed and developing nations. The goal to “green the brown” will create tremendous opportunities in new energy technologies, development of financial markets such as carbon pricing and trading to facilitate the replacement of fossil energy, digitization of infrastructure of transportation to save energy consumption, the market for green bonds and other instruments to fund sustainability projects. Hong Kong, as an international financial center, can play an important role in this development that will span decades.

In the Chief Executive's Policy Address 2020, Mrs. Carrie Lam said, “We will develop green finance to boost investments conducive to reduce carbon emissions, build a low-carbon economy which is more resilient to climate change, and enhance public education and publicity. I cordially invite all sectors to work together to promote low-carbon transformation in Hong Kong in a bid to strive towards the goal of carbon neutrality by 2050.” (<https://www.policyaddress.gov.hk/2020/eng/policy.html>). Subsequent to the announcement of the Policy Address, Professor Arthur Li, Chairman of the Council for Sustainable Development (SDC), expressed that “It is a challenge for Hong Kong to strive to achieve carbon neutrality before 2050, which requires collaborative efforts across the government, businesses, non-profit sector, and individuals. Yet, at the same time, it offers new opportunities for the Hong Kong economy, intensifies the development of green enterprises, and creates jobs. Hong Kong, as an advanced international metropolis, should capitalise on its well-developed infrastructure, enable its talents to realise their

potential, and promote local research and development. We should seize this opportunity and work together so that Hong Kong can strive to achieve carbon neutrality before 2050.”  
(<https://www.info.gov.hk/gia/general/202011/25/P2020112500723p.htm>)

There is a great demand for talent in Sustainable and Green Finance. However, there is a worldwide shortage of talent in Sustainable and Green Finance. A report produced by Macquarie Infrastructure and Real Assets of Macquarie Group Limited in January 2020 points out that although more than 90 percent of real asset investors expect to increase their focus on sustainability over the next five years, there is an absence of in-house ESG expertise, especially in the US and Asia.  
(<https://www.macquarie.com/hk/en/about/news/2020/focus-on-esg-intensifies-as-real-asset-investors-seek-returns-reveals-new-macquarie-infrastructure-and-real-assets-report.html>) The shortage of talent pool is also found in Europe. Natalie Basiratpour, a director at recruitment firm Octavius Finance in London, was interviewed by eFinancialCareers and said, “there’s a tendency for funds to hire people with ESG experience from not for profits and elsewhere and to sit them alongside people with existing investing talent, with the intention that ESG experts will influence the outcomes.”  
(<https://news.efinancialcareers.com/uk-en/3004891/esg-jobs-and-pay-finance>)

Talent is the key to develop Hong Kong into a green finance center and to prepare for the carbon neutrality challenge. There is no degree program in Sustainable and Green Finance in Hong Kong as of today. While there exist local degree programs in either finance or environment, but they tend to focus on silo traditional disciplines with little integration between finance and environment, which is the essence of this emerging discipline. From all indications we received from the government, regulators, and industry, there is already a huge demand for professionals in Sustainable and Green Finance, and the talent gap will only be widened in the future.

#### **c) Arrangements for Admission and Selection (if relevant)**

A hybrid admission model will be adopted for this program. For an initial class size of 30, 18 will be directly recruited and admitted from secondary schools, and 12 will be admitted through the major selection exercise from SBM at the end of year 1. This hybrid model allows some students with dual interests across two distinct disciplines to follow a coordinated and integrated curriculum so they can adapt their study earlier to pursue their interests. At the same time, it preserves the opportunity for those who have not decided their interest in admission to HKUST but who later find that they are interested in studying Sustainable and Green Finance.

For admission requirements, we will combine the current requirements of SBM and ENVR for the new program. For HKDSE, the proposed minimum requirements are 433233 (for English, Chinese, Mathematics, Liberal Studies, and two other electives), with a weighting of 2 for English and Mathematics



and 1.5 for the best elective score from Chemistry/Economics/Physics/M1/M2. Interviews may be conducted as part of the selection.

For students admitted to the joint program who wish to exit the major, they can transfer to SBM or ENVR (as an undeclared major for SBM) after the first term (application deadline is in the Winter term before Spring term starts) so that the students can enroll in the relevant courses in the School that they wish to opt-in. This will ensure that the students will still be able to follow the new curriculum without further delay and will be able to graduate in time. After this opt-out deadline, students may still transfer to SBM or ENVR through program transfer.

#### **d) Estimated Student Enrollment (for majors/minors)**

The initial intake in 2022-23 will be 30 students.

#### **e) Consultation with Stakeholders**

SBM has consulted its School Advisory Council at its meeting held on 8 October 2020. The Council consists of local and international business leaders from various professional industries. Strong support has been obtained from the Council on the School's strategic development on Sustainable and Green Finance.

We have also interviewed the following stakeholders to solicit their views on the degree program in Sustainable and Green Finance and the demand for talent in Hong Kong:

Title and Institution	Name
Secretary of Financial Services and Treasury Bureau	Christopher Hui
Former Undersecretary of Environment	Christine Loh
Chief Executive of Hong Kong Monetary Authority	Eddie Yue
Deputy Executive of Hong Kong Monetary Authority	Arthur Yuen
Senior Director, Head of International Affairs & Sustainable Finance Securities and Futures Commission	Christine Kung
Head of Banking Policy, Hong Kong Monetary Authority	Daryl Ho
Managing Director, Head of Green and Sustainable Finance, Markets Division, Hong Kong Exchanges and Clearing Limited	Grace Hui
Chairman, World Green Organization (Hong Kong)	Albert Yip
President, EFMD	Eric Cornuel

Their comments and advice are very consistent that such a degree program will increase the talent pool and capacity of Hong Kong in the area of Sustainable and Green Finance. On Nov 19, 2020, we invited Daryl Ho (Head of Banking Policy of HKMA) to brief our faculty on the issues and priorities of HKMA on climate and Green Finance so that colleagues in planning the curriculum have first-hand information on the development of the industry and its trajectory.

