CUS/13 January 2021
Agenda Item 7
File: 04/21

COMMITTEE ON UNDERGRADUATE STUDIES

Paper for: Discussion/Decision

Title: **Final Proposal for the Revised Framework of the Undergraduate Common Core Program**

Purpose: The Steering Committee on Review of the Common Core submitted the final proposal for the revised structural framework of the Common Core Program, effective for the 2022-23 student intake, to CUS for discussion and endorsement

Submitted by: Steering Committee on Review of the Common Core

Prepared by: Committee on Undergraduate Studies

BACKGROUND

1. The Committee on Undergraduate Studies (CUS) discussed the initial proposal on the Revised Framework of the Undergraduate Common Core Program, as submitted by the Steering Committee on Review of the Common Core, at its 166th meeting on 11 November 2020. Comments and issues raised by CUS were subsequently conveyed to Steering Committee by the Secretariat (Appendix 1). The Steering Committee was required to address those issues and concerns, and provide responses in the final program proposal.

2. Given that the revisions recommended by the Steering Committee are substantial changes to the existing framework, CUS put forth the initial proposal to Senate for discussion at its 152nd meeting on 8 December 2020 so that the Steering Committee could also take into account Senate's comments when refining the proposal.

3. Senate noted that the Common Core aims to uphold the spirit of broadening the breadth of students. The three-tier structure under the revised Framework expects that students take common courses of Foundation Group, which set the tone of the University's mission and values, in their first year of studies, and would be given flexibility in choosing courses of different categories under Broadening Group and Experiencing Group as they progress to senior years. Senate supported the revamp to be proceeded with, while addressing the concerns (e.g., keeping certain extent of flexibility while retaining simplicity of exclusions for Broadening Group courses; simplifying the proposed revisions; and implementation of the proposed changes by phases) raised as appropriate.

FINAL PROPOSAL

4. Having considered the comments collected from the CUS and Senate meetings, the Steering Committee has submitted the final proposal (Appendix 2). The following summarizes key issues raised by the CUS and Senate being addressed/considered. More details can be found in paragraphs 16 and 17 of Appendix 2 respectively.

a. It was clarified that the Committee on Undergraduate Common Core (CUCE) would remain the party responsible for overseeing the Common Core. Organizational and administrative support will be needed, especially for the UxOP;
b. The current practice of allowing students to take Chinese Communication even after Year 1 shall be continued to prevent posing pressure on class timetabling;
c. Prevailing practice of granting students with special needs from specific activities under the Behavioral Foundations of University Education: Habits, Mindsets, and Wellness may continue;
d. Different UxOP components would be piloted before full implementation;
e. Mechanisms (e.g., clear and consistent rubrics integrated into the scaffolding structure will be in place to ensure consistency of grading across the four UxOP streams;
f. Double-counting will be allowed for Minor programs, since this supports the objective of broadening students' interests beyond their major area of study;
g. "Creative and Computational Arts (A)" under the Broadening group be renamed "Arts" for simplicity purpose;
h. The suggestion about further sub-dividing the "Social Analysis" section by School has not been incorporated as it may not serve the broadening objective;
i. The Steering Committee had given due deliberation about the suggestion of implementing the revised Framework in phase, however, it was considered not feasible;
j. A Working Group, under CUCE, would be formed subject to Senate's approval for the revised Framework. The Working Group, comprising representatives from Schools/IPO, HUMA, SOSC, CLE, CEI, ARO and ITSC, would advise and make recommendations to CUCE on the implementation of the new Common Core Framework;
k. Several faculty groups across different Schools/IPO have started to work on those new courses targeting for introduction during the pilot run; and
l. Proposals for new courses would be submitted after Senate's approval of the revised Framework, an exceptional approval granted by the Senate given the complexity of the revamp.

ACTION SOUGHT

5. CUS is invited to consider and recommend, as appropriate, to the Senate for approval the Revised Framework of the Undergraduate Common Core Program as presented in paragraphs 19 (i) to (vii) of Appendix 2 and Appendix 2a (with 13 attachments) for introduction in Fall 2022-23.

From:	Senate Committee on Undergraduate Studies
To:	Anirban Mukhopadhyay
Cc:	Andrew Brian HORNER; Anirban Mukhopadhyay; Sophie TSA; LUK Anne
Subject:	Initial Proposal for the Revised Undergraduate Common Core Program
Date:	13 November 2020 16:23:00

To: Prof Anirban MUKHOPADHYAY, Chair of Steering Committee on Review of the Common Core

From: CUS Secretariat

cc: Prof Andrew HORNER, Chair of CUS
Prof Anirban MUKHOPADHYAY, Secretary of CUS

Subject: Initial Proposal for the Revised Undergraduate Common Core Program

At its meeting on 11 November 2020, the Committee on Undergraduate Studies (CUS) considered the initial proposal for the Revised Undergraduate Common Core Program submitted by the Steering Committee on Review of the Common Core (Steering Committee). Members expressed positive support for the initiative.

CUS would like to share with the Steering Committee its comments/suggestions as follows; and the Steering Group is invited to address them when presenting the proposal for final approval.

(a) Though UxOP would only be implemented three years from now, a pilot run was considered crucial to better prepare for the large-scale implementation, as it may take more than one trial run to iron out possible problems.

(b) Mechanisms should be in place to ensure consistency of grading across the four UxOP streams.

(c) There should be a clear indication regarding the party responsible for evaluating the Common Core courses.

(d) The workload for UxOP arrangements, in particular, the matching of students with the theme-based projects as well as internships would be huge. The Senior Management was aware of the potential resource implications.

(e) It was noted that students could choose from a range of activities for the "Wellbeing" course. Students with special needs could be given exceptions according to the prevailing practice, should the department see fit.

(f) Given that students would be required to take the foundation courses in year 1, this might pose pressure on class timetabling. Measures such as the adoption of sub-sessions for the courses and pre-assigning of courses might need to be explored. The said requirement might also affect the arrangement of some Majors which required students to take a certain number of foundation courses during the first year of study.

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

For details regarding the CUS meeting and paper submission schedule, please contact Ms Anne LUK of the Secretariat at ext. 6009.

STEERING COMMITTEE ON REVIEW OF THE COMMON CORE

Final Proposal for the Revised Framework of the Undergraduate Common Core Program

BACKGROUND

1. The current 36-credit Common Core structure has been implemented since 2012. Its stated mission is to "support the mission and vision of HKUST by providing a broad and well-rounded education to its undergraduates". This mission is echoed in the University's Strategic Plan for 2021-28, with stated priorities to "broaden learning experience" and "overcome academic boundaries".

2. In the decade since the inception of the Common Core, there have been speedy changes in global technology trends, and the rising importance of cross-disciplinary studies (e.g., sustainability) has rendered skillsets such as critical thinking and data analytics even more critical. In this context, the objectives, structure, and implementation of the Common Core Program and its components should be re-considered so as to adequately equip students for future challenges.

3. Over 260 courses are currently offered as part of the Common Core. Under the existing policy, 6-9 credits can be "double-counted" thereby fulfilling both the Common Core requirement and School/Major requirements, and currently about 50% of Common Core courses can be double-counted towards School/Major requirements. A recent study by the Undergraduate Core Education Office found that this double-counting policy has led to undesirable consequences, such as (a) Confusion among students about what the Common Core represents; (b) Difficulty for instructors to cater to two groups of students having different objectives and motivations, with some students taking the course as a Major requirement and others as a Common Core course, and (c) An effective reduction in the number of credits used for broadening purposes.

4. More critically, it was also found that students gravitate to courses closely related to their Majors, and the number of courses taken outside the School of a given student's Major may be even less than in the previous 3 Year curriculum, thereby raising concerns about how we achieve the broadening objective of the Common Core. Under the current framework, most Common Core courses do not have any pre-requisite requirements. Consequently, there may be a need for additional rules to restrict students' choices of courses.

5. This distributional model also leads to a low commonality of experience since over 260 courses are offered in all and students tend to take very different subsets of courses with a few exceptions. Students therefore question why they need to spend time and effort on the Common Core, and the very identity of the Common Core program is unclear.

6. In the above light, the Committee on Undergraduate Studies (CUS) at its 157th meeting in January 2019 proposed and endorsed the establishment of a Steering Committee on Review of the Common Core, to advise and make recommendations to the CUS and the Senate on the

goals and objectives, and the composition and requirements of the Common Core Program. The proposed Steering Committee was approved by the Senate at its 144th meeting in February 2019. Subsequently, an extension of the timeline for the review of the Common Core, and an update of the membership of the Steering Committee, were approved by the Senate via CUS in April 2020 and October 2020 respectively.

REVIEW OF THE COMMON CORE PROGRAM

7. Since its setup, the Steering Committee met twelve times from April 2019 to December 2020, with a significant interlude from October 2019 to April 2020 due to unforeseen events including the social unrest and the coronavirus pandemic. The Steering Committee reviewed the objectives, and requirements of the Common Core Program. In view of the concerns stated above, the Steering Committee studied the HKUST and societal expectations, and graduate attributes in particular. It was noted that the updated set of skills (Industrial 4.0) for students to acquire has changed, and the existing "distributional" model may not be an effective way to achieve the "broadening horizons" goal. It was viewed that through the cross-disciplinary areas in data science, AI, sustainability, etc. students could be widened in their exposures and learning experiences. As demonstrated in the AY18/19 and 19/20 Annual Assessments of Graduate Attributes (AAGA), our students' scores in critical thinking (CCTST), self-directed learning readiness (SDLR), and information literacy (IL), were flat or even declining. Feedback from our graduates' employers reveals that there is an imperative for the University to invest in and strengthen our teaching of generic transferable skills, including critical thinking and data analytics, that will be necessary for the skilled workforce of the future.

8. In the review process, the Steering Committee discussed the intended learning outcomes of the Common Core program. The Committee agreed that the Common Core should be complementary to students' Majors and School requirements to better achieve the broadening objective; however, it was also felt that the program should be a real "common core" with a subset of courses common to all students to teach transferable knowledge and skills including cognitive skills, communication skills, and group work that are required for every student.

9. For an in-depth analysis of structures and requirements of the Common Core/General Education (GE) programs, the Steering Committee reviewed in detail the GE review reports of the following overseas universities that had recently revamped their own programs: Harvard University, Princeton University, the University of Arizona, the Ohio State University, the California State University, and Nanyang Technological University.

10. It was noted that there are different models of Common Core/GE programs, including open model, distributional model, core model, and hybrid model. The current HKUST Common Core model is a distributional one. Most of the GE programs under review were found to involve relatively heavy workloads and focused not on results and knowledge accumulation but on processes. The Steering Committee observed, for example, that the Harvard model is very broadening in its structure because it includes generic and disciplinary courses and does not allow double-counting. The model helps to holistically integrate what students have learnt.

11. Taking advantage of the opportunity that a recent HKU PhD student had compared the 2012 Common Core and GE reforms carried out by HKUST, HKU, and CUHK for his

dissertation research, the Steering Committee invited him to make a presentation. The following points were among the main findings and conclusions of this research:

i. Common Core is a networked curriculum, which, if executed well, could have long-term innovative consequences.
ii. Common Core education by definition should question boundaries and promote critical thinking.
iii. However, compared to the other two universities, HKUST appeared to have less pride in its education and its faculty tend to not acknowledge Common Core as an integral part of the University.
iv. Different from the other two universities, HKUST's relatively collegial approach to the reform of the Common Core in 2012 has led to a program that is relatively loose, unstructured, and lacking in tangible outcomes.
v. The HKUST Common Core needs defined structures that allow for instructor freedom and yet guarantee quality.

12. During the review, the Steering Committee discussed key principles or key values added of the Common Core, in order to capture what the Common Core is about and why we need a Common Core. After deliberation, the suggested key principles are refined as follows:

i. Apply transferable skills in diverse (interdisciplinary cross-cultural) global challenges highly relevant to Hong Kong;
ii. Broaden beyond major program with complementary disciplines to ensure breadth (intellectual empathy);
iii. Focus on the approach and process to develop adaptable mindsets and empathy on top of skillsets;
iv. Enhance holistic well-being by exploring the joy of learning and serving, the beauty and wonders in life, and human values through a positive and growth mindset; and
v. Develop identity in the society and community.

13. Two rounds of consultation were held throughout the review process. First, from September to October 2019, the Convener of the Committee presented a proposed new framework to the Deans/IPO Director, the Committee on Undergraduate Core Education (CUCE), and faculty members in the respective meetings of Schools and IPO. The feedback and inputs received from the consultation were summarized and considered by the Steering Committee in refining the proposed framework. Subsequently, in Fall 2020, the revised proposal was presented to stakeholders in forums including the CUCE meeting, Deans/DIPO's meeting, an open consultation session with faculty members, and a sharing session with nominated students. In parallel with the submission of the initial proposal to the CUS and Senate for consideration, the Convener of the Steering Committee attended several meetings including SSCI and SENG school circles, meetings with Associate Deans, SHSS UG Co-ordinators and faculty from HUMA to address their queries and concerns.

14. After a thorough review and discussion on different aspects and issues, the Steering Committee agreed that as a whole, the existing Mission, Goals, and Objectives of the Common Core are appropriate and do not need to be modified. However, the structure and the implementation of the program to deliver on these goals and objectives, and measure students' progress, needs to be reconsidered.

15. The Steering Committee recommended that structure of the Common Core framework should be changed from a distributional model to a scaffolding model, a model adopted by many new GE curricula among the universities that were referenced. Students should follow a structured progression, and it will be greatly beneficial to be able to assess the learning outcomes and competencies throughout the four years of study. The newly proposed framework, which eliminates double-counting and reduces the credit load to 30 (so there is either no impact, or at most 3 credits, to the study load for all students), will help students learn outside their focal discipline through 15 credits of Foundations courses and 12 credits of Broadening courses. Subsequently, students will base on their interests to apply their cross-disciplinary knowledge and transferable skills and competencies to complete a 3-credit requirement in an Experiencing program. In terms of progression, Foundational core skillsets and mindsets courses need to be taken in Year 1, exposure to Broadening courses outside the Major would be most appropriate in Years 2 and 3, and the **U**ndergraduate e**x**periential **O**pportunities **P**rogram (UxOP) requirement should be taken in Year 3 or 4.

RESPONSES TO ISSUES RAISED DURING CONSULTATIONS

16. The initial proposal for the new structural framework of the Common Core program was submitted to CUS for consideration at its 166th meeting on 11 November 2020. After deliberation, CUS expressed positive support for the initial proposal and conveyed several valuable comments and issues for the Steering Committee to address in the final proposal. Some main responses are listed below:

i. There were concerns about the organizational, administrative, and resource implications. It was clarified that CUCE will remain the party responsible for overseeing the Common Core. Organizational and administrative support will be needed, especially for the UxOP, and the Provost's office has been requested to provide the needed support and resources.
ii. Given that students would be required to take the Foundations courses in year 1, this might pose pressure on class timetabling. Based on this observation, it is proposed that the current practice of allowing students to take Chinese Communication even after Year 1 shall be continued. This proposal is incorporated in paragraph (19).
iii. It was noted that students could choose from a range of activities for the "Wellbeing" course. Students with special needs could be given exemptions from specific activities, according to the prevailing practice, should the Department see fit.
iv. Though UxOP would only be implemented starting Fall 2024, a pilot run was considered crucial to prepare for large-scale implementation. Consistent with this suggestion, the different UxOP components will be piloted well in advance of Fall 2024, with multiple iterations wherever possible.
v. Mechanisms will be in place to ensure consistency of grading across the four UxOP streams. These will be implemented using clear and consistent rubrics integrated into the scaffolding structure.

17. Since the revisions recommended by the Steering Committee are substantial changes to the existing framework, the proposal was presented to the Senate for consideration at its 152nd meeting on 8 December 2020. The Senate had a careful deliberation on the academic aspects of the proposal, with several questions being clarificatory in nature. After discussion, the Senate supported the revamp to be proceeded with, while addressing the concerns raised as appropriate. The following observations are pertinent:

i. Based on feedback obtained at consultation sessions, it was proposed that double-counting should be allowed for Minor programs, since this supports the objective of broadening a student's interests beyond their major area of study. This proposal is incorporated in paragraph 19.

ii. Also based on feedback obtained at consultation sessions, it was proposed that the Arts section should simply be named as "Arts", with the understanding that it will encompass arts of many different types. This proposal is also incorporated in paragraph 19.

iii. A concern was raised about the extent of the revamp, with the suggestion that it would be preferable to change one aspect at a time. However, UCEO has considered this option and considered it difficult to implement.

iv. It was suggested that the Social Analysis section may be further sub-divided by School. An analysis of the current course offerings reveals that this would not serve the broadening objective and may instead place a heavy burden on Schools to provide additional courses. Rather, it was felt preferable to maintain a simple structure.

v. Given the complexity of the program change, including the need for a revision of the course approval form, the Senate approved the request to submit proposals for specific new courses after, and conditional on, final approval of the program change; rather than have the new course proposals submitted simultaneously with the final program change proposal.

vi. Since the membership of the Steering Committee consists of faculty in their personal capacities, and members do not have technical expertise or experience in setting up support systems for a program (such as staff members from ARO, CEI, and ITSC), the Senate gave approval to set up a Working Group to oversee the implementation of the new Common Core, subject to approval of the final program change proposal (as per Paragraph 21).

FINAL PROPOSAL FOR THE NEW FRAMEWORK OF THE COMMON CORE

18. Under the current Common Core structure, there are eight areas including Humanities (H), Social Analysis (SA), Science and Technology (S&T), Quantitative Reasoning (QR), Arts, English Communication, Chinese Communication and Healthy Lifestyle. The total credits amount to 36. Students are required to take 3 credits in the School Sponsored Courses (SSC), each from H, SA and S&T. They can take 6 credits of electives from H, SA, S&T, QR and Arts.

19. The current Common Core model is a distributional one. In order to better achieve the objectives of delivering the Common Core, the following new framework is proposed (more details on the reasons for proposing the changes, feedback from stakeholder, revised student pathway, etc. are presented in Appendix 2a).

i. *Three tiers of Common Core Groups*
In the new framework, courses have been categorized into three groups (new courses in boldface):

CC Group	Credits	Common Core Areas	Credit Breakdown
Experiencing Years 3-4	3	**UxOP: UROP, UTOP, UPOP, UCOP** A choice of 4 structured & carefully designed programs, each with a different focus but commonalities in learning outcomes, requirement for cross-disciplinary, global, and systems thinking and communications, and pre-requisites in Foundations and Broadening	3
Broadening (with specific outcomes) Years 2-3	12	**Arts (A)**	**Program-specific requirements**
		Humanities (H)	
		Science (S)	
		Technology (T)	
		Social Analysis (SA)	
Foundations (Skillsets & Mindsets) Year 1	15	**Cognitive Foundations of University Education: Critical Thinking and Data Literacy**	3
		Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3
		English Communication	6
		Chinese Communication **#**	3
	30	**Total Credits Required (no double-counting)**	**30**

Chinese Communication need not necessarily be taken in Year 1.

The Foundations group includes the existing Chinese Communication and English Communication. Two new Foundations courses: (1) Cognitive Foundations of University Education: Critical Thinking and Data Literacy, (2) Behavioral Foundations of University Education: Habits, Mindsets, and Wellness will be introduced to provide core skillsets and mindsets training to students. All UG students will be required to acquire the same knowledge and competency skills in Year 1. They will be required to complete all the English Communication courses and be encouraged to complete the Chinese Communication course in Year 1. However, consistent with the current practice, flexibility will be given regarding the completion of the Chinese Communication course in a different year. The current 0-credit HLTH 1010 Healthy Lifestyle will be integrated into the new Behavioral Foundations course.

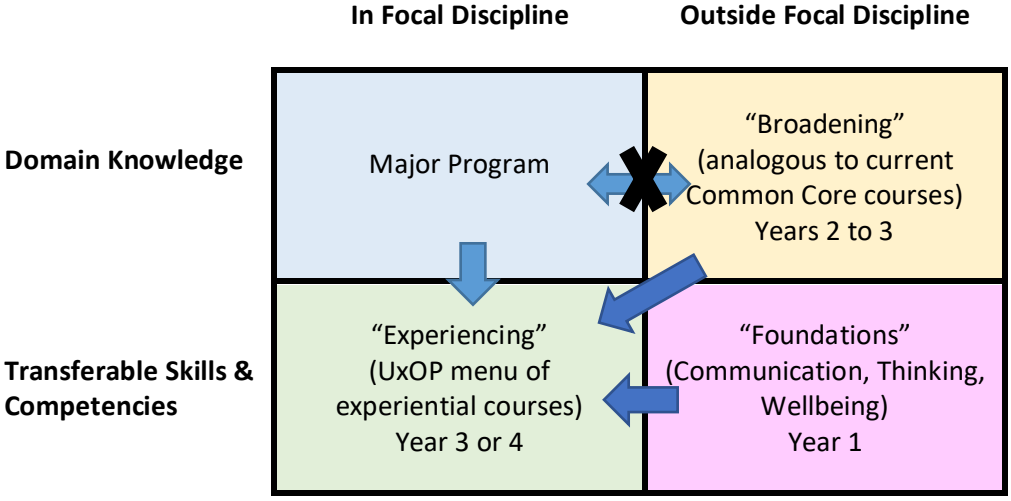
The Broadening group comprises courses in five areas: H, S, T, SA, and A. There will be no overall change to the H and SA areas. The existing S&T area will be separated into two areas: S and T. The existing Arts (A) area will have an updated set of learning outcomes with an increase in credit requirement from 0 to 3. The existing QR requirement will be dropped and replaced by the new Cognitive Foundations course.

Students from different Major programs will have different minimum credit requirement for each area in the Broadening group and will not be able to count any credits from their "home" area(s) so as to achieve the broadening requirement. Students' first Major, and not their additional Major, will serve as the reference point for group-based exclusions, except in cases where the first Major itself is inter-disciplinary (e.g., joint-School or dual degree). The Schools/IPO have proposed program-specific requirements for the Broadening group for each Major, and the related information is incorporated in Attachment 6b.

