A Group Learning Exercise

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Participation in the group learning exercise constitutes part of the assessment. It will take place over the Discussions in Canvas where all students learn together, solve problems and discuss difficulties.

The objectives of this exercise are to promote self-learning, enhance and test your ability to seek, find, and learn from internal and external sources; to consider interesting problems, to think about them and solve them, to ask questions, to demonstrate initiative and creativity and to communicate with your classmates, tutors and lecturer. You will be assessed based on the intellectual and educational contributions you make to the group learning exercise by presenting and solving problems, showing initiative and creativity, writing well, asking questions, and helping others with their problems.

You have the freedom to choose the problems you work on, but they must be related to the curriculum. One source of problems is the Textbook (classnotes.pdf) available online in Canvas/Modules/Testbook. It is also available in

http://www.ee.cityu.edu.hk/~zukerman/classnotes.pdf

It includes a large collection of problems that you are encouraged to solve. Many of the problems have detailed guides that you can learn from. Also, there are tutorials and other assignments posted on Canvas provided throughout the semester that you are encouraged to solve and/or discuss. You can also insert keywords based on the topics discussed in the lectures in Google and find many available external resources that can provide you with problems that you can solve and broadcast on the Canvas under Discussions. See for example:

http://web2.uwindsor.ca/math/hlynka/qbook.html

that provides you with a rich set of related books. By reading other books, you enhance your understanding of the material taught, obtain various viewpoints, and of course, find interesting and new problems to work on and contribute to group learning.

You are expected to contribute to group learning through the discussion board every semester week. The semester weeks are clearly and explicitly defined in Canvas/Discussions. Note that not all semester weeks have seven days. Week 1 starts at the time of the start of the first lecture and continues for seven days. The semester weeks 2-4 have a certain flexibility that allows students who do not work on the Chinese new year to still contribute to group learning every semester by including additional working days in semester week 4.
Note also that the semester weeks 5-13 are considered according to the CityU Calendar. See

https://www.cityu.edu.hk/arro/calendar.asp?sem_id=129

Students who submit nothing during the semester but submit a large amount of material at the end of the semester will obtain lower marks relative to students that submit the same amount of work continuously throughout the semester. You have to demonstrate that you are learning continuously throughout the semester. Post solutions on the Discussion Board, pose questions, participate in discussions, reproduce others' simulations or numerical results, or help others, at least once during every semester week.

You are encouraged to help and encourage other students, but if you only write a comment like "Great job Joe!!", you will not receive any credit. You must demonstrate self-learning and/or intellectual contribution to Group Learning.

You may work with your colleagues. However, each student is responsible for posting his/her own work with credit given to other students for the work and their ideas. At the end of the semester, submit all your work individually as your own project. Again, credit should be given to other students from whom you have learned and/or used their work and/or ideas. Working in a group has clear advantages for students learning from each other. Furthermore, different people have different skills and abilities, and the final result will be better if all members of the group do the best they can and contribute towards the final outcome.

The assignments that you choose may involve computations and/or simulations that lead to numerical results. In such assignments, there are normally two issues that you must give very special attention to:

1. Make it very clear what input data you used to obtain the results so that your work is reproducible by others.
2. After you obtain the results, provide an explanation, interpretation and implications of the results.

Having your work on Canvas, allows others to comment on your results. The feedback that you receive helps you improve your work. You can also read in Canvas feedback given to other students and learn from it. This will help you improve the quality of your work.

You are encouraged to learn from work submitted by others posted in Canvas. Again, if you use the ideas of others, **it is very very important that you acknowledge the source**. Consultation is also very much encouraged, but copying the work of others and passing it on as your own is not allowed. If you receive help from other students (and that includes using their work that was submitted earlier) you must acknowledge them as any other source of information that you have used.

Please read the University guidelines on Plagiarism on:
http://libguides.library.cityu.edu.hk/content.php?pid=81441&sid=606027
And follow the rules carefully.

When you post in Canvas/Discussions, please select an appropriate existing Discussion (the appropriate semester week) and click the Reply button to submit your work.

Assessment

Assessment will be based on: **self-learning, novelty, initiative, innovation, accuracy, contribution, academic ethics, continuous participation and presentation.**

There are many ways you can demonstrate self-learning. Examples include problem-solving, programming, sharing relevant information you find online, asking and answering questions, or providing meaningful comments on the course material or on work by other students. In most cases, a student that presents a solution to a new problem demonstrates novelty. A student will not demonstrate novelty in cases where the student has learned the solution from books or other sources, or has seen or solved the same problem previously. If a student finds the solution elsewhere, a reference should be provided. Academic ethics requires that you cite your sources. If you copy text from somewhere, use quotes as well as a citation. If you paraphrase text written by others if you use someone else's idea, cite your sources. If a cited source is outside the Book (classnotes.pdf), the student will also score points on initiative. If one student solves a problem and the solution is based on the right idea but has an error, the student may score on novelty but may lose mark on accuracy.

If you work on a problem, and someone else posts it before you, you may still score highly on initiative and contribution by considering new aspects of the problem. Change parameters plot curves showing interesting properties of the results and of the accuracy of the results. In general, in simulations, more sampling increases accuracy – demonstrate it numerically using confidence intervals. In simulations or in other assignments that involve a computer program please submit the program itself **including full documentation**. You may submit the program first and then add documentation. In this way, other students may run your program trying to reproduce your results, and if they are not successful, they may provide you with feedback on it. Such feedback (if valuable) will be counted towards contribution. If the first student to publish a program does not provide full documentation, others may improve the documentation (by resubmitting the original program + their own documentation) and score points. You can also score points on contribution by translating software from one computer language to another. If you write a simulation, you **must** use **confidence intervals**. You are not limited to any particular computer language. You can choose the one you are most familiar with, or you can choose to learn a new computer language. The documentation should explain everything that you do. You must define all variables. All input and output parameters must be clearly defined for every procedure/subroutine. If you use what you have learn to produce a product for the benefit of the society, you score on innovation. For example, you may produce an online tool that can be used by others online based on what you have learnt in the course.