To make our Sustainable and Green Finance Program stay relevant and meet the changing needs of the industry, we are in the process of establishing the Advisory Committee on the Program with a view to

provide advice on its curriculum enhancement. The Advisory Committee consists of senior executives of highly respected firms and international corporations, as well as our alumni from the related field. The term for serving on the Committee is 2 years.

#### **f) Benchmarking**

We have conducted a benchmarking study and found no degree program in Sustainable and Green Finance offered by UGC institutions at this point. We have also reviewed overseas programs in related areas. Please refer to a separate table in [Attachment 2 for benchmarking](#) the University of Leeds, the University of Reading, the University of Warwick, our existing Quantitative Finance major and our existing Environment Management and Technology major, and the proposed program.

#### **g) Resources**

Some courses in the program are existing courses offered by SBM and ENVR. Additional resources will be needed to develop new interdisciplinary courses, to identify suitable capstone projects and advisors for the students, and to support program administration (e.g., recruitment and admission, student advising). Particularly, 2 to 3 new faculty in this area will be needed for all these new courses.

#### **h) Responses to Issues and Questions Raised by the CUS on the Initial Proposal**

Responses to comments raised by CUS at its 167<sup>th</sup> meeting on January 13, 2021.

- 1) Comment:** The program, likely to be the first of its kind in Hong Kong, aims to fill the huge gap in the market due to strong demand at the top level for green finance experts, as reflected by various stakeholders. Green finance would be a priority development for SBM. The proposed program would be a major key to make HKUST a centre of excellence in green finance.

**Response:** Yes, we hope to help develop Hong Kong into a leading international green finance center.

- 2) Comment:** Members' concern about whether students from Schools other than SBM could join the program was heard. Members were assured that the program aims to recruit the best students, and there was no intention of barring any students from joining the program. A detailed pathway and Major admissions criteria to be worked out by SBM/IPO would provide a clearer picture on the feasibility of admitting students from outside SBM/ENVR.

**Response:** A recommended study pathway has been prepared ([Attachment 3 Recommended Study Pathway](#)). Program-based admitted students are required to take introductory courses such as Business Statistics, Fundamental of Business Finance, Coding and Business Analytics, Introduction to Sustainability, etc, in Year 1.

As for major selection criteria, the following tentative requirements are proposed:

- Minimum Requirements: CGA 3.0 or above; B- or above in MATH1003 or equivalent; C+ or above in LANG 1002 & 1003
- Ranking Criteria: Holistic assessment based on CGA, selected course performance, CV profile, personal statement, and interview performance

- 3) Comment:** The new ENVR courses would be open to students from other Majors as free electives.

**Response:** No problem with this.

- 4) **Comment:** SBM/IPO had had a long discussion about the program title. Having taken into account the common usage in the community (e.g., Hong Kong Exchange's Sustainable & Green Exchange, Green and Sustainable Banking as used by the Hong Kong Monetary Authority), "Sustainable and Green Finance" was adopted as the title for the program. The title would be confirmed after collecting further opinions from external experts.

**Response:** We shall keep "Sustainable and Green Finance" as the program title.

- 5) **Comment:** There was plan to include the initiative in the Planning Exercise Proposal. An initial discussion of the proposal at CUS would be meaningful.

**Response:** Noted.

- 6) **Comment:** SBM/IPO to coordinate with URAO so that potential students could have a better understanding about the program.

**Response:** We shall work with URAO accordingly.

- 7) **Comment:** It is hoped that the comments will help your preparation of the final proposal. CUS looks forward to receiving the final proposal from the SBM and IPO. Please note that the final proposal should come with new course proposals for all the planned new required courses for the curriculum.

**Response:** New course proposals for most of the courses are enclosed ([Attachment 4 BSc SGFN New Course Proposals](#)). The exception is FINA 4733 Green Finance Case Analyses, which will be targeted for submission in Fall 2024 or Fall 2025 at the latest.

#### i) Intended Learning Outcomes

Graduates from the program are expected to:

1. have a broad understanding of sustainable and green business functions and integrate these functions to adopt an inter-disciplinary approach and formulate effective and innovative solutions to tackle complex real-world problems.
2. have in-depth grasp of Sustainable and Green Finance knowledge and skills, and transfer acquired knowledge and skills to meet changes and challenges in different fields.
3. engage in activities that lead to impact of societal improvement
4. make effective ESG finance decisions supported by analytical and quantitative techniques.
5. have the ability to create and innovate with divergent thinking.
6. communicate effectively with people of different levels and work areas.
7. work independently, collaborate effectively in teams, and lead a team to success.
8. demonstrate a global outlook and function effectively in multi-cultural and international settings.
9. effectively use information technology and sources of information in work applications.
10. understand professional and ethical responsibility, and recognize the importance of a sustainable and green living society.

#### j) Program Management

Both SBM and ENVR are fully committed to the program. SBM and ENVR will each appoint a faculty member as a Co-Director to jointly manage the program. An Executive Committee will be formed consisting of the two Co-Directors and administrative representatives from SBM and ENVR (Heads and/or

Associate Deans) as members. The Committee will meet at least quarterly or more often as needed to discuss strategic and administrative matters and to ensure the program's smooth operation. Administratively, the program will be housed under SBM. The proposed program management arrangements will be reviewed after 2 years or earlier if major issues come up.