The Experiencing group will require students to choose any one out of the four structured programs offered as the Undergraduate experiential Opportunities Programs (**UxOP**):
UROP: Undergraduate **R**esearch **O**pportunities **P**rogram;
UTOP: Undergraduate **T**eaching **O**pportunities **P**rogram;
UPOP: Undergraduate **P**ractice **O**pportunities **P**rogram; and
UCOP: **U**ndergraduate Global **C**hallenges and **O**pportunities **P**rogram.

Students must complete the Cognitive and Behavioral Foundations courses in Year 1, as well as courses from at least two Broadening groups (i.e., 6 credits in two Broadening groups), before taking a UxOP course in Year 3 or 4. Each UxOP will have a different focus but they will all be experiential, inter-disciplinary, and involve communications with stakeholders outside the student's home discipline.

ii. *Conceptual Overview of the New Framework*
The proposed framework can be depicted graphically as follows:



iii. *Total Credit Change*
Under the new framework, the total credits of the Common Core structure will be changed to 30 credits. As compared to the current 36 credit program, there will be a reduction of 6 credits as a whole in the Common Core.

iv. *Removing Double-counting Rule for Major Programs*
Currently, students can double-count the Common Core with their Major or school requirements for 6 to 9 credits. However, in view of the concerns mentioned in paragraph (3), this double-counting practice will be discontinued in the new framework. Double-counting will be allowed for Minor programs to incentivize students to broaden their interests.

v. *CORE as the Course Code Prefix of Common Core*
It is proposed that all Common Core courses under this framework will be assigned a common identifier in the course code, for example, "CORE 1001", "CORE 2001", etc. Courses intended purely for the Common Core, e.g., the UxOP courses and some Foundations courses, will have the new CORE prefix, whereas other courses will be multi-coded to indicate their membership in the Common Core.

vi. *Deletion of SSC Requirement*
The current 9-credit SSC requirement will be deleted in the new framework. Nevertheless, Schools could continue to offer SSC courses in the Broadening group of the new framework.

vii. *Scaffolding Structure*
The Common Core framework will be migrated from a distributional model without any pre-requisite requirements to a scaffolding model with pre-requisites built into the three Common Core groups, viz., Foundations, Broadening, and Experiencing. As discussed in paragraph (19 i.), the Foundations courses would serve as pre-requisites to the Broadening and Experiencing courses and would need to be taken in Year 1. There would also be a minimum requirement for the Broadening courses before a student can proceed to the Experiencing courses. The need for a pre-requisite relationship between Broadening and Experiencing courses, and the nature of that relationship, would need to be reviewed and could be different for different Experiencing courses.

There will be scaffolding of transferrable skills in terms of a collection of competencies that the University hopes our graduates will possess. This will be a different route from, yet supplementary to, the academic content of the courses. The competencies embedded in the teaching of this content will be explicitly spelled out such that both instructors and students may clearly see the connections among the courses. For example, the critical thinking skills developed in the Cognitive Foundations course and the cross-domain knowledge from a particular Broadening course should both be relevant for an inter-disciplinary UCOP project undertaken subsequently.

Consistency in the application of competencies across the four-year curriculum is a new concept for the University. To achieve this, a shared institutional vocabulary disseminated using readily accessible resources with agreed-upon competency definitions, rubrics for assessments, and application examples will be needed. Before students and instructors can track competencies and progression, a clearly defined processes to map competencies to courses will be necessary, and to lessons and assessments will be highly desirable. There will be a need for a technical system/software for transparently tracking the aggregate competencies in a meaningful manner so that students can be uniformly assessed.

viii. *English Communication (E-Core) and Chinese Communication (C-Core) Courses*
The credit requirement of E-Core and C-Core courses will remain unchanged in the new Common Core framework. Meanwhile, the Center for Language Education (CLE) is developing a competency framework, intended as a curriculum backbone, to establish coherence among courses offered by the Center. The framework provides a common perspective for stakeholders to understand how the development of key competencies progresses across language courses in students' study pathways. The new E-Core and C-Core will integrate the framework into their instructional design. Once the revamp of E-Core and C-Core courses is ready to be discussed, CLE will submit the course change proposal separately.

IMPLEMENTATION

20. The work plan as recommended by the Steering Committee is to devise the implementation plan and transitional arrangement in Spring 2021. Some new courses under the revised framework will be pilot run from September 2021 to June 2022 **with a target to fully launch the revamped Common Core program for students in the 2022-23 intake**.

21. Under CUCE, a new Working Group will be formed to advise and make recommendations to CUCE on the implementation of the new Common Core. The Working Group will comprise representatives from Schools/IPO, HUMA, SOSC, CLE, CEI, ARO and ITSC (Attachment 12). The Working Group will proceed with its tasks conditional on the final approval of the program change.

22. Meanwhile, several faculty groups across different Schools/IPO have been formed to prepare the new course proposals including Cognitive Foundations of University Education: Critical Thinking and Data Literacy; Behavioral Foundations of University Education: Habits, Mindsets, and Wellness; and UxOP courses. The course proposals will be finalized and submitted to CUCE/CUS for consideration, for piloting as and when appropriate, after the proposed structural framework is approved.

CONCLUSION: MAJOR OBJECTIVES OF THE NEW FRAMEWORK

23. To conclude, the above proposed structural framework of the Common Core program is aligned with the imperatives of the University's Strategic Plan and the UGC Planning Exercise for the 2022/23 to 2025/28 Trienniums. This framework has been developed keeping in mind the Guangzhou campus which will adopt the same framework for its undergraduate programs in the near future. Indeed, many of these new initiatives attempt to build platforms for multi-disciplinarity and teamwork, by encouraging students and faculty to learn and teach together beyond existing boundaries. The new framework tries to introduce greater commonality of student experience, focus on student wellbeing, and a greater focus on the development of "average" students.

Appendix 2a
to CUS 04/21

THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY
Changes to Existing Undergraduate Program

Section 1: General Information

a) The program is a : Major ☐ Minor ☐ Other ☒

b) Title: Final Proposal for the Revised Framework of the Undergraduate Common Core Program

c) Unit recommending the change(s): Steering Committee on Review of the Common Core

d) Program Admin. and Co-ordinating Department(s): Undergraduate Core Education, Center for Education Innovation (CEI)

e) Effective term for the change(s) proposed: Sept 2021-June 2022 (i.e., 2021-22 academic year): Pilot run of new courses; and Sept 2022 (i.e., 2022-23 academic year): Launch new Common Core Program for Fall 2022 student intake

f) Changes proposed applicable to student cohorts of: Sept 2022 (i.e., 2022-23 academic year): Launch new Common Core Program for Fall 2022 student intake

Section 2: Submission and Recommendation

Proposal Submission and Recommendation

	Position / Name:	Signature	Date
Recommending Unit:	Prof. Anirban Mukhopadhyay, Chairperson, Steering Committee on Review of the Common Core		23 Dec 2020

Concurrence

Name of School/Department	Position / Name	Signature	Date
SSCI	Prof. Pak Wo Leung, Associate Dean (UG Studies & Student Affairs)		4 Jan 2021
SENG	Prof. Philip Mok, Associate Dean (UG Studies)		29 Dec 2020
SBM	Prof. Allen Huang, Associate Dean (UG Programs)	Signed	31 Dec 2020
SHSS	Prof Carine Yiu, Associate Dean	Signed	4 Jan 2021
IPO	Prof. Jimmy Fung, Associate Director (UG Studies)		4 Jan 2021

Section 3: Recommended Change

The following changes are recommended:

☐ Change to the program title

New program title: _____

☐ Change in enrollment requirements

Please specify the change:

☐ Addition/deletion* of an Option, track or concentration of a major *(*delete as appropriate)*

Name of Option/track/concentration:

☐ Changes to required course(s)

Course code: ☐ Add ☐ Remove

Course code: ☐ Add ☐ Remove

☐ Changes to elective requirements

(Details: *)*

☒ Other changes

(Details: Please refer to the attached cover paper.)

Section 4: Documentation Required

		Please indicate if documentation is attached
a)	Reasons for proposing the changes • Issues with the current Common Core framework **Attachment 1**; • Benchmarking with local and overseas universities **Attachment 2**; • Review of the General Education Reports of the Overseas Institutions **Attachment 3**.	☒
b)	Feedback from stakeholders, including student feedback • Schedule of Consultation Sessions **Attachment 4**; • Summary of Notes on Consultation sessions **Attachment 5.**	☒
c)	Revised curriculum • The current and the newly proposed framework are presented in **Attachment 6**; • Initial Proposal for Cognitive Foundations of University Education: Critical Thinking and Data Literacy **Attachment 7**; • Initial Proposal for Behavioral Foundations of University Education: Habits, Mindsets, and Wellbeing **Attachment 8**; • Initial Proposal for a new Common Core area in the Broadening Group: Arts **Attachment 9**; • Initial Proposal for a new Common Core area in the Experiencing Group: Undergraduate Experiential Opportunities Programs (UxOP) **Attachment 10**.	☒

d) Revised sample student pathways of the Common Core Program (credit requirement) [X]

- **Attachments 6a and 6b**

e) Impact on educational objectives and intended learning outcomes [X]

- The educational objectives and ILOs of the new Common Core areas/courses are elaborated in the above-mentioned **Attachments 7 -10**.

f) Transitional arrangements [X]

- The existing Common Core demand and transition timeline **Attachment 11**.
- The proposed terms of reference and membership of the Working Group on Review of the Common Core Program under CUCE **Attachment 12** - The CUCE has, at its 57th meeting held on 17 Dec 2020, granted provisional approval of the setup of the Working Group.
- A new course proposal form (i.e. an interim arrangement for introduction of new Common Core courses under the revised framework) **Attachment 13**

Current Common Core Structure

Modified by Senate in Feb 2012, adding SSC as a compulsory requirement

Common Core Area	Credits		Note
	Required	Elective	
Humanities (H)	6*	6	* 3 credits must be from **H SSCs**
Social Analysis (SA)	6*		* 3 credits must be from **SA SSCs**
Science and Technology (S&T)	6*		* 3 credits must be from **S&T SSCs**
Quantitative Reasoning (QR)	3		
Arts	0		
English Communication	6**	Nil	**Must be taken in the 1st year of study
Chinese Communication	3	Nil	
Healthy Lifestyle	Non-credit	Nil	
Total Credits Required	**36**		*[Note: "SSCs" denotes "School-Sponsored Courses"]*

1

Development of the Common Core Structure

2007
Recommended by 334 Working Group

Arts and Humanities .....9 credits
Social Analysis.....9 credits
Science and Technology .....6 credits
Quantitative Reasoning.....3 credits
English Communication * .....6 credits
Chinese Writing * .....3 credits
Physical Education.....**
Service Learning.....**

TOTAL CREDITS.....36+

* *Must be taken in Year 1*
***To be determined*

Students will be strongly encouraged to enroll in project-based freshman seminars and to take part in a Mainland or international experience in fulfillment of the core requirements where appropriate.

December 2008
Approved by the Senate

Arts and Humanities .....9 credits (a)
Social Analysis .....9 credits
Science and Technology .....6 credits
Quantitative Reasoning.....3 credits
English Communication (b) .....6 credits
Chinese Communication.....3 credits
Healthy Lifestyle .....0 credit

TOTAL CREDITS.....36

(a) → *Of these 9 credits, 3 credits should be from the Arts area*
(b) → *Must be taken in Year One*

October 2010
Modified by the Senate

Humanities (H)	**6 credits**
Social Analysis (SA)	**6 credits**
Science and Technology (S&T)	6 credits
Quantitative Reasoning (QR)	3 credits
Core electives (H/SA/S&T/QR/Arts)	**6 credits**
English Communication	6 credits
Chinese Communication	3 credits
Healthy Lifestyle	0 credit
TOTAL CREDITS	36

* *Must be taken in Year One*

- Areas chosen represent the intellectual building blocks and core competencies necessary for a person to contribute meaningfully in our global society

2

Signature Courses → School-Sponsored Courses

- **June 2010**: Idea of Signature Courses originated at a budget and planning retreat by the Provost and the Deans. To offer a small number of high quality signature courses taught by our best professors to form the hallmark of the undergraduate curriculum
- **Beginning Fall 2011**: To pilot 15 signature course proposals for two years
- **After the Dec 2011 Faculty Forum**: Signature Courses renamed by Deans and Provost as School-Sponsored Courses (SSC) to highlight their nature of "interdisciplinarity", "more school effort of coordination" and "hallmark of the school"
- **Feb 2012**: Senate approved to make SSC a compulsory requirement of the 4Y Common Core Program, with provisional approval granted to SSCs until Fall 2015-16

  For Humanities, Social Analysis and Science and Technology common core areas, at least 3 credits must be selected from SSCs listed for the respective area
- **Between 2014 and 2016**: Two task groups established to review SSC implementation
- **Feb 2017**: Senate approved the current set of SSC objectives and selection criteria

3

Recommendations from 1st Advisory Board Review (Jun 2013)

No 1: Consider the following when reviewing the Common Core Program:
- Personal and leadership management skills;
- Service-based thinking mindset; and
- A global perspective.

No 2: Formulate a simple and clear statement to complement and capture the essence of the page-long exposition of the program aims and values.

No 3: Consider to develop courses to highlight the educational philosophy and core values of the Common Core Program:
- Move the SSCs forward to develop courses that highlight the educational philosophy and core values in the evaluation of their design, effectiveness and impact; and
- Include literature and classics courses and courses to develop leadership skills.

No 4: Consider the feasibility of dividing large classes into smaller groups, at which a facilitated discussion of video-taped lectures could be held.

4

Recommendations from 2nd Advisory Board Review (Jun 2015)

No 1: Map the CILOs with *ABC LIVE* to assist the development of these attributes for students.

No 2: Further strengthen the communication of the importance of the Program in university education with its stakeholders including parents to solicit their support and secure their buy-in.

No 3: Collect the views of employers to identify the gap between the undergraduate core education and employers' expectations in its external program review process.

No 4: Solicit support from faculty in articulating the importance of the Program to students' academic development and personal growth so as to arouse students' interest in studying common core courses particularly for those courses which are beyond their major disciplines.

No 5: Develop a transparent mechanism to stipulate the adding and removing of common core courses.

No 6: Identify a few courses, say 30-35 in total, highlighting the education philosophy and core values of the Program to facilitate students' course selection and appreciation of the Program values.

No 7: Encourage instructors to develop good blended learning courses for sharing effective teaching and learning practices, and consider providing incentives to those course developers.

5

Area ILOs:
http://uce.ust.hk/web/about/about_outcomes.html

Common Core Area	Intended Learning Outcomes	
Humanities (H)	H1	Comprehend and narrate human phenomena from the perspectives of humanities disciplines.
	H2	Appreciate and articulate diverse human values, feelings, reason and creativity in various forms of expression.
Social Analysis (SA)	SA1	Analyze key societal and behavioral issues by applying relevant social scientific approaches in different contexts
	SA2	Communicate a concern about key societal issues as responsible citizens
Science and Technology (S&T)	ST1	Comprehend and apply the basic principles of science and methods of scientific inquiry
	ST2	Evaluate the social and philosophical implications of scientific discoveries and technological development
Quantitative Reasoning (QR)	QR1	Use mathematical models or quantitative methods to formulate, analyze and solve problems that they encounter in their daily and professional lives
	QR2	Choose an appropriate method to represent and process a given set of quantitative data and to draw inferences from such data in a systematic and logical way
Arts	A1	Appreciate the theory, history and practice of the arts
	A2	Express themselves through various art forms or media
English Communication (E-Comm)	E1	Use English to achieve communicative purposes appropriate to the academic and social context
Chinese Communication (C-Comm)	C1	Students with Chinese background will be able to use Putonghua and Standard Written Chinese to achieve communicative purposes appropriate to the context, be it academic, social or professional
	C2	Students with non-Chinese background will be able to achieve basic communicative purposes in Putonghua
Healthy Lifestyle (HLTH)	HL1	Recognize the importance of physical, psychological, social, and occupational wellness
	HL2	Develop strategies to manage their lives
	HL3	Acquire new sports skills and maintain a higher level of physical wellness through a variety of activities

Program Goals & Objectives:
http://uce.ust.hk/web/about/about_mission.html

Goals

The Common Core Program strives to provide undergraduate students with a well-rounded quality education that broadens their horizons, inspires and ignites their passion for learning and empowers them for lifelong pursuit of excellence. Specifically, the goals of the Common Core Program are:

(a) **Broadening horizons:** to allow students to gain intellectual breadth and an appreciation of intellectual achievements across and beyond the main academic disciplines of their studies.

(b) **A passion for learning:** to spark students' passion for learning and enhance their higher order intellectual abilities: analysis and evaluation; judgment and critical thinking; defining and solving problems.

(c) **A lifelong pursuit of excellence:** to provide a foundation for students' life-long development through personal growth, preparation for future careers and opportunities to make contributions to the community.

Objectives

The objectives of the Common Core Program are:

(a) To provide courses across and beyond the main academic disciplines: science and technology, social studies, and arts and humanities, such that students can gain intellectual breadth.

(b) To instill knowledge on the human achievements in the arts and culture, the social structures and forms, and the significance of scientific discovery and technical accomplishments.

(c) To spark students' passion for learning by teaching and learning pedagogies that stimulate them to think for themselves, taking their own routes through the materials, to conduct self-directed research and inquiry, and to communicate their discoveries, explanations and narratives to others.

(d) To help develop higher-order thinking skills through activities that require students to form and communicate judgments, to apply theories and concepts to unfamiliar situations, or to analyze cases and solve problems.

(e) To offer courses that support students' development of skills in the areas of language and communication, quantitative reasoning and computer literacy.

(f) To nurture the development of students' attributes including social adaptability, the willingness to accept challenges, and the ability to work independently and in collaboration.

(g) To cultivate the development of responsible, ethical and compassionate citizens who can reflect on personal choices and basic human values, and understand the social and human impact of scientific and technical advances.

(h) To equip students with strategies to manage their lives, contribute to the community, and live up to the expectations that society places on its educated citizens.

6

Mapping AILOs to Common Core Program Goals

Common Core Areas ILOs		Common Core Goals and Objectives							
		Goal 1 Broadening Horizons		Goal 2 Passion for Learning		Goal 3 Lifelong Pursuit of Excellence			
		Obj 1	Obj 2	Obj 3	Obj 4	Obj 5	Obj 6	Obj 7	Obj 8
Humanities	H1	√	√	√	√	√	√	√	√
	H2	√	√	√	√	√	√	√	√
Social Analysis	SA1	√	√				√		
	SA2							√	√
Science and Technology	ST1	√	√						
	ST2	√	√						
Quantitative Reasoning	QR1				√	√			
	QR2				√	√			
Arts	A1	√	√						
	A2	√	√						
English Communication	E1					√			
Chinese Communication	C1					√			
	C2					√			
Healthy Lifestyle	HL1						√		√
	HL2				√				√
	HL3							√	√

- Generally achieving the broadening goal
- Relatively weak in sparking students' passion for learning, and developing attributes
- 2nd and 3rd goals are mainly mapped to QR, E-Comm, C-Comm, and HLTH AILOs

7

Issue 1: Does the Common Core serve its objective of broadening students with intellectual breadth beyond a single discipline?

Credits used to fulfill the core elective requirement

- Students tend to take courses closer to their major field of study, suggesting that this core elective requirement was not too instrumental in helping students broaden out

Courses serving both common core and school/major requirements

- ~50% CC courses can be counted toward major/school requirements, suggesting that the Common Core might not well serve its objective of providing a broad education to students

Double-counting arrangement acts against the broadening objective and influenced the demand for common core courses (higher demand for SA, S&T courses than for H)

[Observations from 4Y graduate statistics for the first two cohorts (2015-16 & 2016-17]

8

Data from the 2016-17 Graduate Statistics as reference:

- 63% of the course enrollment were used to fulfill CC requirements solely
- 15% were used to fulfill both CC and non-CC requirements (that is, double-counted)
- 22% were used to fulfill non-CC requirements only
  - 50% of which were school/major requirements
  - about 41% of these course enrollment were in the SA area, 24% in S&T, and 19% in QR
- 11 out of the 12 QR courses could be double-counted, ~80% of the QR enrollment were double-counted
- Actual CC credits taken only contributed to 14% or 17 credits (SSCI) to 18% or 21 credits (SHSS) of their graduation requirement if English and Chinese Communication credits and double-counted credits were excluded from the calculation
- The percentage dropped further to 5% or 6 credits (SHSS) to 11% or 13 credits (SSCI) if discipline-dependent credits (that is, credits earned from courses offered by the students' own school) were excluded

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Issue 2: Should additional rules be introduced to restrict students' choice of courses for meeting the core elective requirement?

→ Preliminary CUCE discussion, no conclusion yet

- Disallow students using courses offered by their School to fulfill the core elective requirement
- Restrict students from using courses related to their major or from specific area to fulfill the core elective requirement
- There was also a view that students should have the freedom to explore and select core electives of their own choice

Common Core Area	Credits		Note
	Required	Elective	
Humanities (H)	6*	6	* 3 credits must be from **H SSCs**
Social Analysis (SA)	6*		* 3 credits must be from **SA SSCs**
Science and Technology (S&T)	6*		* 3 credits must be from **S&T SSCs**
Quantitative Reasoning (QR)	3		
Arts	0		
English Communication	6**	Nil	**Must be taken in the 1st year of study
Chinese Communication	3	Nil	
Healthy Lifestyle	Non-credit	Nil	
Total Credits Required	**36**		*[Note: "SSCs" denotes "School-Sponsored Courses"]*

10

Issue 3: Should competency requirements be separated from the common core requirements?

→ WGR4Y* Recommendation:

Move English language, Chinese language, quantitative reasoning and Healthy Lifestyle outside the common core (March 2017)

> ***"The University common core:*** There was broad agreement that consideration should be given to **separately grouping the common core competency components**, in particular English language, but possibly Chinese language, quantitative reasoning and Healthy Lifestyle, to better focus the program and streamline its management."

* WGR4Y -- Working Group for Mid-term Review of the 4-year Degree

→Preliminary CUCE discussion

- May consider 2 groups of requirements:
  a) aim at achieving the broadening purpose; double-counting not allowed
  b) focus on competency building (e.g. QR, E-Comm, C-Comm and HLTH courses); double-counting allowed

11

Issue 4: How to deal with double-counting?

