COLUMBIA COLLEGE CALGARY

Mastery Learning Tutorial

Final Exam Procedures

Introduction

This document was designed for courses in a program which has a final written exam. It does not apply to courses where a final written exam is not used. Yet, wherever possible, the principle of Mastery Learning should remain the same. For example, in a course that is paper-based, project-based, or lab-based, the program should be setting a Mastery Learning standard of performance and students should be expected to demonstrate mastery or be required to engage in certain tutorial type activities in order to be re-assessed. In unusual cases, such as a practicum, the student may be required to demonstrate mastery following the normal completion of the program.

This document presents many steps and activities a department can follow as it relates to final exam proctor procedures. It was designed for a program with morning classes. As some programs have a different delivery schedule, they will need to make changes to this plan. However, they should do their best to follow the procedures as closely as possible.

Prior to Tutorial

- Final Exam A will normally be written Monday morning. This exam will be marked Monday afternoon and students' marks posted on Moodle that afternoon before 4 p.m. for students to check their mark.
- The test marker will develop a separate list of incorrect test items for each student who scored below the Mastery Learning level. These lists will be forwarded to the Mastery Learning facilitator who will review them prior to their tutorial.
- The facilitator will make a separate set of the lists that will be handed to the students as they begin their Mastery Learning tutorial.
- Students who scored low on Exam A will meet Tuesday morning for an 8 a.m. to noon Tutorial. If necessary, each student will attend the morning tutorials on Wednesday and Thursday as well until they have demonstrated Mastery Learning.
- Final Exam B will normally be written Monday afternoon. This exam will be marked Tuesday morning and students' marks posted on Moodle before 11 am that morning.
- The test marker will follow the same activities as described by Exam A.
- The facilitator will follow the same activities as described by Exam A.
- Students who scored low on Exam B will meet at 1 pm Tuesday afternoon for a tutorial that may be up to 4 hours. If necessary, each student will attend afternoon classes on Wednesday and Thursday as well until they have demonstrated Mastery Learning.
- During the first two semesters a new cohort will be enrolled in 2.5 courses per semester. This means they will be required to write another final exam.
  This exam will be written on Tuesday morning. It will be marked Tuesday afternoon and students notified of their results Tuesday afternoon.

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Any student scoring below the Mastery Learning level will be required to attend Mastery Learning Tutorials for the course as scheduled. These may begin as early as Wednesday at 8 a.m.

Goal of the Mastery Learning Tutorial

The facilitator will review the goal of the Final Exam Mastery Learning Tutorial with the students:
1. To engage in a number of learning activities that will focus on questions or procedures students responded to incorrectly in their final exam.

2. To reassess each learner in order to determine if they now have a clear understanding of:
    2.1   Why the response they made to each question was not the best response
    2.2   What the best response was
    2.3   Why this is, in fact, the best response.

3. The primary objective is for students to remain in the Final Exam Mastery Learning Tutorials until their final exam score meets the minimum master learning score required to pass.

4. The secondary objective, where time allows and both the facilitator and student agree, is for them to review what the facilitator feels are other highly important questions or assessments the student got wrong that will help them perform much better in their next courses and/or the workplace as they move forward.

5. Other students who achieved their mastery learning score in the final exam may also attend these tutorial classes. They may help each other review questions they got wrong or assist students who were required to attend. They may get assistance from the facilitator as time allows.

During the Tutorial

1. The facilitator identifies each question on the list from the final exam and asks which students got the question or procedure incorrect.
    Step 1 – Identify the question or procedure with the highest number of incorrect responses.
    1.1   Discuss the question or procedure on the lists that was responded to incorrectly by the greatest number of students.
    1.2   Ask the students why they now thought that their response was not the best response. Class discussion.
    1.3   Ask the students, based on what they have learned since writing the final exam, what is actually the best response. Class discussion.
    1.4   Ask the students <u>why</u> their new choice is, in fact, a better choice. Discuss.
    1.5   As some students may be confused and not clearly understand why a certain response was a better response, the facilitator may need to take additional time to help them individually understand.

    Step 2 – Identify the second most common incorrect question on the list.
    2.1   Identify the second question or procedure that received the most incorrect responses.
    2.2   Ask students to form into smaller review groups to discuss the second question.
    2.3   Ask each group to complete the following tasks:
        2.3.1   Group is to determine why this was "not" the best response.
        2.3.2   Group to determine what they think is the best response.

2.3.3　Group to determine why this is the best response.

2.3.4　Each member of the group prepares to discuss this individually with the facilitator.

2.3.5　If time allows, the group is to follow the above procedures related to the third most common incorrect answer.

2.3.5.1　This step is again repeated with subsequent questions the group members responded to incorrectly. Students who responded correctly are encouraged to provide peer support to others in the group.

Step 3 – Individual Assessments

Once the small groups begin following the Step 2 activities, the facilitator begins individual assessments of students.

They should meet first with the student who got the least number of questions incorrect and therefore had the highest score on the exam.

3.1　As the facilitator meets with each student, they need to first ask them:

3.1.1　Why they chose the response they did?

3.1.2　Why it is actually not the best response?

3.1.3　What is the best response?

3.1.4　Why is it the best response?

3.1.5　If the facilitator has any concerns about what the student is saying, they may make up a similar closely related verbal question to the one that was marked incorrect and proceed to use it. Once the student answers it, the facilitator may ask the student to help them understand why this is the best response. This step may be repeated if necessary.

3.1.6　If the student gave an incorrect verbal response, the facilitator may discuss this matter further. They may also suggest other resources and/or peer activities the student could engage in during the tutorial that will help them achieve mastery.

3.1.7　The facilitator may also alternatively ask the student to demonstrate on paper, in a diagram, or by demonstration that they understand the item on the list.

3.1.8　If the facilitator is satisfied with the student's response, they will calculate the value of the corresponding test question, note on their copy of the list the question as correct, and change the test score in Moodle following the tutorial.

3.1.9　If the new test score takes the student above the mastery level, then the facilitator will advise the student that they may leave the tutorial.

3.1.10　The facilitator will now ask the <u>next</u> student to meet privately with them.

3.1.11　By the end of the tutorial, the facilitator will have met privately with all students at least once. Ideally all students will have had their test scores adjusted to the minimum mastery learning level. No tutorial test score will exceed this minimum level.

3.1.12　Any student who does not achieve mastery will be provided with such additional recommended work to complete prior to the next tutorial. This may include further reading, meeting with a fee-based facilitator, meeting with a learning specialist, and/or informally meeting with peers.

3.1.13　When necessary, the facilitator will make notes of all test score changes and enter them in Moodle after the master tutorial session has ended.

3.1.14 Any student who is unable to obtain a minimum Mastery Learning score by the end of the tutorial on Thursday will have one final option. That option would be to write the entire final exam (that has been modified) on Friday morning at 8 a.m. for course A and Friday afternoon for course B started at 1 pm. A third final exam may be scheduled for Saturday morning during the semesters when students are enrolled in the 2.5 course (week 1 to 10 of a program).

3.1.15 Any student who does not pass this re-write of the final exam will normally be withdrawn from the program and will have to reapply.

3.1.16 Their re-application will not be considered until such time as they can satisfy the Program that they will be successful in the future.

3.1.17 The length of time they have been inactive in the program will affect the number of other program courses they will have to repeat at their own cost for tuition, fees, books, and labs.

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