**k) Transitional Arrangement**

N/A

## Bachelor of Science in Sustainable and Green Finance

### Curriculum Requirements

This program will include a total of 118-119 credits, including:

- University Common Core (Revamped): 30 credits
- Business and Finance Required Courses: 24 credits
- Environment and Sustainability Required Courses: 24 credits
- Other Required Courses: 22-23 credits
- Sustainable and Green Finance Electives: 18 credits

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*School of Business and Management - BSc in Sustainable and Green Finance*

*(For students admitted in 2022-23 under the 4-year degree)*

### BSc in Sustainable and Green Finance

Students taking the BSc Program in Sustainable and Green Finance as their first major are exempted from the School Requirements. However, they are still required to complete the University requirements in addition to the major requirements for graduation. For details please refer to the respective sections on this website.

Students may use no more than 6 credits earned from courses offered in pure online delivery mode to satisfy the graduation requirements of a degree program. This 6-credit limit does not apply to credits obtained through the credit transfer procedures of the University.

For students graduating with an additional major, they must take all the requirements specified for that major, within which they must complete at least 20 single-counted credits. These 20 credits cannot be used to fulfill any other requirements for graduation except for the 120-credit degree requirement.

### Major Requirements

#### Required Course(s)

			Credit(s) attained
FINA/ ISOM/ MGMT	Business and Finance Required Courses (Courses from the specified list)		24
FINA	3103	Intermediate Investments	3
FINA	3203	Derivative Securities	3
FINA	3810	Bloomberg Market Concepts Certification	0
FINA	4303	Fixed Income Securities	3
FINA	4703	ESG Investing	3

*School of Business and Management - BSc in Sustainable and Green Finance*

FINA	4513	Risk Management	3
FINA	4733	Green Finance Case Analyses (TBD)**	3
ISOM	3780	Sustainable Supply Chain Management **	3
MGMT	3170	Managing CSR (Corporate Social Responsibility)	3
ENVR/ SUST			24
Environment and Sustainability Required Courses (Courses from the specified list)			
ENVR	2080	Circular Economy and Life Cycle Assessment **	3
ENVR	3110	Sustainable Development	3
ENVR	3310	Green Business Strategy	3
ENVR	3005	Environmental Sustainability Risks and Challenges**	3
ENVR	4320	ESG Management and Reporting	3
ENVR	4340	Social Sustainability Risks and Challenges**	3
ENVR	4350	Governing Green Finance: National and International Perspectives and Approaches**	3
SUST	1000	Introduction to Sustainability	3
FINA/ ISOM/ MGMT/ LABU/ MATH			22-23
Other Required Courses from the specified list (Students should take FINA 2203 <u>OR</u> FINA 2303; and take MATH 1003 <u>OR</u> MATH 1012 <u>OR</u> MATH 1013 <u>OR</u> MATH 1020 <u>OR</u> MATH 1023.)			
SBMT	1111	Business Student Induction	0
FINA	2203	Fundamentals of Business Finance	3
FINA	2303	Financial Management	3
ISOM	2020	Coding for Business	1
ISOM	2500	Business Statistics	3
ISOM	2600	Introduction to Business Analytics	1
ISOM	2700	Operations Management	3
MGMT	2130	Business Ethics and Social Responsibility	2
LABU	2040	Business Case Analyses	3
LABU	2060	Effective Communication in Business	3
MATH	1003	Calculus and Linear Algebra	3
MATH	1012	Calculus IA	4
MATH	1013	Calculus IB	3
MATH	1020	Accelerated Calculus	4
MATH	1023	Honors Calculus I	3

## Elective(s)

**Minimum  
Credit(s)  
attained**

Sustainable and Green Finance Electives (Courses from the specified elective lists, of which at least 6 credits should be taken from each Area.)

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### Area A: Finance

FINA                      Any FINA courses at 3000- or 4000-level.

**Area B: Sustainability** (at least 3 credits have to be above 3000-level)

ENVR	1070	Thinking Big: Systems Thinking for Environmental Problems	3
ENVR	1080	The Smart Consumer - Uncovering the Hidden Story behind the Product Label	3
ENVR	1170	Big History, Sustainability and Climate Change	3
ENVR	2010	Environmental Science Fundamentals	3
ENVR	3220	Energy Sources and Usage	3
ENVR	3420	Environmental Law and Regulations	3
ENVR	4480	Climate Modeling and Risk Assessment	3

**\*\*Remarks on course(s):**

- FINA 4733:            The course is a new course subject to approval.
- ISOM 3780:           The course is a new course subject to approval.
- ENVR 2080:           The course is a new course subject to approval.
- ENVR 3005:           The course is a new course subject to approval.
- ENVR 4340:           The course is a new course subject to approval.
- ENVR 4350:           The course is a new course subject to approval.