→Preliminary CUCE discussion

- Need to consider the impact of removing double-counting on major programs
- May remove double-counting by removing the heavily double-counted QR area, and the language proficiency related E-Comm and C-Comm areas out of the common core. This may impact on the integrity of the common core program and its educational philosophy.
- For major programs that require a lot of double-counted credits to help bring the total graduation requirements within 120-126 credits, it was suggested to relax the 126-credit maximum.
- Adopt a top-down approach to develop courses for the common core. Establish a committee to identify themes or attributes that the common core would expect the students to learn and develop, then identify faculty members to develop courses along the line.

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Issue 5: Should "no-prerequisite" be a criteria for common core courses?

→ Recommended by the WGR4Y to relax the "no-prerequisite" rule (March 2017)

"It was also agreed that the **principle that only courses without pre-requisites** can be included in the common core has limited options for students and departments and might **be reconsidered**."

→ CUCE decision: to retain the "no-prerequisite" rule

Considerations: Including courses with prerequisite in the Common Core would allow students to pursue study in a subject area after finishing an introductory course, but at the same time exacerbating the tendency of students taking courses related to their major, thus working against the broadening objective

13

Others

Issue 6: Diverse student background in a course is often cited by instructors as a challenge in tuning the level of the course materials to suit students' prior preparation and background, and engaging students in the class

Issue 7: Students' English language ability: science and engineering students often have difficulty with courses that require a lot of readings and writing work, e.g. humanities and social science courses

14

Observations from Feedback of the 2014-15 Cohort

[Data from FYES, SYES, TYES and SESQ conducted for the 2014-15 cohort between 2012-13 and 2017-18]

Level of interest in common core courses

- **"Moderate" to "High"** level of interest **in S&T, QR and SA** courses, but just a **"Moderate"** level of interest in **H and Arts** courses
- Students' interest was generally **aligned with their major study**

Perceived values of common core courses

- **Significant increase from "Agree"** (in the first 3 years) **to "Strongly Agree" in their final year**
- Students were **more able to appreciate the values of the common core when they were about to complete their UG studies**.
- **Two exceptions** for these two aspects:
  - "***helped me gain intellectual breadth across academic disciplines***" – *not much improvement in ratings in the four years*
  - *"**helped me appreciate human achievements**" – a slight decline in in rating in the final year*

15

Attachment 2

Benchmark with local and overseas universities

Summary of CC & GE Programs

15 April 2019

General Education Models

Open Model	Distribution Model	Core Model	Core/Distribution model
No GE requirement	Take courses across the curriculum to fulfill an array of breadth requirements	A specific set of purpose-developed GE classes that do not fulfill other functions in an UG education plan	
Brown	Cornell Dartmouth Harvard Princeton University of Pennsylvania Yale Duke Stanford Northwestern UCLA /UC Berkeley U of Michigan/Washington /Wisconsin Middlebury/Oberlin /Pomona/Swarthmore /Williams	Columbia Yale-NUS MIT (science core) Cal Tech (science core) U of Chicago	Bryn Mawr Carnegie Mellon UT Austin

Princeton Report: Appendix C

General Education Requirements

- Make up about 1/3 of the BA curriculum
- Three basic areas of knowledge:
  - Humanities;
  - Social sciences; and
  - Natural sciences
- Three basic skill sets:
  - Writing;
  - Foreign language; and
  - Quantitative reasoning

Princeton Report: Appendix C

Local Institutions

Credit Requirements

Institution	GE credits A	Total credits in four-year programme B	Percentage A/B	
Essential skills included in GE				
CityU	30	120	25%	Gateway Education
HKBU	~~38~~ 18 (+13)	128	~~29.7%~~ 14%	General Education Programme
PolyU	30	120	25%	General University Requirements
HKUST	36	120	30%	Common Core Program
Essential skills NOT included in GE				
LU	~~33~~ 27-33	120	~~27.5%~~ 22.5-27.5%	Core Curriculum
CUHK	21	123	17.1%	University General Education
HKIEd	~~21~~ 22	120	~~17.5%~~ 18.3	General Education
HKU	36	240	15%	Common Core Curriculum

GE Requirements

Institution	GE Credits	Requirement		Note
CityU	30	• U req 9 credits (Eng & Chinese Civilisation) • Dist req 12 credits (H, SA, S&T) • School-spec req 9 credits		
PolyU	30	• Cluster area 12 credits • Lang & comm 9 credits • Freshman seminar 3 credits	• Leadership & intra-personal devel 3 credits • Service learning 3 credits • HLTH 0 credit	
HKUST	36	• Core req 30 credits (inc 9 credits SSC) • Core elect 6 credits	• Double-count 6-9 credits	
HKBU	18	• Foundational 9 units • Inter thematic 6 units • Capstone 3 units	• Uni Core 13 units (Eng 6, Chi 3, Art of Persuasion 2, HLTH 2)	Revised 2018
LU	27-33	• Common core 12 credits • 5 clusters 15-21 credits (optional 6 credits)		Revised 2018
CUHK	21	• GE foundation 6 units (In dialogue w Humanity and Nature) • 4 areas 9 units • College GE req 6 units		
HKIEd	22	• GE foundation 4 credits • Experiential learning 6 credits	• GE breadth 9 credits • GE consolidation 3 credits U ePortfolio	
HKU	36	• 6 6-credit courses, 1 from each of 4 AoLs but not more than 2 from any AoL • CC Clusters: 4 courses from Sustaining cities, cultures, and the earth / The universe and the question of meaning (since 2017/18) • Transdisciplinary minor: 4 cluster courses + 2 more (since 2017/18)		

Comparison

Institution	Culture and values	Lifestyle	Integration	Essential skills (language, etc)
City U Gateway Education	• Chinese civilization – history and philosophy			• University English and discipline-specific English
HKBU General Education	• History and civilization • Values and meaning of the life	Physical education		• Public speaking • Information management technology • Numeracy • University English • University Chinese
LU Core Curriculum	• The making of Hong Kong • Understanding morality • World history and civilisations			• Logic and critical thinking • Not included in Core Curriculum: English for Communication; Practical Chinese
CUHK General Education			• In dialogue with humanity • In dialogue with nature	• A common University Core develops generic competencies in and through Chinese, English, GE, IT and physical education

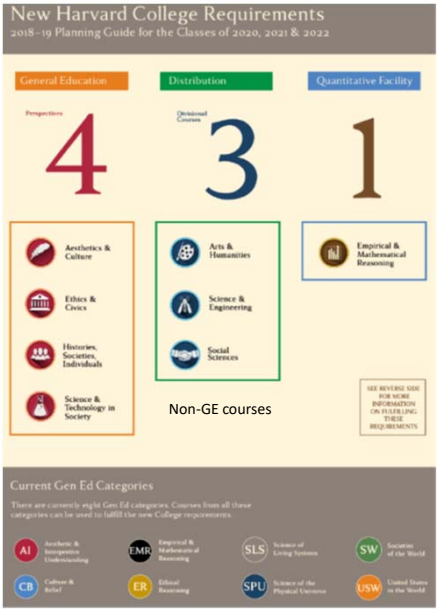
Institution	Culture and values	Lifestyle	Integration	Essential skills (language, etc)
HKIEd General Education			• Foundation course • Consolidation course	• Students take two mandatory English Language Proficiency courses in Year 1 as part of the English language enhancement programme. They also have to take mandatory non-credit-bearing courses in Chinese and Putonghua
PolyU General University Requirements (GUR)		Healthy lifestyle (non-credit)	• Freshman seminar • Service learning	• Leadership & intra-personal development • Language and communication (English and Chinese)
HKUST Common Core	Culture and value	Healthy lifestyle (non-credit)		• English communication • Chinese communication
HKU Common Core Curriculum	Appreciation of own culture and other cultures			• English • Chinese

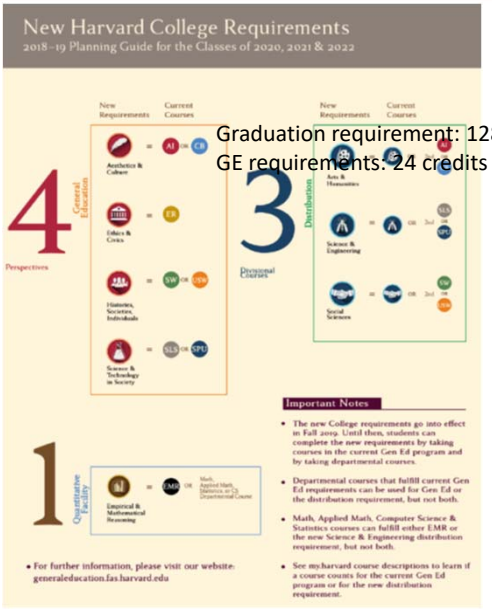
Comparison

Institution	Arts and Humanities	Social Sciences	Natural Sciences	Other
CityU	Arts and Humanities	Study of Societies, Social and Business Organizations	Science and Technology	
HKBU	Arts Communication/ Visual Arts	Social Sciences	Science/ Chinese Medicine	Business
LU	Humanities and the Arts	Management and Society Values, Cultures and Societies	Science, Technology and Society	Creativity and Innovation
CUHK	Self and Humanity	Society and Culture	Nature, Technology and the Environment	Chinese Cultural Heritage
HKIEd	Persons, Interpretations, Perspectives	Community, Society, Culture	Nature, Science, Technology	
PolyU	Human Nature, Relations and Development	Community, Organization and Globalization History, Culture and World Views	Science, Technology and Environment	
HKUST	Humanities	Social Analysis	Science and Technology Quantitative Reasoning	
HKU	Humanities	China: Culture, State and Society	Scientific and Technological Literacy	Global Issues

Oversea Institutions

Harvard





Graduation requirement: 128 credits
GE requirements: 24 credits

Princeton

Bachelor of Arts (A.B.)	Bachelor of Science in Engineering (B.S.E.)
Writing Requirement— 1 writing seminar in your first year Foreign Language Requirement— demonstrated proficiency or 1 to 4 terms of coursework depending on the language you choose and the level at which you start Distribution Requirements: Epistemology and Cognition (EC) — 1 course Ethical Thought and Moral Values (EM) — 1 course Historical Analysis (HA) — 1 course Literature and the Arts (LA) — 2 courses Social Analysis (SA) — 2 courses Quantitative Reasoning (QR) — 1 course Science and Technology (STL/STN)— 2 courses; at least 1 course must be a science and technology course with laboratory (STL)	School of Engineering and Applied Science Requirements 2 terms of mathematics, 2 terms of physics, and 1 term each of chemistry and computer science Writing Requirement— 1 writing seminar in your first year A minimum of 7 courses in the humanities and social sciences, which must include 1 course in 4 of the 6 areas listed below: Foreign Language (at the 107/108 level or above) Epistemology and Cognition (EC) Ethical Thought and Moral Values (EM) Historical Analysis (HA) Literature and the Arts (LA) Social Analysis (SA)

MIT

General Institute Requirements (GIRs)	
Science core	6 courses in math, phy, bio, and chem
HASS	Min 8 subjects in huma, arts, social sci
Communication	4 courses inc at least 2 relevant to major (writing & speaking)
Laboratory	
REST	2 subjects of restricted electives in S&T
Physical education	Min 4 courses and passing a 100-yard swim test

Counting credits at MIT is complicated and different for every student and major. However, as a rule of thumb, you can generalize that about **half of your time at MIT will be spent taking the GIRs**, and about half of your time will be spent specializing in your course(s) of study.

Caltech

Course	*Units*
1. Freshman Mathematics (Ma 1 abc)	27
2. Freshman Physics (Ph 1 abc)	27
3. Freshman Chemistry (Ch 1 ab)	15
4. Freshman Biology (Bi 1 or Bi 1 x)[1]	9
5. Menu Class (currently Ay 1, EE 1, ESE 1, Ge 1, or IST 4)	9
6. Freshman Chemistry Laboratory (Ch 3 a)[2]	6
7. Additional Introductory Laboratory	6
8. Scientific Writing[3]	3
9. Humanities Courses (as defined below)	36
10. Social Sciences Courses (as defined below)	36
11. Additional Humanities and Social Sciences Courses	36
12. Physical Education	9

Graduation requirement: 486 units
Core requirements: 219 units (45%)
Pages 230-231

Stanford

General Education Requirements	
Thinking Matters	1 course (out of 8 courses) OR 1 residence-based year-long program Immersion in the Arts: Living in Culture Structured Liberal Education
Ways of Thinking/Ways of Doing	11 Ways skill capacity-based courses
Writing and Rhetoric (WR)	WR 1: Writing and research-based argument WR 2: Writing, research and oral presentation of research WR 3: Writing in the Major
Language	1 year foreign language study

Graduation requirement: 180 units
GE requirements: ~ 51 units (28%)

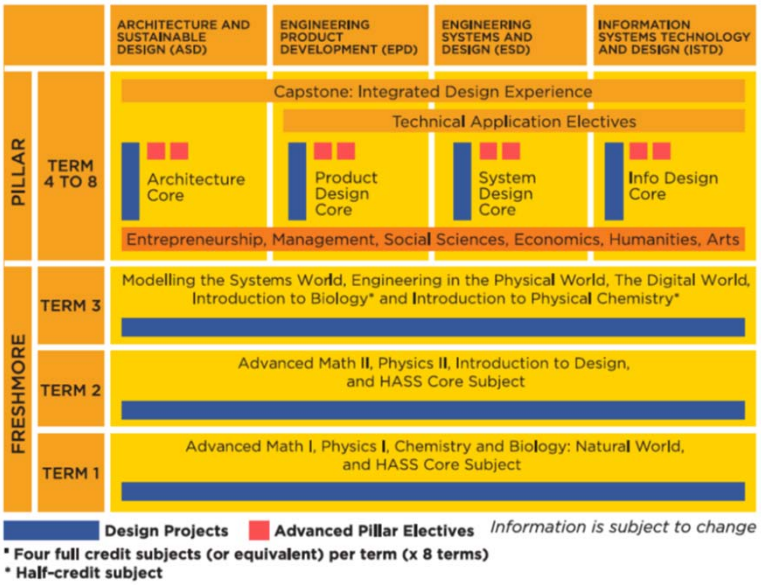
Olin College

Area	Minimum Credits Required
Engineering	46
Math and Science	30; of which at least 10 must be Math
AHS and Entrepreneurship	28; of which at least 12 must be AHS

AHS: Arts, Humanities and Social Science

Graduation requirement: 120 credits

Singapore U of Technology & Design (2009)

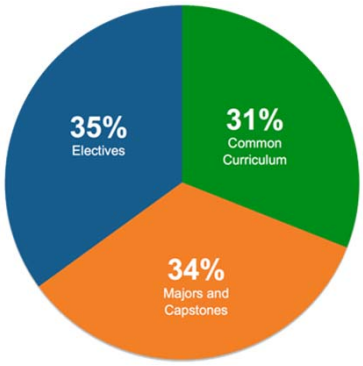


- Modelling the Systems World
- Engineering in the Physical World
- The Digital World
- Introduction to Physical Chemistry*
- Introduction to Biology*

- Advanced Mathematics II
- Physics II
- Introduction to Design
- Theorizing Society, the Self, and Culture

- Advanced Mathematics I
- Physics I
- Chemistry and Biology: Natural World
- World Texts and Interpretations

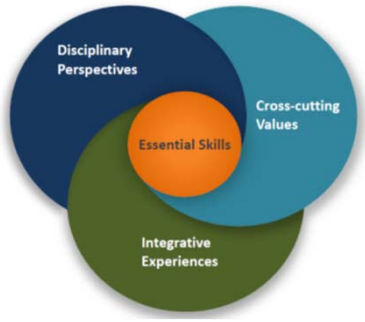
Yale-NUS College (2011)



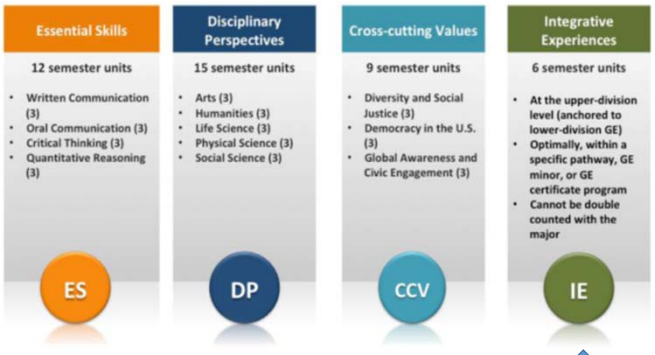
Year	Semester One	Semester Two
1	Literature & Humanities 1 Philosophy & Political Thought 1 Quantitative Reasoning Comparative Social Inquiry	Literature & Humanities 2 Philosophy & Political Thought 2 Scientific Inquiry 1 Elective
2	Modern Social Thought Scientific Inquiry 2 Two Electives	Four Electives
3	Historical Immersion (any time in Yr 3/4) Two Majors Elective	Three Majors Elective
4	Capstone Project Two Majors Elective	Capstone Project Two Majors Elective

Common Curriculum
The "half-life" of knowledge in many fields is changing so quickly that mastery of a single body of knowledge is inadequate for those who will be tomorrow's leaders. The solution: become highly skilled at crossing boundaries. Quickly adapt to new environments. Form meaningful collaborations and partnerships. Be prepared to master new challenges throughout your life. …

California State University



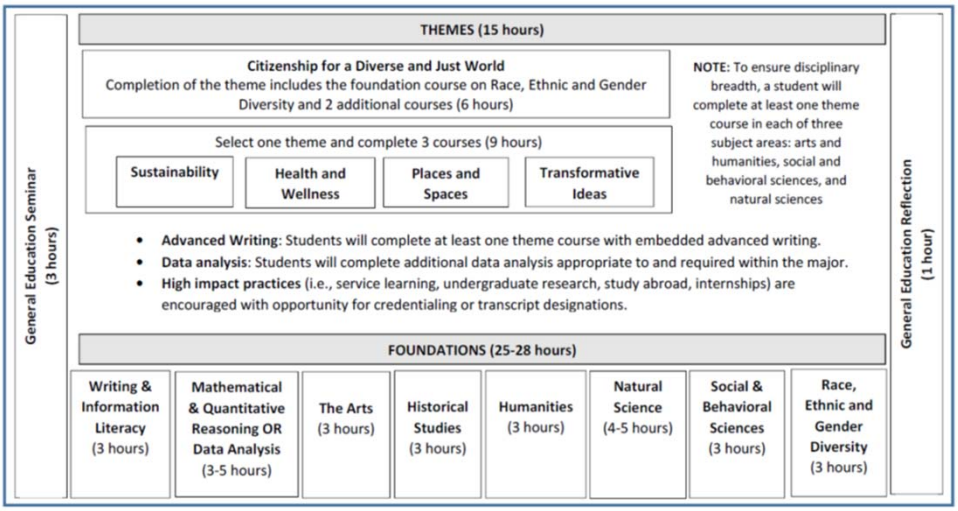
Total 42 units



Current:
Graduation requirement: 120 units
GE requirement: 48 units (inc 9 in upper division GE)
Streaming for different majors

Similar to HKU's Transdisciplinary minor

Ohio State University



Graduation requirement: 120 credits
GE requirement: 47 credits
Allow 9 (6) credits of overlap betw GE and major (minor)

CC/GE Education Program Review

Institution	Date
California State University	2019
University of Arizona	August 2018
Ohio State University	February 2018
Princeton University	October 2016
Harvard University	January 2016

Attachment 3

Extracts of the Minutes of the Steering Committee on Review of the Common Core Meeting

On 15 May 2019

2. Review of the General Education Reports of the Overseas Institutions

California State University

2.1 It was noted that the GE model in the California State University is a hybrid model, including distributional model and core model characteristics in it. The model includes certain elements: essential skills, disciplinary perspectives, cross-cutting values and integrative experiences.

2.2 It was commented that one of their objectives is to develop students to become engaged citizens, which is not included in our common core program. Another difference is about the area of cross-cutting value that is very specific in their program reform proposal with the emphasis on diversity, social justices, democracy in the US, global awareness and civic engagement.

2.3 It was noticed that the integrative experiences is challenging component setting out beyond the major, in the form as a six-credit capstone project, while the essential skills are to be taken in year one as foundation courses. Double-counting is not allowed and the total credits amount to 42 semesters units which is considered as very idealistic. The GE program is treated as a major program, with lower and upper level courses. Members were then further introduced to details of the courses in each area.

2.4 It was commented that the essential skills courses can be duplicated in the major courses, while disciplinary perspectives ones are appropriate as breath studies. It was further commented that the cross-cutting value courses are very clearly set out to teach the core value to students. The integrative experiences courses will be difficult to be implemented since it intends to make students to take them seriously.

2.5 In terms of the funding model, it was argued that the current one tends to encourage departments to maximize student numbers so the university will need to support the beginning of the courses like in integrative experiences area.

2.6 In sum, it was noted that the model in this proposal includes breath, complementary studies and a hybrid one with distributional model characteristics applied to year 2 studies and core model characteristics in the cross-cutting value in year 3 studies.

University of Arizona

2.7 It was explained that the existing GE program in the University of Arizona includes Foundations, Tier One, Tier Two and Diversity Emphasis. Tier One courses introduce students to fundament and Concepts pertinent to three study areas, while Tier Two offers more in-depth examination of particular disciplines. After reviewing the GE program, a wildcat core was proposed to the program.

2.8 Under the wildcat core, students can take gateway courses, for which students can choose multiple gateway groups; they can also take exploration courses for breath and depth in different categories. An example of gateway course GW1 was shown. The list of courses were all GE courses.

2.9 It was further explained that students can do only the gateway path, or only exploration path, or both paths together. There are additional requirements in diversity courses. The total credits to be taken will be the same from 11 courses amounting to 33 credits. It will take 5 years for implementing the new model.

2.10 As a whole, it was noted that the gateway courses are new, while the exploration courses are distributional and about depth, just like an option.

