

**Approval of an existing undergraduate course to be delivered
through blended learning or pure online delivery**

Where an existing HKUST UG course is to be delivered through blended learning (usually referred as “blended online and on-campus mode”) or pure online delivery, course change proposal involving “Adoption of mode of delivery other than lecture/ tutorial/ laboratory”, with concurrence sought from the E-learning Taskforce under CEI, should be submitted to the CUS for approval

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|---------------------|------------------------------------|
| Course code | ISOM3260 |
| Title of the course | Database Design and Administration |
| Credits | 4 |

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|--|--|
| Proposed mode of delivery | <input checked="" type="checkbox"/> Blended Learning <input type="checkbox"/> Pure online delivery |
| <p>The blended learning proposal of ISOM3260 was approved by the Committee for Teaching and Learning Innovation (CTLI) in Dec 2019. The course development was kickstarted in Jan 2020 with the support from CEI. The course development will be completed by Dec 2020. The course team, consists of two instructors – Prof. James Thong and Dr. Muller Cheung, is going to launch the course in Blended Learning mode in Fall 2021.</p> <p>Detailed description of the mode of delivery and how the component(s) are delivered:</p> <p><u>Online activities</u></p> <ol style="list-style-type: none"> Readings Readings include in-class pre-reading materials, lab manuals and selected chapters of the software documentation Videos (including concept videos and lab/practical videos) and online quiz Concept videos illustrate the database concepts by animations, visuals with appropriate annotation with narrations. The database concepts introduced in the concept videos will be further elaborated through the illustration and demonstration of database software and tools in the practical videos. The videos shall be produced by screencast with narration. Students are expected to watch the videos and grasp the basic skills for the coming laboratory session. We highly appreciate interactive videos with in-video questions and subtitles. <p>Students will be required to take an online quiz each week, after going through the readings and videos. The quiz will be related to the online materials of that week. Students will submit the answers through Canvas Assignments before the coming in-class session.</p> <p><u>Offline activities</u></p> | |

1. In-class session

After discussing and evaluating the review questions from the online quizzes, students are expected to participate in groups to design databases through diagramming and other exercises. More in-depth discussion on the database design and administration will be covered.

2. Laboratory session

Students will design, develop and manage databases and build database applications using the CASE tool, SQL management tools and the database development software. Instructor will recap the lab/practical videos and demonstrate more advanced database design and programming skills. Students will then be given no less than 50% of the laboratory time for the group projects. Instructors will provide technical support and scaffold student groups to refine the database design and database application of the group projects. Each week, the laboratory instructor will give instructions to students regarding the tasks to be completed during the lab session, and this will be part of the Lab Submission. The laboratory sessions and the lab/practical videos are crucial for students to complete a semester-wide database development project.

The Midterm and Final examinations will cover online materials, in-class materials, and the materials discussed in laboratory sessions.

| Planned Teaching & Learning Arrangement | | | |
|--|--|---|---|
| <i>Teaching and Learning Arrangement</i> | | Total Scheduled Hours/ Estimated Total Learning Hours | |
| | | Existing | Revised |
| Face-to-face activities | <input checked="" type="checkbox"/> Lecture | 12 classes * 2 hours <u>24 hours</u> | 12 classes * 2 hours <u>24 hours</u> |
| | <input checked="" type="checkbox"/> Tutorial Note: Tutorial hours are reduced because group activities are now conducted during lectures. | 12 tutorials * 1 hour <u>12 hours</u> | - |
| | <input type="checkbox"/> Seminar/Small-class | - | - |
| | <input checked="" type="checkbox"/> Laboratory | 12 labs * 2 hours <u>24 hours</u> | 12 labs * 2 hours <u>24 hours</u> |
| | Others (e.g. fieldtrip, visit, etc.), | = | = |

Attachment to
Undergraduate Course Change form
involving adoption of mode of delivery other than lec/tut/lab

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|--|---|---|--|
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| | | | |
| | Subtotal ⁽¹⁾ | 60 | 48 |
| Online activities | <input checked="" type="checkbox"/> Online lecture videos and practical/lab videos | - | 12 weeks * 1 hour <u>12 hours</u> |
| | <input checked="" type="checkbox"/> Other online learning tasks, pls specify: Weekly online quiz | - | 12 quizzes * 0.5 hour <u>6 hours</u> |
| | <input checked="" type="checkbox"/> Readings | 12 weeks * 0.5 hour <u>6 hours</u> | 12 weeks * 0.5 hour <u>6 hours</u> |
| | | | |
| | | | |
| Expected time for self-study and assessment | <input checked="" type="checkbox"/> Required assignments | Group Project 13 weeks * 4 hours <u>52 hours</u> | Group Project 13 weeks * 4 hours <u>52 hours</u> |
| | <input checked="" type="checkbox"/> Tests and examinations | Midterm: 1.5 hours Final: 2.5 hours <u>4 hours</u> | Midterm: 1.5 hours Final: 2.5 hours <u>4 hours</u> |
| | <input checked="" type="checkbox"/> Expected time for self-study and preparation | Review of course materials 13 weeks * 2.5 hours <u>32.5 hours</u> | Review of online materials: 13 weeks * 1 hour Review of class exercises 13 weeks * 1.5 hours <u>32.5 hours</u> |
| | Total learning hours commitment | 154.5 | 160.5 |

| Planned Assessment Weightings | | |
|--|-------------------------------|---------|
| Assessment Tasks | Proportion of Final Grade (%) | |
| | Existing | Revised |
| <input type="checkbox"/> In-class test | | - |
| <input checked="" type="checkbox"/> Mid-term test | 25 | 20 |
| <input checked="" type="checkbox"/> Final exam | 40 | 35 |
| <input type="checkbox"/> Written assignment | | - |
| <input checked="" type="checkbox"/> Project report | 30 | 30 |
| <input type="checkbox"/> Presentation | | - |
| <input type="checkbox"/> Learning portfolio | | - |
| <input type="checkbox"/> Course participation | | - |
| <input type="checkbox"/> Peer evaluation | | - |
| Others (e.g. proctored online exam, etc.), <i>pls specify:</i> <input checked="" type="checkbox"/> Lab submission Weekly online quiz | 5 | 5 10 |
| Total | 100 | 100 |

Remarks:

- (1) For courses to be offered in blended learning mode, the total hours of face-to-face activities (such as classroom, lab and tutorial) should be at least 50% of such activities as offered in ordinary in-class mode.
- (2) A limit will be set on the number of credits earned from pure online courses that could be used to satisfy the graduation requirements of a degree program. At the undergraduate level, the limit is 6 credits and this does not apply to credits obtained through credit transfer as they are handled by existing credit transfer procedures of the University.
- (3) Undergraduate students taking credit bearing online courses must be assessed by rigorous assessment such as proctored examinations.