Laboratory and Tutorial Schedule
<Spring Semester 2021>

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Tutorial</th>
<th>Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tuesday, 12:00 – 12:50</td>
<td>Thursday, 12:30 – 16:20</td>
</tr>
<tr>
<td>Venue</td>
<td>*Zoom</td>
<td>*Zoom + Optional hands-on session on selected dates in the lab</td>
</tr>
</tbody>
</table>

*Due to the COVID-19 pandemic, tutorials and laboratory sessions will be offered via Zoom meetings. If the pandemic situation improves, optional hands-on sessions will be offered and details will be introduced during the course introduction session. Registration for the optional hands-on sessions is required and failure to show up after registration will result in mark deduction. Information regarding the registration will be provided in due course.

Course Introduction
16 February Tutorial

Exercise 1 Microscopy
23 February Tutorial
25 February Laboratory

Exercise 2 Cell Culture
2 March Tutorial
4 March Laboratory

Exercise 3 Cell Fractionation by Differential Centrifugation & Identification of Mitochondrial Fraction
9 March Tutorial
11 March Laboratory

Exercise 4 Membrane Permeability
16 March Tutorial
18 March Laboratory
Exercise 5  Activation of β-galactosidase gene in the Transformed *E. coli*
23 March  Tutorial
25 March  Laboratory

Optional hands-on session: 12:30 – 16:20
(Subject to pandemic situation. Interested students are required to register for either one of the sessions below)

8 April  Laboratory
15 April  Laboratory
22 April  Laboratory
29 April  Laboratory

Final Examination
****Schedule and format to be confirmed****
**Distribution of Marks**

The course will be in **P/F grade**. The grade for this course will be determined as follows:

<table>
<thead>
<tr>
<th>Method of Assessment</th>
<th>Contribution to Final Grade (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutorial Quizzes</td>
<td>18%</td>
</tr>
<tr>
<td>Laboratory Write-up</td>
<td>30%</td>
</tr>
<tr>
<td>Final Take-home assessment</td>
<td>52%</td>
</tr>
</tbody>
</table>

**Tutorial Quizzes**
Good practice always is to study the laboratory manual before attending the online lab sessions and watching the instructional videos. Good preparation is encouraged and is assessed by quizzes, which are held in the tutorial using the Canvas quiz function. *The quiz is on a sudden and random basis* and will consist of multiple-choice questions to access the experimental details and theory of that laboratory session.

**Laboratory Write-up**
Refer to Page iv-vi for details

**Final Examination**
Please note the details of the actual final examination format is yet to be confirmed. In principle, it will be a written examination to test your understanding of the principles and techniques studied in the experimental exercises. It will be very important for you to be able to apply those principles you learnt in the experiments. The date and venue of the written examination will be announced later.
Laboratory Write-up
(Laboratory Report and Worksheet)

Students are required to submit a Laboratory Write-up, which is either in the format of a Laboratory Report or a Worksheet, for each experiment. Therefore, a total of five write-up will be submitted by each student, as follows,

<table>
<thead>
<tr>
<th>Format of write-up</th>
<th>Involved Exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Report</td>
<td>Exercise 1 and 2</td>
</tr>
<tr>
<td>Worksheet</td>
<td>Exercise 3, 4, 5</td>
</tr>
</tbody>
</table>

The requirement of Laboratory Report

It is essential in science to keep a good record of your experimental results and you will learn the required skills of writing a proper laboratory report throughout this course. All the essential components of a full laboratory report are expected, these include:

*Title and Author* – Give the Name, Student Number, Group Number / Session, Experimental Date, and the Number and Title of the Exercise concerned.

Below is an example for you as reference:

Course code: LIFS 2240  
Course name: Cell Biology Laboratory  
Student name: Chan Siu Ming  
Student ID: 10888888  
Exercise 1: Microscopy  
Date of experiment: 25 Feb 2021

*Introduction* – A concise paragraph stating the objectives of the experiment.

*Procedure* – Do not copy the entire procedure from the lab manual, you only need to write down the page numbers of the lab manual.

*Results* – A clear record of the data you collected from the practical sessions, in the format of table, chart, and figure, if applicable. Proper title and labels should be provided.

*Discussion* – Explain and interpret your results. Attempt to explain any negative result or experimental error that you might have.
Requirement of Worksheet

The worksheet is in a question-answer format. *The question sets would be available on Canvas after the involved laboratory or tutorial session.*

Similar to the laboratory report, in each worksheet, you are also required to put down your Name, Student Number, Date, and the Number and Title of the Exercise concerned. After you have provided all the above information, proceed directly to provide answers to the questions and problems of the worksheet. For the worksheet, you are NOT required to rewrite the introduction and procedure.

Report and Worksheet Marking

Teaching assistants will be responsible for collecting and marking all the laboratory write-up on an exercise.

Plagiarism

All write-up work MUST BE your own work. It is essential that you write the reports IN YOUR OWN WORDS. YOU MUST NOT COPY from your friends, from the manual, from the lecture notes, from a previously submitted report, from the textbook, or the internet.

Academic integrity and honesty are key values at HKUST. A student who is found cheating (i.e. making up or adjusting data); or to has committed plagiarism (i.e. presenting work which is not their own and originates from other sources as if it is their own) will receive ZERO MARK for that lab report.

If you are found to have committed plagiarism in more than one report, you will receive a “fail” in the course with an X recorded in your transcript.

Plagiarism includes but is not limited to:

- using a graph or figure prepared by another student in your lab report;
- asking another student to let you read his or her lab report and then using what he or she has written as the basis for your own report writing;
- working together with a partner on writing the reports, resulting in two identical or very similar reports;
- failing to give credit (a properly formatted citation and reference) for any facts or ideas which are actually not originated from your own.
Laboratory Report and Worksheet Submission Schedule

You should submit “laboratory write up” (report or worksheet) on the following date and to Canvas:

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Format of Lab Write-up</th>
<th>Submission Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Laboratory Report</td>
<td>4 Mar</td>
</tr>
<tr>
<td>2</td>
<td>Laboratory Report</td>
<td>11 Mar</td>
</tr>
<tr>
<td>3</td>
<td>Worksheet</td>
<td>18 Mar</td>
</tr>
<tr>
<td>4</td>
<td>Worksheet</td>
<td>25 Mar</td>
</tr>
<tr>
<td>5</td>
<td>Worksheet</td>
<td>1 Apr</td>
</tr>
</tbody>
</table>

*Format*
All laboratory reports and worksheets must be submitted in PDF format.

*Late Submission Penalty*
Marks will be deducted for late submissions: 10% of the final mark per day after the final deadline.