Ohio State University

2.11 It was noted that there were 3 clear goals set out for the GE program: 1. Successful students will demonstrate certain qualities, abilities and characteristics that prepare them to be engaged citizens and leaders for life; 2. Successful students will engage with and apply a range of important modes of human thought and inquiry; 3. Successful students will be educated global citizens who can examine significant aspects of the human condition in local, state, national and global settings today, and in the foreseeable future.

2.12 Members were introduced to the GE program structure: general education seminar (3 hours), themes (15 hours, Citizenship for a Diverse and Just World and to select one theme and complete 3 courses (9 hours)), foundations (25-28 hours) and general education reflection (1 hour). There will be no double-counting in the theme courses. For foundations courses, there will be co-teaching among departments.

2.13 In the report, it was noted that there were a lot of attention on the faculty and students' inputs and several rounds of consultation on goals and implementation issues.

2.14 Members compared the great difference between the integrated experiences (6 semester units) of the California State University GE model and the reflection (1 hour) of the Ohio State University.

2.15 It was commented that in the review for our common core program, there may be a lot changes but at the same time, some existing courses may be kept. It was suggested that for the set of new or existing courses, their ILOs can be unified so as to enable the delivery of what the real value of the common core courses. Members were shown to the list of expected learning outcomes of the foundations courses on the report which were very specific and clear.

2.16 Another suggestion was to modify our existing courses so that the program can really deliver the new theme or reinforced value we want to deliver after this common core review.

2.17 In response to the suggestion, it was explained that our common core program does not include themes but is a distributional model approach so there is a difference in structures between ours and the models shown in the other universities above.

Princeton University

2.18 It was noted that the GE program of Princeton University is a distributional model like our common core model. In the review, the definition of GE was broadened to include also a set of "Modes of learning" experiences which extend students' learning beyond the classroom setting. However, it was considered to be difficult to implement. There were also additional guiding principles. The committee noted that there might not be much census among the Task force in reaching the proposed terms.

2.19 Specific recommendations on and structure of the GE requirements were summarised and walked through among members. In sum, there were 12 course requirements in the GE program.

2.20 In the Princeton GE review, there was a proposal for introducing a 3-week January term so that students can take credit bearing courses in this period. Members noted that we have already had this arrangement in place.

2.21 It was told that the Princeton GE program allowed a lot of double-counting between GE and major because students can tag a number of courses between GE and majors as there are plenty overlapping in course requirements.

Harvard University

2.22 Members noted the background of the GE reform in the Harvard University and the current program is oriented around a global aim that is manifest in four philosophical principles: 1. To engage with large questions about the nature of civic virtue; 2. To explore questions of identity that are born of, supported by and constitutive of societies and traditions; 3. To investigate the ethical dimensions of what people say and do; and 4. To examine the nature of individual, social, scientific and technological change, including how one responds constructively and critically to it.

2.23 In 2009 students and faculty started to complain so the University reformed the GE program. The goal of the structure was twofold: a student was expected to know "a little of everything and something well."

2.24 The proposed components of the GE reform included: 1. The requirement to take four diverse courses tagging aesthetics, culture, interpretation; histories, societies, individuals; sciences and technology in Society; and ethics and civics; 2. Three distributional courses from departments across the divisions of FAS and SEAS; and 3. College or departmental requirements in writing, foreign language and quantitative facility. It was further noted that there were no double counting in the tagging system.

2.25 In the report, it was mentioned that the University would provide further resource support in offering GE courses but departments would compete for it. Each section of the class would be kept at 12 to 14 students. The University would have supplementary pay to faculty who teach GE courses.

Nanyang Technological University

2.26 It was noted that the report was primarily about reform in primary and secondary educations. Members were introduced to its detailed reforms and philosophies behind.

2.27 The UBESCO report (1996) was also introduced. Some learning skills were mentioned: learn to learn; learn to do; learn to be; and learn to live together. Then OECD (2005) report on the definition and selection of key competencies were discussed including "use tools interactively", "act autonomously" and "interact in heterogeneous groups".

2.28 Furthermore, members were introduced to the Cambridge approach to 21st Century skills and approaches to developing 21st century skills.

3. Conclusion

3.1 In sum, it was commented that the Princeton and Harvard GE models are different from the HKUST one. In terms of structure, they include more theme based courses and their GE is taken as its own program which is built upon foundations courses with theme based requirements. There is no relationship with the major. Double counting is allowed in some requirements.

3.2 Most of the GE programs as reviewed above involve heavy workload, for examples 42 credits in the California State model with foundations, distributional themes, integrative experiences and cross-cutting values.

3.3 Furthermore, there is not much talking about “citizens” in some universities. The GE programs in general do not involve so much in result but only process; the Princeton model is more about pedagogy.

3.4 It was further viewed that a number of the GE models cover distinguished areas in humanities but in the HKUST model, there is not so much differentiation into areas but just big category like Arts. It was much appreciated if the areas can be more fine-tuned and developed into distinguished categories in humanities, history, social sciences and so will be the outcomes as well.

3.5 Members also welcomed some GE models discussed above including a big foundation course and considered this big foundation idea interesting.

3.6 It was also noted that the review reports do not cover any mapping of GE objectives and graduate attributes explicitly.

Attachment 4

Schedule of Consultation Sessions

First Round Consultation (mid-September 2019 to mid-October 2019)

Parties involved:	Consultation date(s)/Time/Venue:
SSCI UG Coordinators and Faculty	17 September 2019, 2:30-3:30pm, Rm 6521 30 September 2019, 10:00-11:30am, Rm 2405
SENG UG Coordinators and Faculty	27 September 2019, 4:15-4:35pm, LTG 14 October 2019, 4:00-6:00pm, Rm 6538
SBM UG Coordinators and Faculty	25 September 2019, 11:00-12:00pm, LSK1036 2 October 2019, 10:00-11:20pm, LSK1036
SHSS UG Coordinators and Faculty	8 October 2019, 3:00-5:00pm, Rm 3365
IPO UG Coordinators and Faculty	9 October 2019, 10:30am-12:00pm, Rm 4379
Deans and IPO Director	8 October 2019, 12:20-1:20pm, LSK7012
Committee on Undergraduate Core Education (CUCE) and Course Review Panels (CRPs)	17 October 2019, 3:00-4:30pm, Rm3574

Summer 2020

CUS Special Meeting for discussion of initial proposals for GZ Campus	25 August 2020

Second Round Consultation (October 2020 to December 2020)

Parties involved:	Consultation date:
Committee on Undergraduate Core Education (CUCE)	12 October 2020
Deans meeting	16 October 2020
Open faculty consultation	22 October 2020
Associate Deans meeting	22 October 2020
Associate Deans, SHSS UG coordinators, and HUMA DH	9 November 2020
CUS	11 November, 2020
SSCI School Administrative Committee	18 November, 2020
HUMA DH and faculty	26 November, 2020
SENG Circle	3 December, 2020
Multiple other discussions with interested members of the University community	

Attachment 5

Summary of Notes on Consultation Sessions

First Round Consultation (mid-September 2019 to mid-October 2019)

Summary of comments collected in the first round consultation sessions for the newly proposed framework of the Common Core Program

Parties involved:	Consultation date(s)/Time/Venue:
SSCI UG Coordinators and Faculty	17 September 2019, 2:30-3:30pm, Rm 6521 30 September 2019, 10:00-11:30am, Rm 2405
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Committee on Undergraduate Core Education (CUCE) and Course Review Panels (CRPs)	17 October 2019, 3:00-4:30pm, Rm3574

Comments/Inputs from participants and some responses to the comments:

1. Creative Arts
   As Creative Arts will become a core course, students have to take it mandatorily. It was concerned that this will create issues, since not every student has talents for the Creative Arts discipline. (SSCI UG Coordinators)

   It was asked if the Creative Arts should be set out as a 3 credit academic course. In the Humanities course list, there are already courses for the Creative Arts area, including music courses, creative writing courses, etc. However, there were concerns about how to count in courses under the Creative Arts area. (SSCI Faculty)

2. Physical and Mental Wellness
   In view of the nature of the course, it was questioned what proportion should be divided between the physical wellness part and the mental wellness part for the course. Also, the course bears 3 credits. There were concerns about resources in developing the physical wellness course. Furthermore, it was suggested that assessment for the course could be based on how well the student has reflected on it. But it was viewed that assessment by reflection will have difficulty in grading. (SSCI UG Coordinators)

   It was concerned who are going to teach the Physical and Mental Wellness course. In view of the course structure, it was commented that details of the course should be worked out first but not just the framework. (SSCI Faculty)

There were concerns about whether the Physical and Mental Wellness course should be set out as a 3 credit academic course. In response, it was explained that it is still subject to discussion on whether this course should be included in the structure. (SSCI Faculty)

It was questioned why 3 credits were allocated to the Physical and Mental Wellness course. (SBM Faculty)

It was asked why the Physical and Mental Wellness course is set out as a 3-credit academic course. Some faculty suggested that the course should be assigned zero credit taking into account of the course nature. The others viewed that the course should not be assigned 3 credits without having set out the course contents. It was suggested that a sub-group should be set up to discuss further about the course development and arrangement. (IPO UG Coordinators and Faculty)

It was regarded as an important course in the program as it is good for the whole-person development. Also out of 120 program credits, this course just carries 3-credit. It was suggested that this course can be developed into multiple version as well. (Deans/IPO Director)

3. Computational Thinking/Data Analytics Mindsets course

It was commented that the Computational Thinking/Data Analytics Mindsets course teaches specific knowledge. This is considered as even narrower in scope of knowledge than the existing Quantitative Reasoning. (SSCI Faculty)

There were worries about whether the Global China Studies (GCS) students who normally do not have mathematics background are able to take the Computational Thinking course. In response, it was explained that the course is about computational thinking, algorithmic thinking and the mindsets on how to use data. It does not need much mathematics background. Some statistics would be taught in the course. It might even not need a basic programming requirement. To facilitate students in taking the course, a version might be created for the GCS students, or different strands might be set out. (SHSS UG Coordinators and Faculty)

The Computational Thinking/Data Analytics Mindsets course was regarded as being transformed from the existing Quantitative Reasoning courses. Students normally take the Calculus course which would already fulfill this area requirement. It was commented that students will be taking very a different course in the new framework. Furthermore, there would be multiple version of the course to be offered. (Deans/IPO Director)

This course requirement will be mandatory in the new framework. That means, all students are required to take it. However, the Global China Studies (GCS) students is not required to fulfill the computer course requirement at present. So there were concerns as under the new framework the GSC students are also required to take the Computational Thinking course. (Deans/IPO Director)

The Computational Thinking course is not a programming course. It was commented that to separate the Computer course and programming course is not ideal as the two components should come together in one course. In response, it was told that many majors require students to take a programming course. It was considered that a pre-requisite might be set for the Computational Thinking course. (Deans/IPO Director)

It was argued that every student should have basic programing skills. However, the course is about computational thinking, algorithmic thinking and data analysis. Those are foundation skill sets which are necessary for students in studies. (Deans/IPO Director)

There would be multiple version of the course. Multiple version might imply courses developed for respective Schools to fit their students' needs or a list of different course versions. It was concerned about that more faculty would be needed to teach it so there would be resource implication. (Deans/IPO Director)

In view of the nature of the course, it was questioned whether smaller classes may be needed in delivering the course. There might again be greater resource implication. In response, it was noted that resources would not vary given the class size remained the same. (Deans/IPO Director)

4. Foundation courses

   It was asked what multiple versions of courses was about for Creative Arts and Computational Thinking/Analytics Mindsets. In response, it was explained that different courses would be taught for multiple versions. (SENG UG Coordinators)

   It was asked whether there will be any changes in the outcomes of the English Communication and Chinese Communication courses. For this, it will rely on the Centre of Language Education to design or change the outcomes, as necessary. (SHSS UG Coordinators and Faculty)

5. Broadening courses

   The S & T carries 6 credits but in the new framework, it takes only 3 credits. This reduction in credits was concerned, since student will only need to take one S & T course under the new framework. As explained, due to the double-counting rule, students under the existing Common Core structure may in fact also only need to take one S & T course for the Common Core. (SSCI UG Coordinators)

   It was asked why there is not any Business courses in the framework. It was noted that Business courses will be incorporated in the Social Analysis area. In the Broadening category, it was suggested that the Humanities, Social Analysis and Science and Technology (S&T) areas could be modified, especially in S&T, which might be further sub-divided into different areas. (SSCI Faculty)

   It was concerned that the credit points have been redistributed among categories in the new framework. The cut in credit points, especially for S&T, was considered as having great impact to the Science and Engineering students. Some courses offered under the S&T area are good courses covering wide knowledge in the field which can also help to broaden students' knowledge. So students taking courses from the same school is also broadening in this sense. (SSCI Faculty)

   There were suggestions that alternative ways such as school-based or major-based could be set out for separating course areas. These ways could be helpful for the broadening purpose. (SENG UG Coordinators)

   In the new framework, the elective group has been deleted. It was commented that the taking away of elective choice would reduce students' flexibility in choosing the courses. (SENG UG Coordinators)

   The idea of introducing the broadening category was supported. (SBM Faculty)

   The 9 credits set out for the Broadening category was regarded as inadequate. This number of credits might not be enough to deliver what it is intended to deliver through the Broadening category. It was thus doubtful about why credits of the broadening category were redistributed to other categories. (SBM Faculty)

In the areas of the broadening category in the new framework, the credit requirement is reduced, compared to that of the existing structure. There were concerns in the reduction in credits required. (SBM Faculty)

It was further supported that school based boundary has been set out to restrict students from taking courses from particular areas as school based boundary would be helpful for the majority students in choosing courses for broadening purpose. (SBM Faculty)

On the other hand, there were counterviews that there would be diversity in major program within respective Schools. There was suggestion to set the boundary by majors instead. (SBM Faculty)

Also, it was further suggested that the areas Humanities, Social Analysis and Science and Technology can be modified or set as School-based instead of area-based. The latter suggestion may be more helpful for the broadening purpose. (SBM Faculty)

It was questioned if the Humanities area requirement would increase burden to the Humanities Division. In response, it was explained that there would be reduction in burden because of the reduction of credit load in the area. (SHSS UG Coordinators and Faculty)

There were concerns about the credit distribution. It was asked if the credit distribution among the areas is fixed. In response, it was told that the distribution is still subject to discussion and revision. The area based requirement might be revised, as suggested, to school-based or so. (SHSS UG Coordinators and Faculty)

In the new framework, students will be excluded from taking some area courses according to school basis. It was opined that the arrangement would deprive students from learning opportunities and interaction among peel groups in different areas. (IPO UG Coordinators and Faculty)

There were concerns about how to define the areas of Humanities, Social Analysis and Science and Technology. It was argued that the area definition will depend on how to classify relevant courses into respective areas. The relevant courses will teach the subject knowledge of particular area. Thus different areas will have different compartmentalization of courses. Resources allocation issues were raised regarding this way of course arrangement. (IPO UG Coordinators and Faculty)

At present, Science and Engineering students will tend to choose the elective courses from the Science and Technology (S&T) area. Under the new framework, it was commented that the ways in taking courses would be different since it would be school based to choose the area courses and also the elective requirement is taken away. Thus the demand for the S&T area would be down sized. (IPO UG Coordinators and Faculty)

It was argued that the broadening courses are not necessarily needed to be categorized as complimentary in nature. The course choice arrangement in the broadening category was considered as too prescriptive, since the arrangement would restrict students in exploring their choice in courses. (CUCE and CRPs)

It was suggested that the Computational Thinking/Data Analytics Mindsets and Creative Arts could be re-grouped under the broadening category so as to widen the choice of courses under this category. (CUCE and CRPs)

School-based boundary is set out for 9 credit of courses in choosing different areas under this category. Instead of a restriction on choice of courses in different areas, it was suggested that

students could be allowed to freely choose the courses up to the maximum of 9 credits. However, there was argument that some students might choose all courses from just one area and thus this is not aligned with the broadening purpose. (CUCE and CRPs)

6. Capstone Course

   The capstone course is a major revision to the Common Core framework. It was commented that as it will be of interdisciplinary nature, it will not be split and taken up by Schools; instead Schools will nominate faculty of the specialty concerned to design the course. (SSCI UG Coordinators)

   The idea of the capstone course was appreciated. However, there was concerns about its sustainability in the long run because it is not school-based so there will not be any school-based ownership of the course. (SSCI Faculty)

   In the curriculum, there is the existing capstone project requirement for the Science major students. It was suggested that students should be allowed to choose either to take the capstone course requirement for their majors or to take that for the Common Core program. (SSCI Faculty)

   It was doubted about how the coordination of the capstone course for delivery could be done in a systemic way as there would be different course designers coming from multi-disciplines. In response to this, it was noted that the core courses run by the CUHK demonstrate good and successful examples. This could be shown by that out of 5 points, their students placed 4.7 in the students' feedback survey. (SSCI Faculty)

   It was commented that there should be delicate teachers from relevant disciplines equipped with specific knowledge of the capstone theme to teach the course. Furthermore, since the topics are about current issues, they should be changed with time. In response, it was told that the teachers need not to be experts in the field but just facilitators in class with the detailed lesson plans and the well-developed course structure and the course topics would be changed after some years. (SSCI Faculty)

   Since the lesson plan will be very detailed and the course instructors are just facilitators but not experts in the field, there were worries that the teaching load would be very heavy for the instructors. (SSCI Faculty)

   To encourage students to study the capstone course, it was suggested to adopt pass and fail grading as this would benefit students. The suggestion was made also given that since the capstone course is a required course, students have to take it; and it would be very difficult to grade this kind of course. (SSCI Faculty)

   It was further suggested that the capstone course could be considered to be an optional requirement, instead of a compulsory one, in order to provide more flexibility. (SSCI Faculty)

   There was much concern about the teaching arrangement for the capstone courses. It was told that some departmental TTFs had expressed their expected difficulties in teaching the capstone courses in the role as facilitators in delivering the courses. Since the topics of the courses would be out of their expertise, they would lack an in-depth knowledge to teach them. Also the idea would be to invite those TTFs who are interested in teaching the courses to take up the teaching role. Given their concerns, there might be difficulties in recruiting suitable teaching staff for the delivery of the courses. (SENG UG Coordinators)

Furthermore, there was also concern about the course delivery arrangement. As suggested, if only 1 or 2 courses out of the 4 in the capstone category became very popular choices of students, most students tended to take these 1 or 2 courses; difficulties would then be created in terms of offer of course places and even students' study pattern. Though considerations have already been set out in the feasibility of course implementation about this scenarios, it was suggested that different mechanisms should be worked out to deal with the offer of course places. (SENG UG Coordinators)

Who can teach the capstone course in view of its multidisciplinary nature?
In response, it was told that the capstone course is not a school based course but is expected to be designed by faculty members of different disciplines. (SBM UG Coordinators)

What role is for the instructor of the capstone course in class?
It was explained that the instructors would be facilitators in class and students would have studied relevant teaching materials before class; since the instructors would not have full knowledge of the theme of the course, they would follow the lesson plans for the course to teach. (SBM UG Coordinators)

Since the capstone course is multidisciplinary, how should the instructors do the assessment for it?
It was commented that as the instructors may not have the domain knowledge, it could be very challenging for them to do the assessment. Furthermore, while the assessment done by the instructors may be subjective, it was suggested there could be a panel formed to collect and mark the assignment, instead of just the instructor doing the assessments by themselves. (SBM UG Coordinators)

The capstone course was introduced not just as a traditional course. There were concerns about the scalability of the course as it is a required course in the new framework. (SBM Faculty)

Furthermore, there were also concerns about what the layout and contexts of the course would be. It was told that the Steering Committee would work out the learning outcomes for the capstone course. In terms of the learning outcomes, there would be 75% identical but just 25% are context specific. (SBM Faculty)

It was further commented that the SBM major capstone course is very different from the capstone course proposed under the new framework of the Common Core program in terms of contents and depth. It was doubtful about the value of introducing the latter. (SBM Faculty)

There was suggestion that the capstone course could be substituted by other relevant courses. Individual programs should be allowed to customize their courses. (SBM Faculty)

It was commented that there would be difficulty to manage the capstone course considering that the course designers and the professors (who will come from different disciplines) would need to be closely coordinated. Given different interests and expertise among professors, and different teaching styles as well, that would definitely add to difficulties in both designing and implementing the course. (SBM Faculty)

In view of the medium of instruction, there were concerns on whether Chinese or English would be adopted; even in Chinese, whether it should be Cantonese or Putonghua. (SHSS UG Coordinators and Faculty)

The experience in teaching HUMA1000 was shared as the designers and facilitators of the course are different which is similar to the arrangement of the capstone course. The delivery of HUMA1000 was

regarded as not so successful. It was found that students of HUMA1000 did not appreciate the learning experience in taking this course. Also while the facilitators of the course might not have the expertise in the topics to be taught, it would be difficult to achieve what the course would intent to deliver. In view of the similar implementation experience, there was concerns about the feasibility of successful implementation of the capstone course. In this light, the Minerva teaching model was shared. Although the Minerva teaching experience was told to be a good model which can be adopted for the capstone course, it was commented that the nature of the capstone course is very different from the Minerva program. (SHSS UG Coordinators and Faculty)

In offer, 3 to 4 capstone courses will be offered so students have 3 to 4 themes to choose from the courses. There were concerns about that only 3 to 4 themes available for students to pick up would be rather limiting in their choice. The availability of 3 to 4 specific themes would not be broad enough to provide flexibility to students in their choice as well. However, it was clarified that the intention is not to focus on teaching the knowledge of the problem but on enabling students' understanding and appreciating the complexities of the topic. As an alternative, there was further suggestion that students could be allowed to identify problems by themselves, instead of picking up problems chosen for them. The suggestion was hard to be adopted because of heavy resource implications. (SHSS UG Coordinators and Faculty)

Also it was concerned about how to evaluate the outcomes. There was suggestion that some kinds of measurement should be set out for the outcomes of the course. (SHSS UG Coordinators and Faculty)

The capstone course is appreciated of its multidisciplinary nature. However, how to ensure relevant aspects of disciplines, including Humanities, is included in its design and contents was questioned. (SHSS UG Coordinators and Faculty)

The title "Capstone" was suggested to be changed. This was because the title has implication on the positioning of the course. Some new titles were proposed such as "Sustainability", "Grand Challenges", etc. (IPO UG Coordinators and Faculty)