You should contribute to the Discussion Board in all semester weeks during the Semester. If you have a justification for not contributing to group learning, e.g., late registration or being ill, you must notify the course leader and provide a justification (e.g. a medical certificate) for the missing days. Otherwise, marks will be deducted for continuous participation. Continuous participation in the Discussion Board is important for learning. One way to score points on initiative is to pose new problems, especially if the problem has merit and many other students try to solve it and improve learning from the process. It goes without saying that if you present the results clearly you score on presentation. However, the presentation is not only about English. Make sure all variables, models, and solution approaches are well-defined and easy to read. As mentioned above you always must provide sufficient information about the data so that your work is reproducible by others. You will have many opportunities to demonstrate your effort, skills and abilities.

The assessment of Group Learning will be based on your work during the semester posted on Canvas/Discussions (80%) and on a final report (20%). Your final report assessment is normally based on following final report submission instructions, but poor performance in submissions to Canvas/Discussion during the semester may affect your final report assessment. For example, if you submit nothing to Canvas/Discussion during the entire semester, even if you submit a nil report, your Group Learning Assessment will be zero.

It is important that you start the discussions/assignments on day one. You are expected to improve the assignments based on feedback that you receive. You are expected to comment on work done by others and help them to improve their work. Students, who work constantly and consistently, submit, improve and provide feedback to others will be rewarded.

Also start working on your final report on day one. As discussed below, your final report should include all your posts during the semester and the dates when you input these posts. You must keep a record of your contributions from day one including the dates and times that you posted them as the dates may not be available for you on Canvas and the reports may be hard to find. It is recommended to start working on your final report on day one and every time you post material on Group Learning Canvas Discussions you also copy it to your report. In this way, most of your final report will be ready at the end of the semester, so you do not need to spend much time on it then. I do not specify a special format for the submissions throughout the semester as well as for the final report. The format is up to

you. You have complete freedom to choose how you present your work, but please submit well-written and well-presented material, and remember that presentation is an assessment criterion.

The Final Report

In your final report, you provide a complete record of all your contributions to Group Learning through Canvas Discussions throughout the semester. In the report, you copy and paste material that you have contributed to group learning throughout the semester. As mentioned above, you should prepare your final report throughout the semester as you submit your work to Canvas/Discussions to avoid difficulties at the end of the semester.

The first page of the final report must include the subject name and number and Student Name and Student ID. Also, on the first page (and maybe also the second page) each student must provide self-assessment + justification starting with: "I expect a mark of x in Group Learning because ..."
This is not a trivial assignment. You have an opportunity here to sell and take credit for your work. Point out the work you have done throughout the semester which you submitted to the Discussion Board. Remember, hard work is not a sufficient reason for a good mark – results are. Emphasize what you have achieved in terms of self-learning, novelty, initiative, accuracy, contribution, presentation, academic ethics and continuous participation pointing out intellectual contribution, analyses, interpretation and discussion on implications of the results. Mention cases where you help other students improve their work and especially mention your achievements above the call of duty if, for example, you have found an original solution to a problem that is more elegant than the one you learned in class. It is very important that you argue well what you have done that justifies a higher mark. You also must include in the first (or maybe second) page of your report a table that indicates clearly during which semester week you submitted posts on the discussion board. The table will be of 13 lines for each semester week, and in other columns, you provide the number of posts and the date and time of each of the posts.

Important: This means that you must know the dates and times of the different posts when you submit the final report. Therefore, every time you post your work in Canvas-Discussion you must include the date and time of the post. Do not rely on Canvas to record these for you!!!

The table will demonstrate continuous participation throughout the semester which is part of the assessment. Here is an example of such a table:

Week	Number of Posts	Dates and (times)
1	3	15-1-2025 (14:30), 16-1-2025 (15:30), 17-1-2025 (11:30),
2	3	20-1-2025 (11:30), 22-1-2025 (10:30), 23-1-2025 (11:00)
3	2	27-1-2025 (11:30), 29-1-2025 (17:30)
4	1	11-2-2025 (11:30)
5	2	18-2-2025 (15:00), 20-2-2025 (11:30)
6	4	26-2-2025 (16:30), 27-2-2025 (11:30), 28-2-2025 (11:30), 29-2-2025 (12:30)
7	3	4-3-2025 (11:30), 5-3-2025 (9:30), 6-3-2025 (10:30)
8	2	10-3-2025 (11:20), 11-3-2025 (11:30)
9	1	18-3-2025 (16:30)
10	3	25-3-2025 (16:30), 25-3-2025 (17:30), 26-3-2025 (18:20
11	2	2-4-2025 (10:10), 3-4-2025 (11:30)
12	2	8-4-2025 (12:50), 9-4-2025 (15:50),
13	2	15-4-2025 (18:30), 16-4-2025 (15:30)

You must submit the final report online no later than 11:59 PM (23:59), 27 April, 2025. Delay of up to 24 hours will result in a 50% mark reduction on the report. Further delay will result in a mark of 0 on the report.

Submissions made to Group Learning after 27 April, 2025, will not be considered for assessments. Also, such submissions are not possible on Canvas.

Do well and enjoy the Group Learning Exercise.

Moshe