**Bachelor of Science in Sustainable and Green Finance  
Benchmarking**

Program Name	Proposed New Program: Bachelor of Science in Sustainable and Green Finance	HKUST: Bachelor of Science in Quantitative Finance (QFIN)	HKUST: Bachelor of Science in Environmental Management and Technology (EVMT)	University of Leeds: Bachelor of Arts in Environment and Business	University of Reading: Bachelor of Science in Finance (Sustainable Finance)	University of Warwick: Bachelor of Arts and Sciences in Global Sustainable Development and Business Studies
Program Objective	The proposed program will equip students with the essential knowledge and skills in Sustainable and green finance to fill the talent gap and help develop Hong Kong into a leading international green finance center.	Equip students with knowledge and skills to solve complex financial problems and be well prepared for professional qualifications.  Graduates are typically employed by investment banks, commercial banks, hedge fund, asset management firms, brokerage firms, insurance companies, consulting firms, the Big Four auditors, private equity firms, government agencies as well as many other types of both small and large well-known corporations.	Equip students with a focus on solving complex environmental problems in the complex world to pursue a career in environmental management.	Combines the study of environmental and sustainability issues with sound business and management practice.  Graduates will work in private companies, non-governmental organisations or the public sector in the areas of environmental consultancy and management, corporate social responsibility.	Develop the key skills and knowledge to meet the changes in financial world by gaining expertise in sustainable finance and business ethics. Studies will be underpinned by core modules on the essentials of business and finance, giving graduates a thorough understanding of the financial sector.	A holistic approach to exploring issues surrounding sustainability, including climate change, energy security, and wealth inequality. Graduates will have developed critical knowledge of sustainability, and the skills necessary to transfer this knowledge into the world of business.
Degree Type	Bachelor of Science in Sustainable and Green Finance	Bachelor of Science in Quantitative Finance	Bachelor of Science in Environmental Management and Technology	Bachelor of Arts in Environment and Business	Bachelor of Science in Finance (Sustainable Finance)	Bachelor of Arts and Sciences in Global Sustainable Development and Business Studies
Duration of Study	4 years	4 years	4 years	3 years (4 years with placement year)	3 years (4 years with placement year)	3 years (3 years with integrated study abroad programme) (4 years with study abroad or placement year)
Admission	Direct admission	Direct admission	Direct admission	Direct admission	Direct admission	Direct admission
Credit Requirements	120 credits	120 credits	120 credits	360 credits	Not stated on the website	360 credits
Programme Requirements	<p><b>University Common Core (Revamped) (30 credits)</b></p> <p><b>Major Requirements (70 credits)</b></p> <p><i>(i) Business and Finance Required Courses (24 credits)</i></p> <ul style="list-style-type: none"> <li>FINA3103 - Intermediate Investments (3 credits)</li> <li>FINA3203 – Derivatives Securities (3 credits)</li> <li>FINA3810 - Bloomberg Market Concepts Certification (0 credit)</li> <li>FINA4303 - Fixed Income Securities (3 credits)</li> <li>FINA4703 - ESG Investing (3 credits)</li> <li>FINA4513 - Risk Management (3 credits)</li> <li>FINA4733 - Green Finance Case Analyses (TBD) (3 credits)</li> <li>ISOM3780 - Sustainable Supply Chain Management (3 credits)</li> <li>MGMT3170 - Managing CSR (Corporate Social Responsibility) (3 credits)</li> </ul>	<p><b>University Common Core (36 credits)</b></p> <p><b>School Requirements (33-34 credits)</b></p> <ul style="list-style-type: none"> <li>FINA2303 - Financial Management (3 credits)</li> <li>ACCT2010 - Principles of Accounting I (3 credits)</li> <li>ECON2103/2113 - Principles of Microeconomics/Microeconomics (3 credits)</li> <li>ECON2123/3123 - Macroeconomics/ Macroeconomic Theory I (3 credits)</li> <li>ISOM2010 - Introduction to Information Systems (3 credits)</li> <li>ISOM2020 - Coding for Business (1 credit)</li> <li>ISOM2500 - Business Statistics (3 credits)</li> <li>ISOM2600 - Introduction to Business Analytics (1 credit)</li> <li>MGMT2010 - Business Ethics and the Individual (2 credits)</li> <li>MGMT2130 - Business Ethics and Social Responsibility (2 credits)</li> </ul>	<p><b>University Common Core (36 credits)</b></p> <p><b>Fundamental Courses (10 -11 credits)</b></p> <ul style="list-style-type: none"> <li>COMP 1021/1022P/ISOM 2010 - Introduction to Computer Science/ Introduction to Computing with Java/ Introduction to Information Systems (3 credits)</li> <li>LANG2082 - Communication for Environmental Management and Technology I (2 credits)</li> <li>LANG2083 - Communication for Environmental Management and Technology II (2 credits)</li> <li>MATH1003/1012/1013/1020/1023 - Calculus and Linear Algebra/ Calculus IA/ Calculus IB/ Accelerated Calculus/ Honors Calculus I (3-4 credits)</li> </ul> <p><b>Business Requirements (21 credits)</b></p> <ul style="list-style-type: none"> <li>ECON2103/2113 - Microeconomics (3 credits)</li> <li>MGMT2110 - Organizational Behavior (3 credits)</li> </ul>	<p><b>Year 1 (120 credits)</b></p> <p><i>Compulsory Modules</i></p> <ul style="list-style-type: none"> <li>Understanding Social Enterprises (10 credits)</li> <li>Sustainable Development (20 credits)</li> <li>Skills for Environmental Social Science (10 credits)</li> <li>Introduction to Business, Environment and Corporate Responsibility (20 credits)</li> <li>Environmental Science for Environmental Management (20 credits)</li> </ul> <p><i>Optional Modules (Choose 20 to 40 credits)</i></p> <ul style="list-style-type: none"> <li>Foundation Mathematics for Social Sciences* (10 credits) *Students WITHOUT A-Level Maths or equivalent or AS Level Maths with a grade of A-C are required to study the course. Students who have completed A-Level Maths or</li> </ul>	<p><b>Year 1 (120 credits)</b></p> <p><i>Compulsory Modules</i></p> <ul style="list-style-type: none"> <li>Introductory Securities and Markets (20 credits)</li> <li>Introductory Finance/Trading Simulation I (20 credits)</li> <li>Introductory Economics for Business and Finance (20 credits)</li> <li>Introductory Quantitative Techniques for Business and Finance (20 credits)</li> <li>Ethics in Investment Management (BSc) (20 credits)</li> <li>Business in Practice: Accounting for Managers (20 credits)</li> </ul> <p><b>Year 2 (Not stated the no. of credits)</b></p> <p><i>Compulsory Modules</i></p> <ul style="list-style-type: none"> <li>Corporate Finance (20 credits)</li> <li>Portfolio Management (BSc) (20 credits)</li> <li>Financial Modelling (20 credits)</li> </ul>	<p><b>Year 1 (120 credits)</b></p> <p><i>GSD Modules (60 credits)</i></p> <ul style="list-style-type: none"> <li>Economic Principles of Global Sustainable Development (15 credits)</li> <li>Environmental Principles of Global Sustainable Development (15 credits)</li> <li>Social Principles of Global Sustainable Development (15 credits)</li> <li>Core Global Sustainable Development Project module (15 credits)</li> </ul> <p><i>Business Studies Modules (60 credits)</i></p> <ul style="list-style-type: none"> <li>Choice of optional first year modules offered by Warwick Business School</li> </ul> <p><b>Year 2 (120 credits)</b></p> <p><i>GSD Modules (30 credits)</i></p> <ul style="list-style-type: none"> <li>Health and Sustainable Development (30 credits)</li> </ul>