Given the learning experience by the course, for benefit of students, it was further suggested that the course could be set out for studies at earlier year of study, say at year 2, instead of year 3. (IPO UG Coordinators and Faculty)

There were concerns about how to attract faculty to teach the course, since the course is not a school-based one. Though the CUHK has a successful experience in delivering similar common core courses, it was commented that the CUHK model is different from our model. The courses in CUHK are taught by a separate group of instructors who are full-time faculty dedicated to solely deliver the courses, while those in HKUST would be taught by the existing faculty who also get other teaching and research assignments. (IPO UG Coordinators and Faculty)

Blended learning flipped classroom model would be implemented for the capstone course with pre-class reading. However, the assumption that students would do pre-class reading was questioned. In response, it was argued that whether this teaching arrangement works would be dependent on how to structure the class. So it is important that there should be very structured and well-designed in-class materials for discussions. (IPO UG Coordinators and Faculty)

The capstone course will be a mandatory course under the new framework. There will be diversity of students taking the course since everyone has to do it. It was commented that there would be

difficulty in ensuring all students to play their role in doing the project set by the course. Thus delivery of the course was viewed as a challenging job. (IPO UG Coordinators and Faculty)

There were concerns that the course will be designed and delivered by different faculty. The instructors of the course need not to be experts in the topics as they are facilitators in delivering the course. In response, the Minerva model was suggested as a possible way of teaching this kind of course in terms of how it could be helpful in scaling up the classes. (IPO UG Coordinators and Faculty)

The Common Core program was considered as a small program with only 27 credit requirement, compared to a major program. Furthermore, there would not be enough training in different discipline areas so it would be difficult for students to work on the capstone course which would involve interdisciplinary knowledge. It was questioned whether it would be appropriate to include a capstone course in the program. (CUCE and CRPs)

To be more practical, there was a suggestion that the capstone would not be set out as a required course at the beginning; instead it could be piloted on a trial run basis to test if it could be worked out. Since the students admitted in 2020 would not take it until two years later, it would leave time for the development and trial of the course. (CUCE and CRPs)

The concept of the capstone course was supported. However, it was doubted if all students could do it as it would be set as a required course. It was suggested to be tested out as an elective for its trial run to see if it works or not. Thus before it is to be prescribed as a requirement, the course could be set as an elective instead of a required course. Also the course could be scaled down a bit as an elective rather than a required course; in terms of contents, it would be narrowed down to focus on competencies so that it would be easier for management. (CUCE and CRPs)

There was another suggestion that the capstone course could be retitled so as not to be so confusing in nature as implied by its name. (CUCE and CRPs)

The HUMA1000 was regarded as having similar teaching arrangement as this course. The course was considered as not successful in the teaching experience from the eye of the CUCE. In response, the successful Minerva model was shared. (CUCE and CRPs)

7. Overall
   Since the total credits for the Common Core will be reduced from 36 to 30, it was commented that there will be impact on the honor classification calculation. Under the new framework, it is intended to deliver new transferrable skills and competency to students. There were concerns that a lot of uncertainty may be arising. (SSCI UG Coordinators)

   Participants expressed reservation in the drastic changes proposed to the Common Core program. It should be very careful in reviews and proposals for the revisions. There should be strong justifications in any changes proposed. (CUCE and CRPs)

8. School-sponsored courses (SSC)
   In the new framework, the SSCs have been deleted. It was suggested that while a lot resources have been put into SSCs, some SSCs could be retained in the new structure. (SSCI Faculty)

   The School-sponsored course requirement will be deleted under the new framework. It was questioned why the requirement is taken away. Despite the deletion of the requirement, the existing courses could still be offered in future. (SHSS UG Coordinators and Faculty)

9. Double-counting rule

   In the new framework, there will be a reduction of 6 credits resulting in the total credits of 30. It was concerned that the credit reduction would affect some programs. However, it was clarified that with the existing double-counting rule, students normally take 6 credits in courses which can be double-counted with the school requirement or the major requirement, resulting in taking 30 total credits, instead of 36 credits, for solely common core courses. Since in the new framework, no double-counting would be allowed, there would basically be no impact in the 6 credit reduction. (SENG UG Coordinators)

   In the new framework, the double-counting rule is not allowed. This new rule was supported. (SBM Faculty)

10. KPI

    It was asked how to measure if the implementation of the new framework works. It was suggested that KPIs could be set out for measurement on what students have learned, especially for the capstone course and also foundation courses. (SBM Faculty)

    It was asked how to measure of the effectiveness of the implementation of the Common Core program. In response, students' SQF results were regarded as one way to see the effectiveness. It is needed to think about how to measure what we intend to deliver, especially for the capstone course. Some attributes might be identified to spell out the themes of the course. (Deans/IPO Director)

11. Transitional arrangement

    The review of the common core program involves much changes. The changes will affect the teaching staff as new teaching staff and rearrangement of the existing staff might be needed. Thus the implementation of the new framework was concerned as it will have implication in the period for transitional arrangement (SHSS UG Coordinators and Faculty).

12. Implementation schedule

    There were concerns about the implementation schedule in view of the burden in submitting course proposals for the new common core program since more than 300 courses would be needed to be reviewed and migrated for the common core course list. The process would involve much manpower issues to be sorted out. (CUCE and CRPs)

13. Entrepreneurship

    In the new framework, the entrepreneurship discipline has not been put into any area of studies. It was asked whether it should be explicitly embedded into a particular area of studies as it is a popular discipline which is to be promoted to students. It was further suggested that the entrepreneurship mindset could be embedded in the capstone course or other area of studies, but the problem is concerned with how to incorporate it into the area. (SSCI UG Coordinators)

14. Flexibility in course choice

    Elective choice was suggested to be set up for students to choose, especially from the Creative Arts and Computational thinking/Data Analytics Mindsets. This would give students a higher flexibility in their studies. (SSCI Faculty)

    It was further suggested that more flexibility should be given to students to let them to choose their courses from different areas from the foundation and broadening categories, except Chinese and English. A maximum limit of credits could be set up, instead of setting limit on the credits to be taken in each given area. (SSCI Faculty)

Second Round of Consultation on the Newly Proposed Common Core Framework

Part I: Notes on Consultation with the Committee on Undergraduate Core Education (CUCE)

Date:	12 October 2020 (Monday)
Time:	2:30 pm to 4:30 pm (discussed as an AOB item at the 56th CUCE meeting)
Channel:	via an online platform Zoom
Participants (Members of the CUCE):	Prof Percy Dias, Chairman (ISOM) Prof Tim Woo, Secretary (UCE/CEI) Prof Melody Chao (MGMT) Prof King Chow (DSTO) Prof Arthur Lau (IPO) Prof Jensen Li (PHYS) Prof Sean McMinn (CLE) Dr Sai Lok Nam (HUMA) Mr James Prince (ARO) Prof Chii Shang (CIVL) Prof Jing Wang (ISOM) Dr Trevor Webb (PRVST)
In attendance:	Prof Anirban Mukhopadhyay (APTL), Chairperson of the Steering Committee

Revised proposal for consultation (Fall 2020):

CC Group	Credits	Common Core Area	Credits breakdown
Experiencing Years 3-4	3	• Common Concerns Project: A choice of 4 structured & carefully designed courses, each based on a different interdisciplinary theme but the same learning outcomes and pre-requisites in Foundations and Broadening • UxOP: UROP, UTOP, UPOP	3
Broadening (with specific outcomes) Years 2-3	12	Arts (Creative, computational… Multiple versions)	Different requirements for different programs
		Humanities (H)	
		Science (S)	
		Technology (T)	
		Social Analysis (SA)	
Foundations (Skillsets & Mindsets) Year 1	15	Critical Thinking and Data Literacy	3
		English Communication	6
		Chinese Communication	3
		Habits, Mindsets, and Wellness	3
	30	**Total Credits Required (no double-counting)**	30

Feedback on two major issues were raised and discussed:

1. <u>Double Counting Policy</u>

   A CUCE member pointed out that SENG students currently fulfilled the general foundation requirements (e.g. mathematics) using the double counting allowance. It was wondered how students could fulfil these requirements and how SENG could fulfil the Hong Kong Institution of Engineers (HKIE) accreditation requirements without double counting.

   It was explained that:

   (a) The 6-credit reduction in total credit requirements for the Common Core Program from 36 credits to 30 credits could be used to fulfil the requirements of those general foundation courses.

(b) Schools would be given the discretion, subject to approval by the relevant committee(s), to make the necessary adjustments in the credit requirements to fit in the study pathway for their programs. Further discussion with the Associate Deans would be arranged to work out the details.

2. Experiencing Courses

2.1 A member stated that summer internship and project-based courses of at least 8-9 credits were already covered in the SENG curriculum which are similar to the experiencing courses; and asked if double counting could be allowed.

It was responded that:

(a) No double counting would be allowed.

(b) The Student Engagement and Satisfaction Questionnaire (SESQ) revealed that students who have participated in internship programs and experiential learning are generally more satisfied with their HKUST experience. It would be good to have more internship programs and experiential learning with an aim to increase overall satisfaction levels.

(c) The University had committed to the University Grants Committee (UGC) as one of our key performance indicators (KPIs) to offer more experiential learning courses. Yet, it was noted from an instructor self-reporting process that on average only 8.5 student credit-hours were devoted to such courses. There was room for the University to take more actions to fulfil our commitment.

(d) The common core internship experience (UPOP) would be different from those offered by the Schools (focusing on major programs), with an added emphasis on cross-disciplinary communications.

(e) Students who are less interested in internship may choose from other experiencing courses such as UROP (Undergraduate Research Opportunities Program), UTOP (Undergraduate Teaching Opportunities Program) and Common Concerns Project which would also provide students with cross-disciplinary learning experience.

2.2 A follow-up comment was made that some SENG internship programs were scheduled in the summer of students' 3rd year of study. Flexibility should be allowed in the arrangement of these programs and experiencing courses with a holistic view.

It was agreed that flexibility would be allowed and students could complete the experiencing requirements in their 4th year of study.

Part 2: Notes on Open Faculty Consultation Session

Date: 22 October 2020 (Thursday)
Time: 12:00 nn to 2:00 pm
Channel: via an online platform Zoom
Presented by: Prof. Anirban Mukhopadhyay (APTL), Chairperson of the Steering Committee
Participants: Faculty members, HKUST
No. of participants: 60

Revised proposal for consultation (Fall 2020):

CC Group	Credits	Common Core Area	Credits breakdown
Experiencing Years 3-4	3	UxOP: UROP, UTOP, UPOP, UCOP • A choice of 4 structured & carefully designed programs, each with a different focus but commonalities in learning outcomes, requirement for cross-disciplinary, global, and systems thinking and communications, and pre-requisites in Foundations and Broadening	3
Broadening (with specific outcomes) Years 2-3	12	Creative and Computational Arts	Program-specific requirements
		Humanities (H)	
		Science (S)	
		Technology (T)	
		Social Analysis (SA)	
Foundations (skillsets & mindsets) Year 1	15	Cognitive Foundations of University Education: Critical Thinking and Data Literacy	3
		Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3
		English Communication	6
		Chinese Communication	3
	30	**Total Credits Required (no double-counting)**	30

Major comments from participants and responses to the comments:

A. Program Framework

1. <u>Scaffolding Structure</u>

1.1 Some faculty members were confused about the term "scaffolding" as part of the structure in the revised framework.

It was explained that "scaffolding" is a term used for a Common Core program which included pre-requisites. The proposed scaffolding structure would work as follows:

(a) The Common Core Program would be migrated from a "distributional" model without pre-requisite requirement among common core courses to a "scaffolding" model with pre-requisites build in the three common core groups namely Foundations, Broadening, and Experiencing. Foundations courses would serve as pre-requisites to Experiencing courses. The nature of the pre-requisite relationships between Foundations and Broadening courses, and between Broadening and Experiencing courses, would be reviewed once there was a clearer understanding of which existing Common Core courses would be migrated into the Broadening section.

(b) There would be scaffolding of transferrable skills in terms of a collection of competencies that the University desires our graduates to possess. This would be a different route from, yet supplementary to, the academic content of the courses. Rather than technical knowledge as imparted in these Common Core courses, the competencies embedded in the teaching would be explicitly spelled out such that both instructors and students can see the connection among courses in a stronger and more effective way. This was indeed a new

concept that many HKUST colleagues are not familiar with, and therefore, two faculty members from the Minerva Schools at KGI are spending two years as virtual visiting scholars at HKUST to help us with it. They are currently working with the Center for Language Education (CLE) to develop a set of competencies for the E-Core and C-Core courses as pilot run of the competency-embedded teaching and assessment. More details would be available after the pilot run.

It was elaborated that it would be an iterative process to review whether it is more appropriate to adopt (a) a hard structure with a specific course serving as pre-requisite to another course; or (b) a laissez-faire structure with a certain number of credits in the Foundations/Broadening group being set as pre-requisite requirement to Broadening/Experiencing group. A thorough study on intended learning outcomes (ILOs), competencies, and their mappings of the courses would be necessary if this proposed framework were to be approved.

1.2 It was commented that the outcome-based learning outcomes of the current framework which had been implemented for 10 years were functioning pretty well.

It was explained that students generally did not see the connection between learning outcomes of different common core courses. Moreover, effective and objective measurement of the achievement of these learning outcomes was currently missing, since they were currently measured using subjective instructor self-reports, and were not systematically tracked over time, either within a course or for a given student. Competencies, on the other hand, can be tracked and measured over time in a more objective manner.

2. <u>Program-based Exclusions</u>

2.1 It was enquired if there would be any restriction for schools/programs to decide the program-specific requirements in the Broadening group. Some faculty members worried if schools/programs may act against the broadening objective in favour of their students by assigning all of the 12 credits to common core areas relevant to their major programs; which would in effect cut out the Division of Humanities (HUMA) entirely. There was also the opposite concern that all of the 12 credits might be assigned to the humanities (H) area; which would put HUMA under pressure to deliver the requirement.

It was responded that the procedural details would be discussed with the Associate Deans. While it was not preferred to impose too many restrictions, some clauses would be needed in view of such anticipated violations of the Common Core objectives.

B. Courses

3. <u>Project-based Courses</u>

3.1 The Undergraduate Experiential Opportunities Programs (UxOP) were proposed as cross-disciplinary project-based experiential courses. A faculty member from the Division of Integrative Systems and Design (ISD) pointed out that ISD students are required to take more than 20 credits of project-based courses and to work for a company in their 4th year of study; and asked if they can be exempted from this requirement.

It was explained that the proposed experiential projects would be different from the school/major projects such as the science and engineering capstone projects and the ISD projects which focus mainly on technical knowledge in specific field of study. The experience the Committee proposed would be cross-disciplinary in nature. It was also observed that rather than “too many” project courses, University-wide only 8.5 credit-hours were spent in structured active learning.

4. UxOP

4.1 UROP (Undergraduate Research Opportunities Program), in its current form, is credit-bearing but not grade-bearing. With the small enrolment numbers, some faculty members were willing to take this task up even though it does not count towards their teaching load. It was worried that UROP would be ruined if it is upscaled to 2,000 students and made both credit- and grade-bearing.

It was clarified that the UROP would not be upscaled. Rather, it would probably be remain niche, with about 100 students as is current.

4.2 There was a concern on the pre-requisite requirement for UROP, which was not currently in place, under the new scaffolding structure.

It was explained that there would be two scaffolding elements for UROP: (a) the normal progression from UROP 1100 to UROP 2100 and so forth; and (b) the complement to the common core requirement with UROP 1100 being the pre-requisite to the new common core UROP course. Students would be required to conduct self-reflections and discuss and present their research findings to other students in the course, who would be from other disciplines. All of these activities would be designed to be not related to the student's research topic but rather to the designated ILOs and competencies, especially cross-disciplinarity and communications.

4.3 A faculty member raised his concern that UxOP may work against the broadening purpose in the sense that students may stay in their comfort zone in selecting the "x" and the research/teaching/practice topic. It was also suggested that non-academic staff be deployed to manage the heavy-loaded logistical work for UxOP.

These will surely be taken into consideration when working out the details of the framework and requirements.

5. Critical Thinking and Data Literacy Course

5.1 Critical Thinking and Data Literacy were proposed as cognitive foundations under the revised framework. It was expressed that critical thinking has already been covered in many school/major courses, and indeed, the whole spectrum of many programs; contents of which might largely be overlapped with this new common core course. Given that no double counting would be allowed, some faculty members asked if there can be any exemption to this requirement.

It was explained that while "critical thinking" can be interpreted in different ways, the term "Critical Thinking" has a very specific connotation as laid out in the course proposal and ILOs. These pertain to the ability to parse a problem, identify information sources, and evaluate the available data and assess plausible solutions, which are a set of skills that are transferrable across contexts. The alarming situation of the flat/declining scores in Critical Thinking in the Annual Assessment of Graduate Attributes and Information Literacy Tests (AAGA) for the classes of 2019 and 2020, as well as the criticism from employers, reveal the compelling need for the University to invest in and strengthen our teaching of the generic "Critical Thinking" skills.

5.2 A faculty member stated that the idea to incorporate critical thinking into the common core curriculum was supported. Yet, such "critical thinking" had well been covered in multi-disciplinary programs such as the ISD program with various systems/design thinking courses.

It was further explained that HKUST was good at introducing innovative programs for small groups of students but a broader curriculum would be needed to reach the larger student body. Also, Critical Thinking as defined for this proposal course is more primitive than the ISD courses.

Indeed, it is an initial step in both design thinking and systems thinking, which are taught in a few programs at HKUST, but the majority of our students do not have access to these courses. Besides, the proposed course has some flexi-modules for students from different programs to choose from, because it would be hard for a single program to provide students with the exposure to all modules structured in it. It was agreed that more concrete details of the requirement would be worked out to minimize the overlaps with existing courses to the extent possible.

5.3 There was a question on whether an instructor can propose another course if he/she views that the Critical Thinking and Data Literacy course does not cover the perspective of his/her expertise.

It was answered that any instructors who are interested in the course could join the course development team to design it. The principle was to create a course that could open students' minds with different perspectives.

6. Creative and Computational Arts Courses

6.1 It was enquired about the breakdowns of the educational needs on Creative and Computational Arts (A) courses.

It was clarified that a collection of arts courses covering visual arts, photography, music, film/animation, creative writing/poetry, theatre, dance, etc. would be covered. Different levels of courses would be provided for students with different levels of abilities and interests. Focus of the learning outcomes would be placed on the exposure, process, experience and appreciation of various arts forms.

6.2 It was asked whether a new academic unit would be established or different sets of course codes would be assigned for the arts courses given that no double counting would be allowed.

There would be assignment of different course codes based on (a) the assessment of competencies and mappings of existing courses; (b) the willingness and motivation of SHSS/instructors in migrating the current courses into the new framework and in developing new courses; and (c) no double counting would be allowed.

6.3 Some faculty members stated that all creative arts courses are covered in the new/proposed minor programs in creative arts. Tremendous burden would be put on students who are interested in taking these as minors if double counting is not allowed.

HUMA was suggested to look at those courses to decide which are suitable for minors and which are more relevant to the common core. Different versions of the courses might be introduced so that students could take some for their minor requirements and others for the common core requirements.

7. Incorporation of Human Factors

7.1 A HUMA faculty member raised out that the current system did not accustom students to the human factors which instructors of other fields often find it difficult to deal with especially after the various incidents in Hong Kong over the past year. While supporting the proposed framework, the faculty asked as to how human factors, human conditions, and the educational objectives would be bundled into the Critical Thinking and Data Literacy course.

It was explained that human factors are critical elements and Humanities would remain as a common core area in the Broadening group. It was expected that each student should take at least one course in the H and/or A areas in this group. HUMA also had an important role to play in the Critical Thinking and Data Literacy course with the perspectives of logic, communication,

etc. in critical thinking. It was emphasized that the limitation on human factors elements related to the extent of desire that HUMA faculty members expressed in participating in framing the new/migrated common core courses.

C. Others

8. Timeline

8.1 As the only offering unit for H courses in the University, HUMA enquired about the implementation timeline of the new framework.

It was reminded that the target was to get Senate's approval on the final proposal in February 2021, after which the implementation plan and transitional arrangement would be devised. Pilot run of new courses would be arranged from September 2021 to June 2022. The new Common Core Program would be launched for Fall 2022 intake by which all Foundations courses should be ready. Since students were expected to take Broadening courses (including H and A courses) in their 2nd and 3rd years of study, these courses should be ready by Fall 2023.

9. Resources Implication

9.1 With the re-distribution of credit requirements in the Broadening and Foundations groups, it was asked if there is any resources implication.

It was answered that the total reduction of 6 credits from 36 credits to 30 credits for the entire Common Core Program would be used to compensate the cancellation of double counting. Re-distribution of credit requirements among different areas was expected. For example, credits for quantitative reasoning (QR) area would be taken away, credits for H and A areas would probably be increased, etc. The Undergraduate Core Education (UCE) Team was working on the relevant statistics and would provide a clearer picture on the impact in the near future.

10. Incentives to Departments/Instructors

10.1 A faculty member raised the incentive issue for the Committee's consideration as to how departments/instructors will be motivated to offer common core courses when a common prefix, *CORE*, instead of a departmental prefix is adopted, together with the cancellation of double counting policy, under the revised framework.

11. Effectiveness of the Program

11.1 It was argued 50% of HKUST faculty members would not care about any of the changes in the Common Core Program framework.

It was responded that this claim should not avoid the University from implementing any changes with the hope to improve the Common Core Program.

11.2 Another comment was made as regards the effect on the improvements to the teaching and learning in addressing the issues of "HKUST has less pride in its education" and "research-focused universities systematically marginalize teaching" as long as untenured faculty are told to focus on research.

It was re-emphasized that the Committee was proposing changes to the Common Core Program as appropriate at its best attempt. If the issue is with the message that the School Deans or Department/Division Heads send to their faculty, then this should be dealt with at the School or Department/Division level.

11.3 It was questioned how we could tell if there will be any improvement in 5 years.

It was clarified that one of the objectives of the scaffolding structure is to be able to assess outcomes and competencies clearly and objectively, to answer questions like this.