Program Name	Proposed New Program: Bachelor of Science in Sustainable and Green Finance	HKUST: Bachelor of Science in Quantitative Finance (QFIN)	HKUST: Bachelor of Science in Environmental Management and Technology (EVMT)	University of Leeds: Bachelor of Arts in Environment and Business	University of Reading: Bachelor of Science in Finance (Sustainable Finance)	University of Warwick: Bachelor of Arts and Sciences in Global Sustainable Development and Business Studies
	<p><i>(ii) Environment and Sustainability Required Courses (24 credits)</i></p> <ul style="list-style-type: none"> <li>SUST1000 - Introduction to Sustainability (3 credits)</li> <li>ENVR2080 - Circular Economy and Life Cycle Assessment (3 credits)</li> <li>ENVR3110 - Sustainable Development (3 credits)</li> <li>ENVR3310 - Green Business Strategy (3 credits)</li> <li>ENVR3005 - Environmental Sustainability Risks and Challenges (3 credits)</li> <li>ENVR4320 - ESG Management and Reporting (3 credits)</li> <li>ENVR4340 - Social Sustainability Risks and Challenges (3 credits)</li> <li>ENVR4350 – Governing Green Finance: National and International Perspectives and Approaches (3 credits)</li> </ul> <p><i>Other Required Courses (22-23 credits)</i></p> <ul style="list-style-type: none"> <li>SBMT1111 Business Student Induction (0 credit)</li> <li>FINA2203 or 2303 - Financial Management (3 credits)</li> <li>ISOM2020 - Coding for Business (1 credit)</li> <li>ISOM2500 - Business Statistics (3 credits)</li> <li>ISOM2600 - Introduction to Business Analytics (1 credit)</li> <li>ISOM2700 - Operations Management (3 credits)</li> <li>LABU2040 - Business Case Analyses (3 credits)</li> <li>LABU2060 - Effective Communication in Business (3 credits)</li> <li>MATH 1003 or 1012 or 1013 or 1020 or 1023 Calculus (3-4 credits)</li> <li>MGMT2130 - Business Ethics and Social Responsibility (2 credits)</li> </ul> <p><b>Electives Requirements (18 credits)</b></p> <p><i>Area A: Finance</i></p> <ul style="list-style-type: none"> <li>Any FINA courses at 3000- or 4000-level</li> </ul> <p><i>Area B: Sustainability</i></p>	<ul style="list-style-type: none"> <li>SBMT1111 - Business Student Induction (0 credit)</li> <li>LABU2040 - Business Case Analyses (3 credits)</li> <li>LABU2060 - Effective Communication in Business (3 credits)</li> <li>MATH1003/1012/1013/1020/1023 - Calculus and Linear Algebra/ Calculus IA/ Calculus IB/ Accelerated Calculus/ Honors Calculus I (3-4 credits)</li> </ul> <p><b>Major Requirements (41-45 credits)</b></p> <ul style="list-style-type: none"> <li>FINA2101 - Introduction to Finance (1 credit)</li> <li>FINA3103 - Intermediate Investments (3 credits)</li> <li>FINA3203 - Derivative Securities (3 credits)</li> <li>FINA3303 - Intermediate Corporate Finance (3 credits)</li> <li>FINA3810 - Bloomberg Market Concepts Certification (0 credits)</li> <li>FINA4803 - Quantitative Trading (3 credits)</li> <li>ECON3334 - Introduction to Econometrics (4 credits)</li> <li>ISOM3230 - Business Applications Programming (3 credits)</li> <li>MATH1014/1024 - Calculus (3 credits)</li> <li>MATH2011/2023 - Multivariable Calculus (3 credits)</li> <li>QFIN - Restricted Electives (18 credits)</li> </ul>	<ul style="list-style-type: none"> <li>FINA2203 - Fundamentals of Business Finance (3 credits)</li> <li>ISOM2500 - Business Statistics (3 credits)</li> <li>ENVR 3310 - Green Business Strategy (3 credits)</li> <li>ENVR3410 - Economics for Environment Policy and Management (3 credits)</li> <li>ENVR4320 - ESG Management and Reporting (3 credits)</li> </ul> <p><b>Environment Requirements (21 credits)</b></p> <ul style="list-style-type: none"> <li>ENVR1170 - Big History, Sustainability and Climate Change (3 credits)</li> <li>ENVR2010 - Environmental Science Fundamentals (3 credits)</li> <li>ENVR2030 - Material and Energy Balance for Environmental Management (3 credits)</li> <li>ENVR3110 - Sustainable Development (3 credits)</li> <li>ENVR3210 - Environmental Technology (3 credits)</li> <li>ENVR3220 - Energy Sources and Usage (3 credits)</li> <li>ENVR3420 - Environmental Law and Regulations (3 credits)</li> </ul> <p><b>Professional Development Courses (11 credits)</b></p> <ul style="list-style-type: none"> <li>ENVR1001 - EVMT Orientation (0 credits)</li> <li>ENVR2001 - Academic and Professional Development I (1 credit)</li> <li>ENVR3001 - Academic and Professional Development II (1 credit)</li> <li>ENVR4001 - Academic and Professional Development III (1 credit)</li> <li>ENVR4980 - Environmental Management and Technology Capstone Project I (3 credits)</li> <li>ENVR4990 - Environmental Management and Technology Capstone Project II (3 credits)</li> <li>LANG3081 - Communication for Environmental Management and Technology III (2 credits)</li> </ul> <p><b>Elective Courses (12 credits)</b></p>	<p>equivalent or already have AS Level Maths Grade C or above must NOT enrol in the course.</p> <ul style="list-style-type: none"> <li>An Introduction to Law: What is Law? (10 credits)</li> <li>Introduction to Enterprise and Entrepreneurship (10 credits)</li> <li>Introduction to Management (10 credits)</li> <li>Introduction to Effective Decision Making (10 credits)</li> <li>Organisational Behaviour (20 credits)</li> <li>Natural Hazards (10 credits)</li> <li>Ecology (10 credits)</li> <li>Atmosphere (10 credits)</li> <li>Environmental Politics and Policy (10 credits)</li> </ul> <p><i>Discovery Modules (take up to 20 credits)</i></p> <p>The opportunity to broaden the studies beyond the core discipline, as represented by the Discovery Themes, is integrated into many programmes of study within the available combinations of compulsory and optional modules.</p> <p><b>Year 2 (120 credits)</b></p> <p><i>Compulsory Modules</i></p> <ul style="list-style-type: none"> <li>Managing Innovation in Business (10 credits)</li> <li>Personal Development for Careers in the Environmental Sector (10 credits)</li> <li>Tools and Techniques for Business, Environment and Corporate Responsibility (20 credits)</li> <li>Research in the Environmental Social Sciences (30 credits)</li> <li>Economics and Sustainability (10 credits)</li> </ul> <p><i>Optional Modules (Choose 20 to 40 credits)</i></p> <ul style="list-style-type: none"> <li>International Law (20 credits)</li> <li>Leadership in Business (10 credits)</li> <li>Anthropology for Business (10 credits)</li> <li>Principles of Marketing (10 credits)</li> <li>Principles of Corporate Strategy (10 credits)</li> </ul>	<p><i>Optional Modules</i></p> <ul style="list-style-type: none"> <li>Introductory Econometrics for Finance (20 credits)</li> <li>Trends in Finance (20 credits)</li> <li>FX and International Debt Markets (20 credits)</li> </ul> <p><i>Work Placement</i></p> <ul style="list-style-type: none"> <li>Work Mini-Placement (0 credits)</li> </ul> <p><b>Year 3 (Not stated the no. of credits)</b></p> <p><i>Compulsory Modules</i></p> <ul style="list-style-type: none"> <li>Management of Risk (20 credits)</li> <li>Derivative Securities (20 credits)</li> <li>New Directions in Business and Corporate Social Responsibility (20 credits)</li> <li>Responsible Investment and Sustainability Reporting (20 credits)</li> </ul> <p><i>Optional Modules</i></p> <ul style="list-style-type: none"> <li>Financial Engineering (20 credits)</li> <li>Research Project (BSc) (20 credits)</li> <li>Private Equity and Venture Capital (20 credits)</li> <li>Finance and Occupational Pensions (20 credits)</li> <li>Bonds and Money Markets (20 credits)</li> <li>Fintech and Cryptocurrencies (20 credits)</li> </ul>	<ul style="list-style-type: none"> <li>Security, Sovereignty and Sustainability in the Global Food System (30 credits)</li> <li>Inequalities and Sustainable Development: Inclusion and Dignity for All (30 credits)</li> </ul> <p><i>GSD Focus Module(s) (30 credits)</i></p> <p><i>Business Studies Modules (60 credits)</i></p> <p><b>Year 2 (Integrated year with Terms 2 and 3 spent abroad)</b></p> <p>Term 1 (60 credits)</p> <p><i>GSD module (15 credits)</i></p> <ul style="list-style-type: none"> <li>Health and Sustainable Development (15 credits)</li> <li>Security, Sovereignty and Sustainability in the Global Food System (15 credits)</li> <li>Inequalities and Sustainable Development: Inclusion and Dignity for ALL (15 credits)</li> </ul> <p><i>GSD Focus Module (15 credits)</i></p> <p><i>Business Studies Modules (30 credits)</i></p> <p>Term 2 &amp; 3 (Spent abroad)</p> <p><b>Final Year (120 credits)</b></p> <p><i>GSD Modules (30 credits)</i></p> <p><i>GSD Focus Module(s) (30 credits)</i></p> <p><i>Business Studies Modules (60 credits)</i></p>