Part 3: **Notes on Consultation in the Meeting among APTL and Associate Deans**

Date:	**22 October 2020 (Thursday)**
Time:	**4:00pm to 6:10 pm** (discussed as the last agenda item in the meeting for an hour)
Channel:	via an online platform Zoom
Participants:	Prof. Anirban Mukhopadhyay (APTL) Convener Prof. Jimmy Fung (IPO) Prof. Allen Huang (SBM) Ms. Renee Kou (ARO) Prof. Pakwo Leung (SSCI) Ms. Anne Luk (ARO) Prof. Philip Mok (SENG) Prof. Melinda Whong (SHSS, CLE) Prof. Carine Yiu (SHSS) Ms. Sophie Tsa (PRVST) Secretary

Since most members of the meeting had attended the open consultation on the same day, APTL invited the Associate Deans/Representative of IPO to give their comments and feedback on the proposal. The discussion on the Common Core revamp lasted for over an hour and the major comments from participants and responses to the comments were listed below:

1.1 A member pointed out that if the double-counting policy was removed in Common Core program, then many courses would be migrated to Common Core rather than remained as major electives, and this would hurt majors with low enrolments.

It was responded that Academic Director of UCE and his team were working on estimating the impact and we would have a better idea of the numbers in some weeks. Department / Division Heads had the autonomy in determining which courses would migrate to CC and it was up to CUCE to accept these.

1.2 A member argued that many people had many reservations about the proposal. Broadening was a waste because only one course from every section did not mean any depth in the subject matter.

It was answered that this was a criticism of the current structure as well. Overall, the University believed in the objective of broadening students' exposure. The Steering Committee had considered many models of universities in the US and HK and were recommending what we believe was best suited and applicable for our purposes.

1.3 A member suggested that the broadening restriction should be limited to the first major only.

It was agreed that this was a good suggestion. Many students would choose their majors in the second year, so they would need to know the restrictions at that time, and the administration could not retroactively impose restrictions if a student were to add an additional major later.

1.4 A member said that he fully supported the proposal. However, after this revamp, our students might still believe that CC was a waste of time. Many students just wanted to focus on their majors.

It was responded that we would need to communicate this better. The system of tracking competencies would help. The Director of CLE also pointed out that we would need to do a better job of telling students what they had learned.

1.5 A member advised that from his experience of organising similar teacher practice courses, UTOP needs to be discipline-specific (in terms of the subjects being taught, like UROP is in terms of the subjects being researched).

It was responded that the idea was very relevant and helpful. It was understood that if a Physics student did an outreach to a Physics high school class, this arrangement should be fine. The cross-disciplinary component would come in the form of the pre-engagement training and the post-engagement sharing and reflections.

1.6 A member commented that “you are making us sign a blank cheque” since many details of the proposal have not been fully developed yet.

It was responded that once the full proposal with all the details were ready, we would send to Associate Deans/IPO representative for scrutinizing.

Part 4: **Feedback from Nominated Students**

Date:	**21 October 2020 (Wednesday)**
Time:	**1:30pm to 2:30 pm** (discussed for half an hour)
Channel:	In-person in the Library
Participants:	Prof. Anirban Mukhopadhyay (APTL) Convener Nominated students from SSCI (BIBU), SENG (MAE), and SBM (ECON); names concealed to protect identity

As the first in a series of planned informal interactions with students, the APTL requested SSCI, SENG, and SBM to nominate one student each for a casual chat over drinks and snacks. The current social distancing regulations forced the group size to be four, and hence only one representative was invited from each of the three largest Schools (SHSS and IPO were requested to nominate students for a later date). The discussion on the Common Core revamp lasted for half an hour following a half-hour discussion on the online learning experience. Afterwards, the three students emailed the APTL the following comments about the current and proposed Common Core:

SSCI student

1. Students cannot enroll in the courses they want until final/ senior years.
2. For courses required students to be TA, there are a few courses you may want to have a look: LIFS 4200 and BIBU 4820 by Prof. Ng
3. Some courses in the level 3 common core could have a selection process, since smaller class size may have a better learning experience for classes that are project-led.

SENG student

1. The necessity of SSC courses (they are not necessarily the best courses)

SBM student

1. I think the current common core curriculum requires too many credit, maybe could reduce 1-2 courses. Also, as <the other two students> had mentioned, we don't really see the point of SSC courses as they don't seemed very different than other CC, though they are usually more competitive in course registration.
2. Positive towards the proposed new CC scheme. My only concerns are the capacity problem, UROP GPA requirement, and the effectiveness of the TA 3000-level experience course (UTOP?). Some students in UTOP could be very passive since TA need not to actively reach out to students in the course, if it is a big class with many TAs.

Revised Curriculum

Current Common Core Framework

The requirements comprise a total of 36 credits (out of 120-126 credits) to be elected from 8 broad core areas, of which 9 credits must be taken from school-sponsored courses (SSCs). Students are expected to complete the majority of the common core credits in Year 1 and 2. The 6 credits of English Communication are to be taken in the first year.

Common Core Area	Credits		Note
	Required	Elective	
Humanities (H)	6*	6	* 3 credits must be from H SSCs.
Social Analysis (SA)	6*		* 3 credits must be from SA SSCs.
Science and Technology (S&T)	6*		* 3 credits must be from S&T SSCs.
Quantitative Reasoning (QR)	3		
Arts	0		
English Communication	6**	Nil	**Must be taken in the 1st year of study
Chinese Communication	3	Nil	
Healthy Lifestyle	Non-credit	Nil	
Total Credits Required	**36 (6-9 can be double counted)**		**Note: "SSCs" denotes "School-Sponsored Courses"**

Proposed New Framework and Progressing Pathway of Common Core Program

Under the new framework, the total credits of the Common Core structure will be changed to 30 credits with courses in a three-tier of grouping.

CC Groups	Credits	Common Core Areas	Credit breakdown
Experiencing Years 3-4	3	**UxOP: UROP, UTOP, UPOP, UCOP** • A choice of 4 structured & carefully designed programs, each with a different focus but commonalities in learning outcomes, requirement for cross-disciplinary, global, and systems thinking and communications, and pre-requisites in Foundations and Broadening	3
Broadening (with specific outcomes) Years 2-3	12	**Arts (A)**	**Program-specific requirements**
		Humanities (H)	
		Science (S)	
		Technology (T)	
		Social Analysis (SA)	
Foundations (Skillsets & Mindsets) Year 1	15	**Cognitive Foundations of University Education: Critical Thinking and Data Literacy**	3
		Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3
		English Communication	6
		Chinese Communication **#**	3
	30	**Total Credits Required (no double-counting)**	**30**

Chinese Communication need not necessarily be taken in Year 1.

More details about the program specific requirements for the Broadening group are provided in **Attachment 6b**.

Initial Proposals for new courses and UxOPs

Attachment 7		Initial Proposal for Cognitive Foundations of University Education: Critical Thinking and Data Literacy
Attachment 8		Initial Proposal for Behavioral Foundations of University Education: Habits, Mindsets, and Wellbeing
Attachment 9		Initial Proposal for a new Common Core area in the Broadening Group: Arts
Attachment 10		Initial Proposal for a new Common Core area in the Experiencing Group: **U**ndergraduate E**x**periential **O**pportunities **P**rograms (UxOPs)
	Attachment 10a	**UROP**: **U**ndergraduate **R**esearch **O**pportunities **P**rogram
	Attachment 10b	**UTOP**: **U**ndergraduate **T**eaching **O**pportunities **P**rogram
	Attachment 10c	**UPOP**: **U**ndergraduate **P**ractice **O**pportunities **P**rogram
	Attachment 10d	**UCOP**: **U**ndergraduate Global **C**hallenges and **O**pportunities Program

Attachment 6b

Proposed Common Core Credit Requirements for Each School/Program - proposed by corresponding Schools/IPO in the Broadening CC Group

2021-01-05

CC Group	Credits	Common Core Area	Credit Breakdown												
Experiencing (Years 3-4)	**3**	UxOP: UROP, UTOP, UPOP, UCOP	3												
Broadening (Years 2-3)	**12**		**SSCI[1]**	**SENG[2, 3]**	**Special case under SENG: BIEN, CENG, CEEV**	**SBM[4, 5, 6]**	**SHSS (GCS)**	**IPO**				**JS Programs**				
								IIM	**EVMT**	**DDP[6] (SSCI & SBM)**	**DDP[6] (SENG & SBM)**	**BIBU (SSCI & SBM)**	**DSCT (SSCI & SENG)**	**MAEC (SSCI & SBM)**	**QSA (SSCI & SHSS)**	**RMBI (SSCI, SENG, SBM)**
		Arts (A)	3	3	Min 3	3	Min 3	student specific requirements	3	Min 3	Min 3	Min 3	Min 3	Min 3	3	Min 3
		Humanities (H)	3	3	Min 3	3			3	Min 3	Min 3	Min 3	Min 3	Min 3	3	Min 3
		Science (S)		3	0-3	3	Min 3		3		Min 3				3	
		Technology (T)	3			3	Min 3		3	Min 3		Min 3		Min 3	3	
		Social Analysis (SA)	3	3	Min 3								Min 3			
Foundations (Year 1)	**15**	Cognitive Foundations of University Education: Critical Thinking and Data Literacy	3												
		Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3												
		English Communication	6												
		Chinese Communication[#]	3												
	30	**Total Credits Required**	**30**												

[#] *Chinese Communication need not necessarily be taken in Year 1*

[1] Include SSCI programs: BCB, BIOT, BISC, CHEM, DASC, MATH, OST, PHYS

[2] Include SENG programs: AE, CIEV, CIVL, COMP, COSC, CPEG, DA, ELEC, IEEM, ISDN, MECH, SUSE

[3] COSC program will tentatively follow the credit requirements for other SENG programs. The credit requirements will be reviewed upon confirmation on the administrative rules on double major students.

[4] Include SBM programs: ACCT, ECOF, ECON, FINA, GBM, GBUS, IS, MARK, MGMT, OM, QFIN

[5] A specific set of credit requirements for the WBB program will be developed in consultation with partner universities.

[6] Pathways may differ for students with special requirements such as in programs offered in partnership with other institutions, not in 4-year programs, with a large number of transferred credits, etc. Such students should contact their program offices.

Initial Proposal for Cognitive Foundations of University Education: Critical Thinking and Data Literacy (3 credits)

Why have a Common Core course on Critical Thinking and Data Literacy?

The world is facing serious challenges such as climate change, economic inequality, mass migration, job losses due to automation, and pandemics. Responding to these challenges is critical. However, given the increased spread of fake news and people increasingly living inside filter bubbles, even getting a consensus on recognizing these challenges has become difficult. Once a problem is recognized, responding to them requires gathering information/data, questioning assumptions and biases, evaluating alternatives, proposing solutions, and critically evaluating them. In all of this, the ability to read, understand, create, and communicate data is very important. Why should we believe what we believe? Why should we act in a certain way? Why should we study what we study? What should be our goal in life? All of these questions require critical thinking and data literacy.

There is some evidence that critical thinking and data literacy skills need to be further developed in graduates: According to employers, critical thinking skills are one of the top three soft skills that are missing in applicants.[1] Data literacy has also been identified as a critical skill for the 21st century[2] (Bryla 2018). Nearly three in four employers claim that students they hire after multiple years of formal education lack the ability to think critically and solve problems. This is despite the claims of universities that they are developing these very skills.[3] At HKUST, the Annual Assessment of Graduate Attributes (AAGA) exercise revealed there is scope for further improving the critical thinking skills of HKUST students[4].

The Common Core has goals of developing these extremely important skills for HKUST graduates as they navigate their personal and professional lives. Critical thinking and Data Literacy is required in all fields: Scientists have to evaluate what inferences they can draw from an experiment. Business managers need to think about which markets to target? Engineers need to decide which technology to choose to solve a problem? At a personal level, an individual has to decide whether to believe a news article; or at a much deeper level what her goals in life should be? Given the increased availability of data, graduates should be comfortable at using data to support their thinking. This Common Core course will expose students to a wide variety of applications of critical thinking and data literacy: in personal and professional life, whether it be in science, engineering, humanities or business.

Critical Thinking in the Common Core Framework versus in Majors

As mentioned, many universities claim to teach Critical Thinking but employers feel differently. This discrepancy may be reconciled by noting that critical thinking skills may be being taught (indirectly) in many courses under different subjects or disciplines, but students tend to learn only the particular ways in which critical thinking is applied in the discipline-specific context of the course, instead of learning it as a transferrable skill or competency itself. Hence, students compartmentalize these

[1] https://www.shrm.org/about-shrm/Documents/SHRM%20State%20of%20Workplace_Bridging%20the%20Talent%20Gap.pdf
[2] Bryla 2018: Data literacy : A critical skill for the 21st century https://www.tableau.com/about/blog/2018/9/data-literacy-critical-skill-21st-century-94221

[3] https://www.insidehighered.com/views/2020/03/02/teaching-students-think-critically-opinion
[4] AAGA 2018/19: Annual Assessment of Graduate Attributes

critical thinking techniques and are not able to (maybe not even aware of the need) to apply critical thinking skills in other contexts outside the subject area they had learned the skills in.

The Common Core reform aims to teach Critical Thinking more intentionally and explicitly as a transferrable skill, and structure the curriculum or materials to help students to learn to apply this core skill across multiple contexts (with the help of the computerised competency tracking system) so that they will be able to apply the same skill in future contexts that possibly do not even exist today. Moreover, students in some Majors take related courses such as Computational Thinking, Design Thinking, or Systems Thinking. Critical Thinking is a primitive of such courses, since they usually cover more advanced material. Hence Critical Thinking is appropriate for a Common Core course.

Course Intended Learning Outcomes (CILO):

After taking the course, students will be able to:

- identify an issue/situation/problem
- analyse the elements/facts of a specific situation/problem
- gather and interpret relevant information/data/sources for the situation/problem
- establish relevant criteria and standards for acceptable solutions
- clarify assumptions made
- construct well-reasoned solutions/conclusions, supported by facts/data
- predict implications and consequences of the solutions/conclusions
- make and communicate decisions, with data when appropriate

Proposed implementation

The course is proposed to be taught in a blended-learning mode with flexible modules that students can choose based on their interests. The online component (e.g., online lecture videos) of the blended-learning course will be common to all students. Each module (lasting ~ 2-3 weeks) will focus on applications of critical thinking and data literacy in sciences, humanities, engineering, and business. Students will have to choose at least one module related to each of the above. Across these application areas, the underlying concepts and Intended Learning Outcomes relating to Critical Thinking and Data Literacy will be the same.

Lectures	*Modules*
Online (Common to all students)	**Flexi-modules (pick modules out of this list)** Critical thinking and Data Literacy in Sciences (I, II, III, IV…) Critical thinking and Data Literacy in Business (I, II, III, IV…) Critical thinking and Data Literacy in Engineering (I, II, III, IV…) Critical thinking and Data Literacy in personal life (I, II, III, IV..)

Similar courses at HKUST and other major universities

- Critical Thinking in Contemporary Society (HKU Common Core)
- Critical Thinking (CUHK General Education)
- Critical Thinking in Business (City, University of London)
- Critical Thinking (University of Michigan)

- Mindware: Critical Thinking for the Information Age (University of Michigan / Coursera)
- HUMA1710 The Art of Thinking in the HK Context
- HUMA1720 Logic
- HUMA1920 Introduction to Moral Philosophy
  (the three HKUST courses have a total enrolment of 180-240 students every year)

Initial Proposal for Behavioral Foundations of University Education: Habits, Mindsets, and Wellbeing (3 credits)

There is an "epidemic of anxiety" in Hong Kong, and the HKUST community is not immune. The events of 2019 and 2020, with the social unrest and Covid-19 pandemic, have revealed the magnitude of this crisis, and as "the University of Stress and Tension", we are not immune. This course seeks to build the foundations of transferable skills relating to self-management, teamwork, and wellness for university students transitioning to a diverse, dynamic, and international environment.

This blended, experiential, community-based course aims to increase students' awareness of their wellness and their confidence as Year 1 learners, as well as their sense of belonging, which is an important aspect of overall wellbeing. Course content will be delivered through a combination of online and face-to-face learning. Experiential workshops will provide opportunities for students to practise and assess wellness skills and reflect on and discuss how they can integrate these practices into their personal and working lives.

Course Intended Learning Outcomes (CILO)

After taking the course, students will be able to:

1. Cultivate an awareness and understanding of "wellness", physical and mental, and its importance
2. Learn how to take care of wellness using a variety of theories, practices, and experiences
3. Learn practical aspects of self-management, goal pursuit, responding to challenges and failure, and effective teamwork in a diverse, dynamic, and international environment
4. Build sustainable habits promoting wellbeing while in University and beyond

Background

Supporting student learning and development is the main function of a university. The relationship between well-being and learning is a complex one. On the one hand, well-being is a predictor of learning. On the other hand, learning is crucial for the occurrence of well-being because successful learning is a source of enjoyment at university.

Well-being is about much more than just enjoyment or other ephemeral feelings. It is an individual and social value as well as a basic psychological need. Much research has converged on the definition of well-being as a set of affective, cognitive, social, and physiological characteristics. Around the world, there is increasing concern regarding the well-being of students in higher education settings. For example, a Canadian study of over 42,000 students found that 67% of respondents had felt very lonely within the last 12 months, nearly 60% had felt things were hopeless, and 42% had felt so depressed it was difficult to function (National College Health Assessment II: Canadian Reference Group Report Fall 2016, American College Health Association, 2016). In Australia in 2016, the National Union of Students found that 67% of students rated their mental health as "fair" or "poor", and 65% reported high or very high psychological distress. Only 1.6% reported that no symptoms of mental health problems impacted their study in the past year (https://headspace.org.au/assets/Uploads/headspace-NUS-Publication-Digital.pdf). The 2020 United Nations World Happiness Survey found that Hong Kong was ranked 75th amongst the 153 surveyed countries/regions, slipping 29 places from its rank of 46th in the first such survey conducted in 2012, just eight years previously. Indeed, as

many as 14% of HKUST undergraduate students sought support from HKUST Counselling Services during the academic year 2019-20, and in Hong Kong overall the situation is so serious that the PEP for 2022-2025 explicitly calls for Universities to discuss how they plan to address mental health related issues in the university student population. More generally, the Okanagan Charter, an international charter, calls on institutions across the world to embed health into all aspects of campus culture and says 'Health promoting universities and colleges transform the health and sustainability of our current and future societies, strengthen communities and contribute to the well-being of people, places and the planet.'

At HKUST, the existing HLTH 1010 Healthy Lifestyle course is not credit-bearing, and there is much evidence that students attend the hours required of them merely to complete the requirements as a formality. Moreover, setting up the sessions requires a significant input of time, effort, and resources from non-academic staff at DSTO. The proposed course will retain the desired aspects of HLTH 1010, namely the physical, socio-emotional, and community-based activities, with academic content including measurable ILOs delivered in a blended-learning mode, small-group experiential learning, and graded reflections.

Possible lecture content (in no particular order; two lectures possible on some topics)

- The science of mental wellness (how the brain works/neuroplasticity etc.)
- Psychology and well-being (positive psychology +)
- Philosophies/theories of well-being (hedonism / eudaimonism / stoicism / life satisfaction / flourishing etc.)
- Self-understanding / Assessing wellness and planning for growth / Character strengths survey
- Growth mindset
- Kindness, social connections, and well-being / spreading positivity
- Models of wellness / people, passion, possibility / inspiring possibility
- The politics and economics of well-being
- Awareness of disorder
- Stress and coping
- Health behaviors

Possible Workshops (physical, mental, and social domains; with written reflections on each)

- Physical / sports activity (indoor, outdoor, and water sports)
- Meditation and mindfulness
- Stress management/resilience
- Time management
- Test/exam anxiety
- Communicating effectively/assertiveness and conflict management
- Healthy relationships
- Multi-cultural sensibility
- Diversity

Assessments

Online quizzes on lecture content 30%
Wellness surveys and journal 25%
Community project 25%
Physical / sports skills 10%
Peer evaluations of engagement and contributions 10%

Similar Courses at other Major Universities

Yale: Psychology and the Good Life (most popular Undergraduate course at Yale; now also available as a MOOC "The Science of Wellbeing", with over 3,000,000 students)

> This course will teach you a set of scientifically-validated strategies for living a more satisfying life. Throughout the course, we'll explore what new results in psychological science teach us about how to be happier, how to feel less stressed, and how to flourish more. We'll then have a chance to put these scientific findings into practice by building the sorts of habits that will allow us to live a happier and more fulfilling life. We'll also discuss how to apply these findings beyond our own lives to make our communities and our planet better too.
>
> The course begins by introducing some misconceptions that you too may have about what makes for a satisfying life. We'll see that many things we think matter for our happiness—wealth, material possessions, and even good grades—simply don't. In fact, recent studies suggest that these goals may even undermine our sense of wellbeing. We'll then take a good hard look at the psychological biases and dumb features of our mind that lead us astray, biases that make it hard for us to see what makes us happy and make us seek out the wrong sorts of things. We'll then discuss what psychology research shows about what we really should strive for to live a satisfying life. Having gotten our life goals straight, we'll talk about how to put these new life goals into practice. We'll review scientifically-validated strategies for harnessing our cognitive biases to live a better and more satisfying life. We'll also talk about how to prevent procrastination and how to harness our automatic processes to better achieve our goals. We'll end the course by thinking critically about how to use what we've learned both to hack our own happiness and to make a difference in our communities.

Stanford "Designing Your Stanford"

> Designing Your Stanford is a class about getting more out of, rather than cramming more into, Stanford. This course helps Freshmen and Sophomores craft a more fulfilling college experience by sharing practical design thinking tools and ideas. Topics include the purpose of college, major selection, educational wayfinding, and innovating college outcomes - all applied through an introduction to Design Thinking. This seminar class incorporates small group discussion, in-class activities, field exercises, personal reflection, and individual coaching.
>
> Many of us arrive freshman year having heard that the next four years will represent the best of our lives. But as wonderful as the Stanford experience often proves to be, it almost always presents a slew of difficult decisions and stressful tradeoffs. How do you choose a single major given the disparate interests you have? How do you discover all of the exciting opportunities Stanford has to offer? And once you've discovered them, how do you possibly choose among them? Most critically, how do you leave Stanford after four years feelings satisfied with the experience? Designing Your Stanford aims to help students navigate these thorny questions. Using a process rooted in Design Thinking, the course equips students with tools to design a college experience that better aligns with who they are and what they hope to get from Stanford.

Stanford "Designing Your Life"

> This course applies the mindsets and innovation principles of design thinking to the "wicked problem" of designing your life and vocation. The course introduces design thinking processes

through application: students practice awareness and empathy, define areas of life and work on which they want to work, ideate about ways to move forward, try small prototypes, and test their assumptions. The course is highly interactive. The course will include brief readings, writing, reflections, and in-class exercises. Expect to practice ideation and prototyping methodologies, decision making practices and to participate in hands on activities in pairs, trios, and small groups. Also includes roleplaying, assigned conversations with off campus professionals, guest speakers, and individual mentoring and coaching. It will conclude with creation of 3 versions of the next 5 years and prototype ideas to begin making those futures a reality. Open to juniors, seniors and 5th year coterms, all majors. All enrolled and waitlisted students should attend class on day 1 for admission. Additional course information at http://www.designingyourlife.org.

Syllabi from similar courses at other universities: https://ppc.sas.upenn.edu/resources/course-syllabi-teachers

Overview of research on existing courses: https://www.researchgate.net/publication/325889738_Wellness_Promotion_Courses_in_University_Settings_A_Review_of_the_Outcome_Research/fulltext/5b2afd880f7e9b1d00a0038a/Wellness-Promotion-Courses-in-University-Settings-A-Review-of-the-Outcome-Research.pdf

Courses with Similar Content at UST

SOSC 1980 Psychology and Everyday Life (average annual enrolment ~1000)

The course covers various issues that students will encounter during their transition to adulthood. Students who have taken this course can apply the principles and concepts in meeting the many challenges in everyday life so as to achieve a more adaptive personal growth and better psychological adjustment. Some topics include understanding of the self, interpersonal attraction and love, sexuality, interpersonal communication, stress and coping, and work-related issues.

LANG 1002 English for University Studies (Course taken by all incoming 1st year students; first unit called “People, Passion, Possibilities”)

Subthemes: 1. Passion and proficiency; this course and you – discussion about what the two terms mean and link between the two (if any); challenges that being at university/taking LANG 1002 will pose, especially being open-minded and curious.

2. Passion for learning – discussion of questions like ‘What excites you about being at university?’ ‘What are you looking forward to learning?’ ’What kind of person do you want to be at the end of your time here?’ ’Why did you choose HKUST?’

3. Passion for a cause – examples set by people like Leonardo DiCaprio, Angelina Jolie, Annie Leonard (The Story of Stuff), Boyan Slat (the Ocean Cleanup project) – how passion can promote possibility.

4. Inspiring possibility – speeches by well-known people like Steve Jobs as well as lesser-known people like Yo-Yo Master, Black, and Toastmasters International winner, Kwong Yue Yang.

Language skills development: Storytelling + giving a short speech to inspire possibility in other students (e.g., an imagined group from their own secondary school). Students coached to help their audience develop a 'possibility mindset**'.**

Initial Proposal for a new Common Core area in the Broadening Group: Arts

In the current Common Core program, it is possible for a UST student to go through four years without a single course in the Arts. We therefore propose to create a separate category for "Arts" in the "Broadening" section, with the aim of **exposing students to courses that have an explicit expressive, creative, or studio arts element**. This will broaden their horizons and lead them to experience and experiment with a large variety of diverse art forms, covering visual arts, photography, music (composition, voice, instrumental), film/animation, creative writing/poetry, theatre, dance, and so forth. Students will be able to **experience and experiment in studio arts settings, and express themselves in analog, computational, or mixed media formats**. The program will leverage space in the forthcoming Shaw Auditorium, as well as the Computational Media and Arts thrust area in the Guangzhou campus.

Intended Learning Outcomes:

After taking the courses in the area of Arts, students will be able to:

1. appreciate the theory, history and practice of the arts

2. cultivate artistic literacy, nurture aesthetic sensitivity and cultural awareness

3. develop creativity through the practice and application of art skills and conceptual thinking

4. express oneself through various art forms or media

Description of Arts in the Broadening group of Common Core:

Arts courses in the Common Core will broaden the horizon of our students with a large variety of art forms, covering visual arts, photography, music (composition, voice, instrumental), film/animation, creative writing/poetry, theatre, dance, and so forth. Students can experience and experiment with them in studio arts settings, and express themselves through analog, computational, or mixed media formats. The program will leverage space in the forthcoming Shaw Auditorium, as well as the Computational Media and Arts thrust area in the Guangzhou campus.

Initial Proposal for Undergraduate Experiential Opportunities Programs (UxOP)

Experiential learning is a process through which students develop knowledge, skills, and values from direct experiences. It refers to a broad spectrum of educational experiences, such as academic courses, service learning, undergraduate research, and internship opportunities, etc.

On average, HKUST students spend only about 8.5 credit-hours engaging in structured active learning. However, students who have experiential learning or internship experience report greater satisfaction with their major programs. Therefore, we propose to create the "Undergraduate Experiential Opportunities Programs (UxOP)" as the third tier in the Common Core. UxOP will consist of the following four programs, each having pre-requisites in Foundations and Broadening, of which students will be required to take one:

UROP: **U**ndergraduate **R**esearch **O**pportunities **P**rogram (more details in **Attachment 10a**)

UTOP: **U**ndergraduate **T**eaching **O**pportunities **P**rogram (more details in **Attachment 10b**)

UPOP: **U**ndergraduate **P**ractice **O**pportunities **P**rogram (more details in **Attachment 10c**)

UCOP: **U**ndergraduate Global **C**hallenges and **O**pportunities Program (more details in **Attachment 10d**)

Intended Learning Outcomes:

After taking the course, students will be able to:

1. Understand and appreciate a topical issue from the perspective of a researcher, teacher, or knowledge worker
2. Demonstrate critical thinking and the ability to analyze the issue using appropriate methods
3. Communicate with others having different disciplinary backgrounds in addressing the issue
4. Reflect on their experience and its implications for their own future learning

UROP: **U**ndergraduate **R**esearch **O**pportunities **P**rogram

- Upper level course in UROP sequence
- 3 credits instead of 1
- Research part as usual as per a regular upper-level UROP course
- Small-group cross-disciplinary presentations
- Students to organize a cross-disciplinary conference for each other
- Graded reflection

UTOP: **U**ndergraduate **T**eaching **O**pportunities **P**rogram

- Team-TA for undergraduate course or high school outreach
- Core training in pedagogical skills
- Group project with faculty mentor
- Student evaluations
- Students to organize a cross-disciplinary conference for each other
- Graded reflection

UPOP: **U**ndergraduate **P**ractice **O**pportunities **P**rogram

- Structured internship with faculty mentor
- List of approved firms/NGOs

- Area of work in internship different from student's major
- Pre-internship training
- Graded evaluation from internship supervisor
- Students to organize a cross-disciplinary conference for each other
- Graded reflection

UCOP: **U**ndergraduate Global **C**hallenges and **O**pportunities **P**rogram

- Theme-based group project
- Cross-disciplinary teams
- Themes relate to UN Sustainable Development Goals and Grand Challenges
- Four or five themes to be offered each year
- Possible themes: Aging, Food, Housing, Sustainable Production
- Emphases on process of problem structuring, identification of relevant data, and communications with stakeholders
- Graded reflection

Initial Proposal

UROP: Undergraduate Research Opportunities Program

A new 3-credit UROP course can serve as an experiential learning opportunity for students who are interested in deepening their research skills, exercising critical thinking, while strengthening their inter-disciplinary communication skills. This course would be separately offered independent of the present 1-credit UROP course series, but possibly with a pre-requisite in UROP1100. At the end of each academic term, there will be a UROP conference, where students will make presentations describing their UROP projects. Assessment will be based on a teaching portfolio and successful completion of the training modules.

Faculty members from different background can contribute their expertise in guiding students from scientific, social, humanistic, management and technological points of view. It is hoped that the large number of faculty involved in inter-disciplinary projects (such as CRF, AOE, Theme-based) would be willing to supervise the projects.

Given the nature of existing student interest in research (the current size of UROP 2100 is about 100 students every year) and the faculty efforts involved in supervision, we expect the scale of UROP in the Common Core to be similar to the current scale.

Course description

The UROP Common Core course will integrate the objectives of tackling a selected issue of complex and inter-disciplinary nature, exercising critical thinking, and communicating the conclusions effectively. Students registered in the course will join inter-disciplinary research groups supervised by faculty members from different backgrounds. Students will have opportunities to organize a conference communicating their conclusions interactively with members of other research groups.

Initial Proposal

UTOP: Undergraduate Teaching Opportunities Program

The UTOP program will provide an experiential learning opportunity for students who are interested in taking on projects that have a focus on teaching or instruction. This could include coaching groups in project or experiential courses, mentoring, outreach to local high school students, community involvement, helping to design courses, developing course materials and technology, or other similar activities. UTOP students will participate in a series of training modules to help them develop the skills required for development and communication of their teaching projects. Then they will each work on an individual project with a faculty mentor. At the end of each academic year, there will be a UTOP conference, where students will make presentations describing their UTOP activity. Assessment will be based on a teaching portfolio and successful completion of the training modules.

Three elements:

- Core training in pedagogical skills (delivered by CEI), similar to the training program for GTAs.
- Individual UTOP project with a faculty mentor.
- UTOP students will not be a 'GTA-Junior.'

Build on a number of initiatives already underway at HKUST.

- Many examples of students and faculty working to mentor and provide science education to the wider community,
- The use of student coaches and instructors in project-based courses (among others).

Adding the training component, and developing a set of guidelines for UTOP projects, can ensure that all participants have a chance to develop key skills that are useful.

Initial Proposal

UPOP (Undergraduate Practice Opportunities Program) is proposed as a 3-credit common core capstone course, fulfilling the following ILOs:

1) Understand and appreciate the inter-disciplinary nature of a complex issue of societal importance
2) Work and communicate with others having different disciplinary backgrounds
3) Understand and communicate with different stakeholders
4) Demonstrate critical thinking and design thinking and the ability to develop tangible innovations

UPOP will be a structured internship with a faculty mentor. These internships will be outside the student's declared major and with a firm/NGO identified from an approved list. The internship will follow a brief pre-internship training that will be common to all students. Moreover, after the internship period, the student will be evaluated by their supervisor at the firm/NGO, and this evaluation will serve as a component of the grade. They will then organize a "cross-disciplinary" conference for each other, and write a reflection, which will be graded, on their experiences. Students taking UPOP must have completed the Foundations courses in the Common Core curriculum.

Initial Proposal

UCOP: Undergraduate Global Challenges and Opportunities Program

UCOP will consist of a suite of 4 or 5 theme-based projects, from which students can select any one to work on. The themes will relate to the UN Sustainable Development Goals and Global Grand Challenges, with possible themes including Aging, Food, Housing, and Sustainable Production. These themes will be developed by cross-disciplinary teams of HKUST faculty (possibly in line with Research Centers and Institutes such as the Center for Aging Science) and the courses will be co-taught by these faculty, or taught by a different member of the faculty team in every offering. Students will work in cross-disciplinary teams to address the focal Challenge. Emphases will be placed on the process of problem structuring, the identification of relevant data, and communications with stakeholders

Intended Learning Outcomes

After taking the UCOP course, students will be able to:

1. Understand and appreciate the inter-disciplinary nature of a complex, topical issue of societal importance
   - be able to articulate the major disciplines (including the social science, technology, humanistic, and economic/business/sustainable aspects) involved in the selected issue
   - be able to appreciate using concrete examples on how multi-disciplinary approach is critical to understand the problem and show how these interdisciplinary issues interact with each other
   - understand the cultural/ethnic/racial dimension of the issue, if any, and be able to explain them from a historical/cultural background

2. Communicate with others having different disciplinary backgrounds to explore the issue from different perspectives
   - be able to identify the challenges encountered in communicating/discussing with other from different disciplinary backgrounds, and how to circumvent those difficulties
   - be able to articulate the different perspectives provided by people from different disciplines
   - be able to contrast a perspective from a different discipline with the perspective your own discipline holds and articulate what added value or insight one may get having this additional perspective

3. Demonstrate critical thinking and the ability to analyze the issue using appropriate methods, qualitative and quantitative

Attachment 11

Demand Model and Transistional Arrangement

Demand Model and Transitional Arrangement

1

Steady-state Course Demand Model

(to be reviewed for course demand projection for outstanding cohorts under the existing framework and for the new framework)

2019-20 Projected Demand for Common Core Places to be Provided by Each School - Average Total For Fall/Spring [Dated: 2019-03-29]

(UG Intake: 2,723, including 2,034 (local FYFD) + 508 (non-local FY) + 151 (local senior year students) + 30 (other local/non-local senior year students)

10% buffer

6 credits evenly distributed among 5 areas

1/3 : 2/3 split

Even split

4Y Common Core Requirements					Places to be Provided by Schools					
Common Core Areas	Credits	No. of Courses	2019-20 Average Total for Fall/Spring (Course Places)	x1.1	SCIE	SENG	SBM *	SHSS		
								SOSC *	HUMA	CLE
H - SSC	3	1	1,362	1,498					1,498	
H - Non-SSC	3	1	1,362	1,498					1,498	
H - Core Electives	1.2	0.4	545	599					599	
SA - SSC	3	1	1,362	1,498			499	998		
SA - Non-SSC	3	1	1,362	1,498			499	998		
SA - Core Electives	1.2	0.4	545	599			200	399		
S&T - SSC	3	1	1,362	1,498	749	749				
S&T - Non-SSC	3	1	1,362	1,498	749	749				
S&T - Core Electives	1.2	0.4	545	599	300	300				
Core Electives: QR	1.2	0.4	545	599	300	300				
Core Electives: Arts	1.2	0.4	545	599					599	
Sub-total (H, SA, S&T, Core electives)	**24**	**8**	**10,892**	**11,981**	**2,097**	**2,097**	**1,198**	**2,396**	**4,193**	--
QR (Note 1)	3	1	1,362	1,498						
E-Comm	6	2	2,723	2,995						
C-Comm (Note 2)	3	1	1,362	1,498						
Sub-total (QR, E-Comm, C-Comm)	**12**	**4**	**5,446**	**5,991**						
Total for 2019-20 (All Areas)	**36**	**12**	**16,338**	**17,972**						

Common Core Areas	Credits		Note
	Required	Elective	
Humanities (H)	6 *		* 3 credits must be from **H SSCs**
Social Analysis (SA)	6 *		* 3 credits must be from **SA SSCs**
Science and Technology (S&T)	6 *	6	* 3 credits must be from **S&T SSCs**
Quantitative Reasoning (QR)	3		
Arts	0		
English Communication	6 **	Nil	**Must be taken in the 1st year of study
Chinese Communication	3	Nil	
Healthy Lifestyle	Non-credit	Nil	
Total credits required	36		SSCs = School-Sponsored Courses

* As per agreement by SBM and SHSS on 8 Feb 2012, SBM and SHSS will provide one-third and two-thirds of the SA cou

Note 1: This estimated QR demand is expected to be met through courses offered by SCIE and SENG to meet the school [illegible]

Note 2: The split was based on past C-Comm enrollment statistics indicating that the percentage of C-Comm courses offered by HUMA and CLE was roughly 20% and 80% respectively.

2

No. of Active Common Core Courses (as of 2019-20 Summer)

(assuming all the courses can be migrated)

Offering School	Current Area	Proposed Area (subject to Schools' confirmation)	No. of Active Courses (Grouped by Proposed Area)
		Total	263
SHSS	H (67) H+C-Comm (3) H+SA (1)	Humanities	71
SHSS	Arts	Arts	35
SHSS	H+Arts (14) H+Arts+C-Comm (2)	Humanities / Arts	16
SSCI	S&T	Science	16
SENG	S&T (25) Arts+S&T+QR (1) SA+S&T (1)	Technology	27
IPO	S&T (6)	Science / Technology	7
JS	S&T (1)		
SBM	SA (16) SA+S&T (1) SA+QR (1)	Social Analysis	65
SHSS	SA (42) H+SA (1) SA+S&T (1)		
IPO	SA (2)		
JS	SA (1)		
IPO	SA+S&T	Science / Technology / Social Analysis	3
SSCI	QR (4)	Critical Thinking and Data Literacy	9
SENG	QR (4)		
JS	QR (1)		
SHSS	E-Comm	English Communication	2
SHSS	C-Comm	Chinese Communication	11
DSTO	HLTH	Habits, Mindsets, and Wellness	1

3

Timeline for Revamp

Ongoing – Spring 2021
by UCE and CUCE

- Develop scaffolding structure
- Fine-tune area ILOs
- Develop competencies and mappings of competencies
- Develop general criteria, course demand projection, course place distribution by schools, course migration arrangement, system development, etc.

by UCE

Initial screening of existing CC courses

by Schools

Course review by Schools

Phasing out courses

Migrated courses

New courses

Course review by CUCE

Implementation (pilot run / course offering)

Steady stage (2026 afterwards)

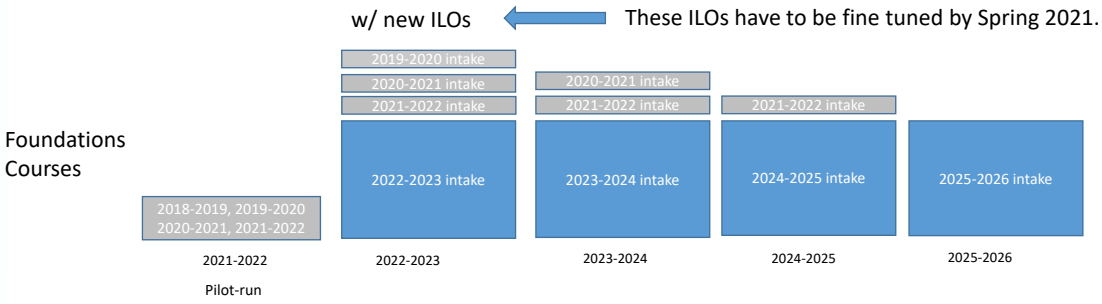
Competency and tracking system

Key milestones for first cohort
Foundations courses: ready by 2022
Broadening courses: ready by 2023
Experiencing courses: ready by 2024

4

In the transition period for Foundations courses

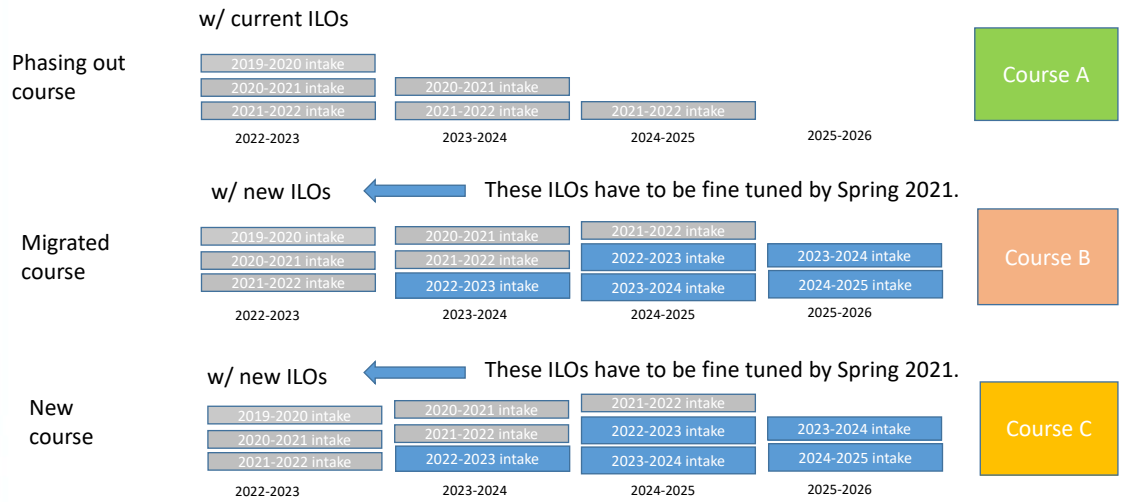
Assume all students under the new framework will take Foundations courses in Yr 1, and that some students under the existing framework (cohorts 2019-2022) are interested in the courses.



5

In the transition period for Broadening courses

Assume all students under the new framework will take Broadening courses in Yr 2-3, and that some students under the existing framework (cohorts 2019-2022) are also taking the migrated courses.



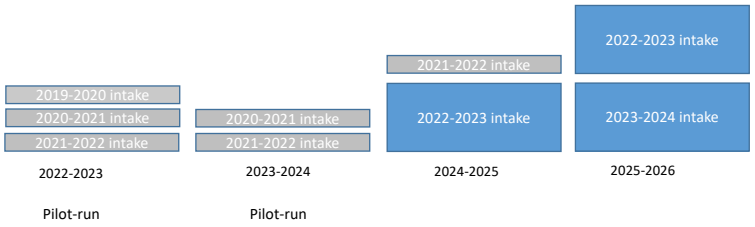
6

In the transition period for Experiencing courses

Assume all students under the new framework will take Experiencing courses in Yr 3-4, and that some students under the existing framework (cohorts 2019-2022) are interested in the courses.

w/ new ILOs ← These ILOs have to be fine tuned by Spring 2021.

Experiencing Courses



7

Attachment 12

Committee on Undergraduate Core Education

Working Group on Review of the Common Core Program

(to be confirmed upon approval of the final proposal on the new Common Core Program framework by the Senate)

Terms of reference

To advise and make recommendations to the Committee on Undergraduate Core Education (CUCE) on the scaffolding structure, common core area intended learning outcomes (ILOs), competencies, and mappings of competencies of the Common Core Program of the University, including, but not limited to:

(a) developing the scaffolding structure in the new Common Core Program framework;
(b) reviewing, and revising if necessary, the ILOs of the common core areas;
(c) developing the desired competencies and the corresponding assessment rubrics; and
(d) developing the principle and mechanism on the mappings of the competencies.