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	<ul style="list-style-type: none"> <li>• ENVR1070 - Thinking Big: Systems Thinking for Environmental Problems (3 credits)</li> <li>• ENVR1080 - The Smart Consumer - Uncovering the Hidden Story behind the Product Label (3 credits)</li> <li>• ENVR1170 - Big History, Sustainability and Climate Change (3 credits)</li> <li>• ENVR2010 - Environmental Science Fundamentals (3 credits)</li> <li>• ENVR3220 - Energy Sources and Usage (3 credits)</li> <li>• ENVR3420 - Environmental Law and Regulations (3 credits)</li> <li>• ENVR4480 - Climate Modeling and Risk Assessment (3 credits)</li> </ul>			<ul style="list-style-type: none"> <li>• Advanced Management Decision Making (10 credits)</li> <li>• Climate Change: Society and Human Dimensions (10 credits)</li> <li>• People, Sustainability, and the Environment (20 credits)</li> <li>• Environmental Impact Assessment (10 credits)</li> <li>• Environmental Policy and Governance (10 credits)</li> <li>• Managing Biodiversity (10 credits)</li> <li>• Transport, Energy and Environment (10 credits)</li> </ul> <p><i>Discovery Modules (Take up to 20 credits)</i></p> <p><b>Year 3 (120 credits)</b></p> <p><i>Compulsory Modules</i></p> <ul style="list-style-type: none"> <li>• International Business Management (20 credits)</li> <li>• Environmental Research Project (40 credits)</li> <li>• Business and Sustainable Development (10 credits)</li> </ul> <p><i>Optional Modules (choose 30 to 50 credits)</i></p> <ul style="list-style-type: none"> <li>• Geographers into Teaching: School Placements (20 credits)</li> <li>• Law and the Environment II: Governing the Environment (10 credits)</li> <li>• Environmental Law (20 credits)</li> <li>• Enterprise Consultancy (20 credits)</li> <li>• Current Issues in Decision Making (20 credits)</li> <li>• Managing Innovation and Technology (20 credits)</li> <li>• Environmental Risk: Science, Policy and Management (10 credits)</li> <li>• Sustainable Consumption (10 credits)</li> <li>• Strategic Energy Issues (10 credits)</li> </ul> <p><i>Discovery modules (take up to 20 credits)</i></p>		
Website	N/A	<a href="http://www.bm.ust.hk/fina/programs/bsc-in-quantitative-finance/bsc-qf-overview">http://www.bm.ust.hk/fina/programs/bsc-in-quantitative-finance/bsc-qf-overview</a>	<a href="http://www.evmt.ust.hk/programs/undergraduate-program/bsc-in-evmt/program-introduction/">http://www.evmt.ust.hk/programs/undergraduate-program/bsc-in-evmt/program-introduction/</a>	<a href="https://courses.leeds.ac.uk/a467/environment-and-business-ba">https://courses.leeds.ac.uk/a467/environment-and-business-ba</a>	<a href="https://www.icmacentre.ac.uk/study/undergraduate/bsc-finance-sustainable-finance#modules">https://www.icmacentre.ac.uk/study/undergraduate/bsc-finance-sustainable-finance#modules</a>	<a href="https://warwick.ac.uk/fac/arts/schoolofcross-facultystudies/gsd/prospectivestudents/undergraduate/jointhonours/gsdbusiness">https://warwick.ac.uk/fac/arts/schoolofcross-facultystudies/gsd/prospectivestudents/undergraduate/jointhonours/gsdbusiness</a>