Membership

Convenor:

Academic Director (Undergraduate Core Education)
- Professor Kam Tim WOO

Members:

1. One representative each from the Schools of Science, Engineering, and Business & Management nominated by the Deans
2. One representative each from the Division of Humanities, Division of Social Science and Center for Language Education of the School of Humanities and Social Science nominated by the Dean of Humanities and Social Science
3. One representative from the Interdisciplinary Programs Office nominated by the Director of the Interdisciplinary Programs Office

Co-opted Members:

1. Two visiting faculty from the Minerva Schools at KGI
   - Professor Abha AHUJA, Associate Professor, Natural Sciences
   - Professor Erin KAMLER, Assistant Professor, Arts and Humanities

Resource Persons:

1. Associate Provost (Teaching and Learning)
   - Professor Anirban MUKHOPADHYAY
2. One representative from the Academic Registry nominated by the Academic Registrar
3. One representative from the Center for Education Innovation nominated by the Acting Director of the Center for Education Innovation
4. One representative from the Information Technology Services Center nominated by the Director of the Information Technology Services Center

Term of service

Starting from 4 February 2021 till the completion of the tasks expectedly by June 2021

THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY
Approval of Undergraduate Course

Section 1: Academic Administration [1]

1.1 Catalog

a) Course to be effective from: Academic Year _____ Term _____

b) Department Code[3]: _____ Subject Area[3]: _____ Course Number [4]: _____

Previous Course Code[5]: _____

c) Full Title[6] *(max. 100 characters)*: _____

d) Abbreviated Title[7] *(max. 30 characters)*: _____

e) Course Credits[8]: ◯ Fixed: _____ ◯ Range: From _____ To _____

f) Catalog Description[9] *(word limit = 150)*:

g) Grading Type[10]: ◯ Letter Grades ◯ Distinction/Credit/Pass/Fail ◯ Pass/ Fail
◯ Distinction/Pass/Fail ☐ Others *(please specify):* _____

h) ☐ Prerequisites[11]:

Course Code / Public Exam	Course Title / Exam Subject and Level / Grade attained

i) ☐ Corequisites[12]:

Course Code	Course Title

j) ☐ Exclusions[13]:

Course Code / Public Exam	Course Title / Exam Subject and Level / Grade attained

k) ☐ Co-listing[14]: ☐ Multi-coding[14]:

Course Code	Course Title

l) Other Enrollment Restrictions[15] ◯ No ◯ Yes

☐ Instructor's approval required

☐ Restricted to specified student group(s)
(please specify, e.g. year and program of study): _____

☐ Others *(please specify):* _____

m) Medium of Instruction/Materials[16]: ◯ English ◯ Others, (Pls specify and provide a justification in Section 1.3):

n) Allow course repetition for credit[17]: ◯ No ◯ Yes

1.2 Contribution of course to Programs of Study [Check all appropriate boxes below]

	Program of Study	As		
☐ Major		☐ Required Course	☐ Elective	☐ Prerequisite
☐ Minor		☐ Required Course	☐ Elective	☐ Prerequisite
☐ Common Core				
☐ Others (pls specify):		☐ Required Course	☐ Elective	☐ Prerequisite

1.3 Rationale for Introducing this course and other relevant information [18]

For courses proposed for trial run to be a common core course under the proposed new Common Core Program framework, please check the appropriate box below.

The course is intended to be a common core course under the new Common Core Program framework in the:

☐ Foundations group ☐ Broadening group ☐ Experiencing group

Note: This course will be considered as a regular undergraduate course for course development purposes. Its contribution to the Common Core will only be considered when there is sufficient information as outlined in Section 3 of this form for consideration by the relevant course review panel(s) and the Committee on Undergraduate Core Education (CUCE).

Rationale for introducing this course and other relevant information:

Section 2A: Learning Outcomes and Alignment *(for courses not proposed to be Common Core Courses)*

2.1 Key Course Intended Learning Outcomes *(Should not normally exceed six or eight outcomes)*

Upon completion of this course, students are expected to be able to do the following:

	Course ILOs	**Nature of the learning outcomes** *(A - Knowledge/Content Related; B - Academic Skills/Competencies; C - Others)*
1		
2		
3		
4		
5		
6		
7		
8		

2.2 Contribution of Learning Outcomes to Programs of Study identified in Section 1.2

(Please also complete Section 4.1)

	Program of study 1: _____ **Program ILOs**	**To be achieved through these course ILOs** *(Write CILO-1, CILO-2, etc.)*
1		
2		
3		
4		
5		
6		
7		
8		

	Program of study 2: _____ **Program ILOs**	**To be achieved through these course ILOs** *(Write CILO-1, CILO-2, etc.)*
1		
2		
3		
4		
5		
6		
7		
8		

Section 2B: Additional Information[2] *(for courses not proposed to be Common Core Courses)*

2.3 Planned Teaching & Learning Arrangement

	Teaching & Learning Arrangement	Weekly Scheduled Hours/ Estimated Weekly Learning Hours	Indicate which course ILOs this activity serves to achieve *(Write CILO-1, CILO-2, etc.)*	Additional Information *(optional)*
Face-to face activities	☐ Lecture*			
	☐ Tutorial*			
	☐ Seminar/Small-class*			
	☐ Laboratory*			
	*Does the above scheduled component(s) involve structured active learning activities? [19] ◯ No ◯ Yes *If yes, please specify for each scheduled component, the percentage and the type of active learning involved in the "Additional Information" column.*			
	☐ Others (e.g. fieldtrip, visit, etc.), *pls specify:* _____			
Online activities	☐ Online lecture videos			
	☐ Other online learning tasks, *pls specify:* _____			
	The total learning hours of the course# is equivalent to _____ hours [8] *# including both scheduled instructional hours and hours for self-study activities & assessment*			

- *For course adopting a pedagogic approach other than lecture, tutorial and laboratory, please indicate the pedagogy used:*

◯ Blended learning [20] ◯ Pure online delivery [21]

◯ Experiential learning [22] ◯ Others, *pls specify:*_____

2.4 Planned Assessment Weightings

Assessment Task	Proportion of Final Grade (%)	Indicate which course ILOs this task is to assess *(Write CILO-1, CILO-2, etc.)*	Additional Information *(optional)*
☐ In-class test			
☐ Mid-term test			
☐ Final exam			
☐ Written assignment			
☐ Project report			
☐ Presentation			
☐ Learning portfolio			
☐ Course participation			
☐ Peer evaluation			
☐ Others (e.g. proctored online exam, etc.), *pls specify:* _____			

2.5 Course Duration

◯ 1 term ◯ 2 terms ◯ Others, *pls specify:* _____

2.6 Planned Frequency of Offerings [Check all appropriate boxes]:

☐ Every Fall ☐ Every Winter

☐ Every Spring ☐ Every Summer

☐ No fixed pattern

☐ Other *(pls specify):* _____

2.7 Course outline attached ◯ No ◯ Yes

- **Internationalization:**

Internationalization in a course refers to course content and/or pedagogic approaches which incorporate an intercultural and international perspective. Examples may include:

- Collaboration with overseas institutions to develop and adopt international course content, or to arrange international field trip
- Insertion of international theme as part of the course
- Integrating the course content with international material as examples or case studies
- Elements to provide global diversified perspectives and/or practices around the world

Please briefly list or summarize any component(s) in the course that contributes to internationalizing the curriculum:

2.8 Resources

Request extra resources for teaching this course? ◯ No ◯ Yes

Section 3: Learning Outcomes and Alignment *(for Common Core Course)*

3.1 Course Objectives: Please outline what this course aims to achieve

Alignment with Common Core program goals (Details here): Check the appropriate box(es) below to indicate which Common Core goal(s) this course aims to achieve, and explain briefly how this course would help to achieve the selected Common Core goal(s).

Common Core Program Goals	Explain briefly how this course would serve to achieve this goal
☐ **Broadening horizons**: to allow students to gain intellectual breadth and an appreciation of intellectual achievements across and beyond the main academic disciplines of their studies	
☐ **A passion for learning**: to spark students' passion for learning and enhance their higher order intellectual abilities: analysis and evaluation; judgment and critical thinking; defining and solving problems	
☐ **A lifelong pursuit of excellence**: to provide a foundation for students' life-long development through personal growth, preparation for future careers and opportunities to make contributions to the community	

3.2 Course Intended Learning Outcomes (CILOs) (should not normally exceed 6-8 outcomes)

Upon completion of this course, students are expected to be able to do the following:

	Course ILOs	Weighting (%)
1		
2		
3		
4		
5		
6		

3.3 Course Outline

Week	**Topics**	**Briefly outline what this topic will cover** *(Include reading assignments if available)*	**Indicate which course ILOs this topic is related to** *(Write CILO-1, CILO-2, etc.)*
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			

- **Internationalization:**

Internationalization in a course refers to course content and/or pedagogic approaches which incorporate an intercultural and international perspective. Examples may include:
- Collaboration with overseas institutions to develop and adopt international course content, or to arrange international field trip
- Insertion of international theme as part of the course
- Integrating the course content with international material as examples or case studies
- Elements to provide global diversified perspectives and/or practices around the world

Please briefly list or summarize any component(s) in the course that contributes to internationalizing the curriculum:

3.4 Proposed Common Core Area and Alignment of Course ILOs with Area ILOs

(1) Check one common core area. If the course is proposed to be listed under more than one area, it should contain a significant amount (say 50%) of content related to each of the proposed areas.

(2) Check those area ILOs that this course will contribute to.

Common Core Areas and the Area ILOs	**To be achieved through these course ILOs** *(Write CILO-1, CILO-2, etc.)*	**With reference to the course content/topics, briefly elaborate how these course ILOs can achieve the stated Area ILOs**
☐ **Humanities**		
☐ **H1**: Comprehend and narrate human phenomena from the perspectives of humanities disciplines		
☐ **H2**: Appreciate and articulate diverse human values, feelings, reason and creativity in various forms of expression		
☐ **Social Analysis**		
☐ **SA1:** Analyze key societal and behavioral issues by applying relevant social scientific approaches in different contexts		
☐ **SA2:** Communicate a concern about key societal issues as responsible citizens		
☐ **Science & Technology**		
☐ **ST1:** Comprehend and apply the basic principles of science and methods of scientific inquiry		
☐ **ST2:** Evaluate the social and philosophical implications of scientific discoveries and technological development		
☐ **Quantitative Reasoning**		
☐ **QR1:** Use mathematical models or quantitative methods to formulate, analyze and solve problems that they encounter in their daily and professional lives		
☐ **QR2:** Choose an appropriate method to represent and process a given set of quantitative data and to draw inferences from such data in a systematic and logical way		
☐ **Arts**		
☐ **A1:** Appreciate the theory, history and practice of the arts		
☐ **A2:** Express themselves through various art forms or media		
☐ **English Communication**		
☐ **E1:** Use English to achieve communicative purposes appropriate to the academic and social context		
☐ **Chinese Communication**		
☐ **C1:** Students with Chinese backgrounds will be able to use Putonghua and Standard Written Chinese to achieve communicative purposes appropriate to the context, be it academic, social or professional		
☐ **C2:** Students with non-Chinese backgrounds will be able to achieve basic communicative purposes in Putonghua		
☐ **Healthy Lifestyle**		
☐ **HL1:** Recognize the importance of physical, psychological, social, and occupational wellness		
☐ **HL2:** Develop strategies to manage their lives		
☐ **HL3:** Acquire new sports skills and maintain a higher level of physical wellness through a variety of activities		

3.5 Planned Teaching and Learning Arrangement

a) Planned Class Size: _____

b) Teaching Activities:

Teaching and Learning Arrangement		Weekly Scheduled Hours/ Estimated Weekly Learning Hours	Typical Class Size	Indicate which course ILOs this teaching activity serves to achieve *(Write CILO-1, CILO-2, etc.)*	(1) Briefly outline what the course instructor/students will do in this teaching activity; and (2) explain in what ways this activity can achieve the stated course ILO
Face-to face activities	☐ Lecture*				
	☐ Tutorial*				
	☐ Seminar/Small-class*				
	☐ Laboratory*				
	*Does the above scheduled component(s) involve structured active learning activities? [19] ◯ No ◯ Yes *If yes, please specify for each scheduled component, the percentage and the type of active learning involved in the last column above*				
	☐ Others (e.g. fieldtrip, visit, etc.), *pls specify:* _____				
Online activities	☐ Online lecture videos				
	☐ Other online learning tasks, *pls specify:* _____				
The total learning hours of the course* is equivalent to _____ hours [8] ** including both scheduled instructional hours and hours for self-study activities & assessment*					

- *For course adopting a pedagogic approach other than lecture, tutorial and laboratory, please indicate the pedagogy used:*

◯ Blended learning [20] ◯ Pure online delivery [21]

◯ Experiential learning [22] ◯ Other, *pls specify:*_____

Additional information about how these teaching activities help to deliver the course ILOs

3.6 Planned Assessment Tasks

Assessment Task	**Proportion of Final Grade** (%)	**Indicate which course ILOs this task is to assess** *(Write CILO-1, CILO-2, etc.)*	**(1) Briefly outline what students are required to do in this task; and (2) explain in what ways this task can assess the stated course ILO**
☐ In-class test			
☐ Mid-term test			
☐ Final exam			
☐ Written assignment			
☐ Project report			
☐ Presentation			
☐ Learning portfolio			
☐ Course participation			
☐ Peer evaluation			
☐ Others (e.g. proctored online exam, etc.), *pls specify:* _____			

Additional information about how these assessment tasks help to assess students' achievement of the course ILOs

3.7 Textbook/Required Learning Materials

	Details *(title, author, publisher, publication year, web address etc.)*
1	
2	
3	

3.8 Recommended/Supplementary Learning Materials

	Details *(title, author, publisher, publication year, web address etc.)*
1	
2	
3	

3.9 Instructor / Course Coordinator

Role	**Name**	**Department**	**Position**
☐ Coordinator			
☐ Instructor			

3.10 Course Duration

◯ 1 term ◯ 2 terms ◯ Others, *pls specify:* _____

3.11 Planned Frequency of Offerings [Check all appropriate boxes]:

- ☐ Every Fall
- ☐ Every Winter
- ☐ Every Spring
- ☐ Every Summer
- ☐ No fixed pattern
- ☐ Other *(pls specify):* _____

3.12 Resources

Request extra resources for teaching this course? ◯ No ◯ Yes

Details about the extra resources required:

Have these extra resources been secured? ◯ No ◯ Yes

Section 4: Development, Concurrence and Approval

4.1 Contribution to the Program Learning Outcomes

(To be completed by EACH of the program(s) of study noted under Section 1.2)

☐ The course contributes to this Major/Minor* Program: _____

(Delete as appropriate)*

☐ The relevant **program learning outcomes are attached**.

☐ On behalf of this program of study, I confirm that the course will contribute appropriately to overall program learning outcomes.

	Position / Name:	Signature	Date
Program Director / Head of Department:			

☐ The course contributes to this Major/Minor* Program: _____

(Delete as appropriate)*

☐ The relevant **program learning outcomes are attached**.

☐ On behalf of this program of study, I confirm that the course will contribute appropriately to overall program learning outcomes.

	Position / Name:	Signature	Date
Program Director / Head of Department:			

4.2 Approvals

Department/Program unit level Recommendation

	Position / Name:	Signature	Date
☐ Offering Department/Program Unit: *(Please specify unit):* _____			
☐ Recommending School/IPO: *(Please specify):* _____			

School-level Concurrence

	Name of School/Unit	Position / Name	Signature	Date
☐				
☐				
☐				
☐				
☐				

Notes:

(1) Academic Administration
Information in these sections will be considered by the Committee as a basis for approval of the proposed new course.

(2) Additional Information
Data in this section does not require approval of the Committee. It is presented to the Committee only as supplementary information to assist the Committee in evaluation of the course.

(3) Department Code and Subject Area
They refer to the offering department and the discipline of the course. For instance, a Global Business course should put "SBM" in the field of "Department Code" and "GBUS" in "Subject Area".

(4) Course Number
1xxx = an introductory course; 2xxx = an intermediate course; 3xxx/4xxx = an advanced course / course for specialist study

(5) Previous Course Code
Applicable only if the course had been offered before as a special topics course.

(6) Full Title
The title will appear in all official documents. Max. length = 100 characters (spaces included)

(7) Abbreviated Title
Should be a direct abbreviation of the title. An abbreviated title must be provided when the full title exceeds 30 characters (including space).

(8) Course Credits and Total Learning Hours
In the assignment of credits to courses, reference should be made to the 'benchmark' assignment of 3 credits for courses with 3 instructional hours per week for a full term, and requiring 2 hours per week of self-study activities for each instructional hour. This benchmark implies a total of 40 to 50 learning hours per credit. For this calculation, 'instructional hours' means all required, scheduled hours of instruction.
It should be noted that the hours for all scheduled components and other teaching activities may not add up to the total learning hours of a course, for the reason that students may be expected to engage in other self-study activities and/or assessment that are not listed as teaching arrangements under Section 2.3

(9) Catalog Description
Provide an outline of the course in about 30 words (3 lines) (Max word count = 150). See the current issue of Course Catalog for reference formats..

(10) Grading Type
The default grading type for courses is letter grades. If a course adopts a grading type other than letter grades, such as PP, P/F or DI/PA/F, it will be specified in the course description for easy reference by students.

(11) Prerequisite(s)
A prerequisite may be an attainment in public examination or an existing/previously offered course (including special topics courses). The prerequisite must be obtained, or taken and passed before a student may register for credit in this (proposed) course.

(12) Corequisite(s)
A corequisite is a course which must be taken prior to, or at the same time as, the specified course.

(13) Exclusion(s)
Students who have achieved a specified attainment in public examinations or have completed, or are registered in, a specified course may not register for credit in an excluded course.

(14) Co-listing and Multi-coding
Co-listed courses are two or more courses that share the most or all lectures and other learning activities, but differ at least partially in assessment schemes or assignments under each of the courses. Proposal that involves co-listing request should be accompanied by a separate, duly completed form for co-listing and submitted to the CUS Secretariat.
A multi-coded course is a single course that is offered under two or more course codes with identical course content and assessment scheme. Proposal that involves multi-coding request should include in section 1.3 the necessary supporting information, i.e. (i) rationale for the multi-coding request including evidence that the course has sufficient elements in the subject area of the new code requested, and that the requested new code could benefit the students by reflecting their affiliation with a particular discipline; and (ii) confirmation that students registered under different codes of the course are treated identically with only one set of course content and assessment arrangement..

(15) Other Enrollment Restrictions
Enrollment restrictions are set to restrict the class enrollment to a specified group of students (e.g. "For Science students in their second year of study", "For GBUS students only", "For students with instructor's approval only") on top of prerequisites/corequisites. For most cases, departments/units do not need to set fixed enrollment restrictions and tick the box "No". They can work out a "reserved quota" with ARR, Academic Registry per each time of course offering to prioritize certain groups of students (e.g. students studying relevant major or minor programs).
If enrollment restrictions are set, please tick the box "Yes" and specify what enrollment restrictions are. In case of changes to the enrollment restrictions, a course change proposal should be submitted.

(16) Medium of Instruction/Materials
Exceptions to the general University policy that English is the medium of instruction will only be permitted when the courses are related to the area of Chinese studies and are approved by the School of Humanities and Social Science. Courses approved to be taught in Chinese will carry a [PU] or [CA] notation in the course description, which indicates the spoken language used in teaching: [PU] stands for Putonghua; and [CA] for Cantonese.
Courses marked with a [C] in the catalog description are not taught in Chinese but may require students to read materials in Chinese.
Some courses may use different medium of instruction/materials, either in Chinese or English, for different sections. They will be denoted by a combination of [CA], [PU], [C] and [EN]. Students are expected to check the medium of instruction/materials to be used before course enrollment.

(17) Allow course repetition for credits
In general, students who have passed a course may not repeat the same course. However, for some courses such as special topics, seminars, directed studies, service learning, study trips, internships and so forth, departments may propose that the course may be repeated for credit.

(18) Rationale for introducing this course and other relevant information
Other relevant information includes, *e.g., justification for using language other than English as the medium of instruction/materials, the reason for allowing students to repeat the course for credits, rationale for requesting multi-coding arrangement.*

(19) Structured Face-to-face Active Learning Activities

Structured face-to-face active learning activities generally include in-class small group discussions, small group problem solving sessions, presentations with peer-evaluation, hands-on prototype building and design, and other learning activities where students are engaged in very active learning modes while the instructor(s) and TA(s) play the facilitator role. Tutorials where instructors or TAs teach problem solving and give examples on the board, or laboratory sessions with very procedural step-by-step experiments in which students note observations and record data, and complete a lab report after the lab are not considered as structured face-to-face active learning.

(20) Blended Learning *(subject to the final wordings of definitions to be adopted in the UAA exercise)*

At HKUST, blended learning usually refers as a blend of online and face-to-face teaching, where the online component may be in form of online video lectures/demonstrations, and/or other online activities. In accordance with the guideline approved by the Senate in April 2015, the total hours of face-to-face teaching activities (such as classroom, lab and tutorial) of a blended learning course should be at least 50% of such activities as offered in ordinary in-class mode.

For this type of course, concurrence should be sought from the Center for Education Innovation.

(21) Pure Online Delivery

For credit bearing online courses, undergraduate students are allowed to use at most 6 credits earned from these courses to count towards the graduation requirements, according to the policy approved by the Senate in June 2017.

For this type of course, concurrence should be sought from the Center for Education Innovation.

(22) Experiential Learning *(subject to the final wordings of definitions to be adopted in the UAA exercise)*

Experiential learning is a process which students are involved in the hands-on experiences and through which students can develop knowledge, skills, and attitudes. Learning considered "experiential" contains the following elements:

- Authentic and real-life experiences for students to engage intellectually, emotionally, socially, and/or physically
- Opportunities for students to pose questions, investigate, experiment, take initiative, make decisions, and be accountable for the results
- Reflective processes that lead to analysis, critical thinking, and synthesis
- A well-designed learning experience that allows students to learn from natural consequences, mistakes, and successes

For this type of course, concurrence should be sought from the Center for Education Innovation.