Recommended Study Pathway

Bachelor of Science in Sustainable and Green Finance

University Common Core (Revamped)	30 credits
Business and Finance Required Courses	24 credits
Environment and Sustainability Required Courses	24 credits
Other Required Courses	22-23 credits
Finance and Sustainability Elective Courses	18 credits
= 118-119 credits	

Year 1 Fall			Year 1 Spring			Year 2 Fall			Year 2 Spring		
Course Code	Course Name	Credit	Course Code	Course Name	Credit	Course Code	Course Name	Credit	Course Code	Course Name	Credit
ISOM 2500	Business Statistics	3	FINA 2203	Fundamentals of Business Finance	3	LABU 2040	Business Case Analyses	3	LABU 2060	Effective Communication in Business	3
MATH 1003	Calculus and Linear Algebra	3	ISOM 2700	Operations Management	3	ENVR 3110	Sustainable Development	3	FINA 3103	Intermediate Investments	3
SBMT 1111	Business Student Induction	0	ISOM 2020	Coding for Business	1	ENVR 2080	Circular Economy and Life Cycle Assessment	3	FINA 3203	Derivative Securities	3
SUST 1000	Introduction to Sustainability	3	ISOM 2600	Introduction to Business Analytics	1	ISOM 3780	Sustainable Supply Chain Management	3	FINA 3810	Bloomberg Market Concepts Certification	0
Cognitive Foundations of University Education: Critical Thinki		3	Behavioral Foundations of University Education: Habits, Mindset:		3	Common Core Broadening 1		3	ENVR Elective		3
LANG1002		3	Chinese Communication		3				Common Core Broadening 2		3
			LANG1003		3						
		15			17			15			15

Year 3 Fall			Year 3 Spring			Year 4 Fall			Year 4 Spring		
Course Code	Course Name	Credit	Course Code	Course Name	Credit	Course Code	Course Name	Credit	Course Code	Course Name	Credit
FINA 4303	Fixed Income Securities	3	FINA 4513	Risk Management	3	FINA 4703	ESG Investing	3	FINA 4733	Green Finance Case Analyses (TBD)	3
MGMT 2130	Business Ethics and Social Responsibility	2	MGMT 3170	Managing CSR (Corporate Social Responsibility)	3	ENVR 4320	ESG Management and Reporting	3	ENVR 4350	Governing Green Finance: National and International Perspectives and Approaches	3
ENVR 3310	Green Business Strategy	3	ENVR 3005	Environmental Sustainability Risks and Challenges	3	ENVR 4340	Social Sustainability Risks and Challenges	3	FINA Elective (3000-level)		3
FINA Elective (3000-level)		3	ENVR Elective		3	FINA Elective (3000-level)		3	ENVR Elective (3000-level)		3
Common Core Broadening 3		3	Common Core Broadening 4		3	UxOP (UROP, UTOP, UPOP, UCOP)		3	Additional Credits for graduation (Min. 120)		3
		14			15			15			15

# THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

## BSc in Sustainable and Green Finance New Courses

<b>FINA 4513 Risk Management</b>	<b>3 credits</b>
<p><u>Description</u></p> <p>This course covers the role of risk management in supporting companies as they strive to balance the internal and external risk factors surrounding the operation of their business model against their various stakeholder obligations. Topics include a review of basic hedging strategies (knowledge of futures and options is pre-requisite), the theory and evidence on the value of corporate risk management, review of the major surveys of risk management practices, business-case studies highlighting advanced derivatives and risk-management strategies, an illustrative model of integrated enterprise risk-management (featuring Monte-Carlo simulation), and student-led risk-management audits.</p>	
<b>FINA 4703 ESG Investing</b>	<b>3 credits</b>
<p><u>Description</u></p> <p>This course focuses on the relevance of sustainability factors on financial performance of firms and securities. Topics in this course include the market terminology, practices, usages and impact of environmental, social and governance (ESG) factors and climate risk. Students will learn to analyze complex financial problems, adapt investment strategies to meet business needs, propose solutions that maximize stakeholder value, and apply ESG related concepts to the process of investment management and valuation.</p>	
<b>ISOM 3780 Sustainable Supply Chain Management</b>	<b>3 credits</b>
<p><u>Description</u></p> <p>This course is designed for students interested in sustainable supply chain management. Sustainable supply chain management involves integrating operationally, environmentally and financially viable practices into the complete supply chain lifecycle, from product design and development, to material selection, manufacturing, transportation, warehousing, distribution, consumption, return and disposal. The objective is to foster organizations to optimize their cost savings and profitability with environmentally sustainable considerations. This is a hands on course, with heavy emphasis on case studies drawn from successful implementations of sustainable practices of global companies across the globe. For SGFN and non-OM students only.</p> <p><i>*The proposed course will be offered in a blended learning mode. Concurrence from the Center for Education Innovation (CEI) is pending.</i></p>	
<b>ENVR 2080 Circular Economy and Life Cycle Assessment</b>	<b>3 credits</b>
<p><u>Description</u></p> <p>This course identifies the purpose of green finance as a means to promote and enable sustainable and resource-conserving economic systems.</p> <p>While viable benchmarks and concepts for sustainable development exist, economic decision-makers and financial institutions by and large still focus on economic profit, leaving environmental and societal sustainability outside of their cost-benefit assessments. In order to provide an alternative approach that guides financial investment towards green ventures, the course offers insights into sustainable development concepts and respective assessment mechanisms for sustainable corporate performance. These concepts and mechanisms are exemplified in the Circular Economy (CE) and Life Cycle Assessment (LCA), which constitute increasingly important elements in sustainable development.</p> <p>By adopting a multidisciplinary perspective, the classes cover the fundamentals of sustainable concepts, benchmarks on how to measure sustainable performance in the economic domain (i.e., at the corporate-, meso- and system-level) and empirical cases on how green finance has and can make a difference to promote sustainable growth.</p>	

<b>ENVR 3005</b>	<b>Environmental Sustainability: Risks and Challenges</b>	<b>3 credits</b>
<u>Description</u> Human development is fundamentally supported by natural resources. Environmental sustainability ensures the responsible consumption of these resources while maintaining their regenerations without sacrificing the needs of future generations. The course covers the general understanding of key factors contributing to the rates of non-renewable resource depletion, renewable resources recovery, and pollution generation. Emergent challenges to environmental sustainability include energy, food, land use, water resource, and novel chemicals. Risks associated with these challenges like climate change, water scarcity, and soil degradation, ecosystem health, and biodiversity loss will be assessed. These risks will become catastrophic if no proper action is taken in view of the current rate of human development. Hence, the course outlines the fundamental concepts and practices of managing environmental risks: prevention, preparedness, response, and recovery (PPRR). Fundamental risk analysis techniques will also be introduced to identify and quantify the environmental risks.		
<b>ENVR 4340</b>	<b>Social Sustainability: Risks and Challenges</b>	<b>3 credits</b>
<u>Description</u> Social sustainability is the least defined and least understood of the different ways of approaching sustainability. Nevertheless, reflecting on countries or regions where internal conflicts are fierce, it is clear that environmental or economic sustainability would be difficult without social stability or sustainability. In this course, referencing the Sustainable Development Goals (SDG) championed by the United Nations, we shall examine the challenges regarding social sustainabilities. This course shall first provide a review of the SDGs, highlighting the SDGs related to social sustainability and using them to discuss how their progress is measured and improved in various counties. The course shall also discuss existing and emerging challenges to social sustainability and the risks and impacts when countries fail to improve upon these goals. Case studies and quantitative analyses will be used as much as possible.		
<b>ENVR 4350</b>	<b>Governing Green Finance: National and International Perspectives and Approaches</b>	<b>3 credits</b>
<u>Description</u> This course covers the study of the instruments of green finance and the organizations and/or institutions that design, implement, and monitors them, in short, the actors of and the dynamics in the governance of green finance. The course offers students an opportunity to review, evaluate, assess, appraise, and critique the various approaches and perspectives around the instruments, institutions, and challenges of green finance, nationally, regionally, and internationally. The course uses examples from cities, national governments, countries/states, regional institutions, and the United Nations to illustrate the processes of governing green finance. Using an interdisciplinary lens, the course uses concepts from public administration, public policy, international relations, development studies, science and technology studies, and human geography to shed light and bring out a critical analysis of the multiple actors and institutions of green finance governance, and their interests. This interactive course heavily relies on the learners' active engagement in class activities through pair or small-group discussions, role plays, and debates.		

*Note: The required course FINA 4733 Green Finance Case Analyses will be offered only in Fall 2024 or Fall 2025. The course proposal would be submitted nearer the time it is offered.*