

Fall 2007 LDC Exam Results --Macroeconomics

This brief report describes how well fall 2007 BUS 302L students performed on their *first* take of the macroeconomics exam. These results offer some insight into which of the top ten concepts junior-level business students find most difficult.

Roughly 1,007 students enrolled in BUS 302L during the fall 2007 semester. Table 1 contains the top ten concepts for macroeconomics. Table 2 provides a breakdown of the LDC exam by topic number and level of question difficulty.

Table 1. Top Ten Concepts in Macroeconomics

Topic Number	Macroeconomic Concept
1	Define and calculate GDP. Understand the difference between real and nominal variables (e.g., GDP, wages, and interest rates) and know how to construct a price index.
2	Explain the role of capital investment, education, and technology in determining economic growth.
3	Explain the importance of institutions, including private property rights, in long-run economic growth.
4	Explain that interest rates are determined in a market for loanable funds.
5	Explain what factors determine the level of unemployment.
6	Explain how the Federal Reserve and the banking system create money (i.e., the supply of money). Explain the factors that affect the demand for money.
7	Know the equation of exchange and the connection between money and inflation.
8	Explain how slow price adjustments might affect the short-run response of the economy to economic shocks.
9	Explain the strategy behind government policies to stabilize the economy and the specific role of the Federal Reserve.
10	Explain why a merchandise trade deficit is offset by capital flows and investment in debtor countries.

The third and fourth columns in Table 2 indicate the number of student responses and the percentage of responses that were correct. For example, row one shows that students answered 286 questions on topic 1 with a level one difficulty *and* that 53.5 percent of those answers were correct.¹

¹ Each LDC exam has 16 questions and only 10 topics. Thus, it is possible for the number of student responses (for a topic) to be greater than the number of students who took an LDC exam.

Table 2. LDC Macroeconomics Results by Topic and Question Difficulty

Topic Number	Question Difficulty	Number of Student Responses	Correct Answers (percent)
1	1	268	53.5
1	2	544	44.4
1	3	97	37.9
2	1	549	69.1
2	2	1,075	44.2
2	3	96	49.8
3	1	325	77.2
3	2	487	48.2
3	3	41	38.8
4	1	367	61.6
4	2	1,257	44.3
4	3	43	39.2
5	1	486	84.1
5	2	1,138	48.3
5	3	111	43.7
6	1	174	74.2
6	2	638	46.9
6	3	76	43.3
7	1	592	67.8
7	2	1,032	41.4
7	3	102	52.5
8	1	117	44.9
8	2	695	44.3
8	3	107	47.3
9	1	441	46.0
9	2	1,183	38.0
9	3	67	41.5
10	1	269	46.2
10	2	543	36.1
10	3	72	50.9

The level of question difficulty is determined by the economics faculty who developed the exam questions. As expected, Table 2 shows a lower percentage of correct responses for the more difficult questions (with some exceptions in topics 2, 7, 8, and 10).

Overall student performance is fairly modest on the macroeconomics exam. For example, the percentage of correct answers by topic range from a high of 84.1 (48.3) percent to a low of 44.9 (36.1) percent on the questions with level one (two) difficulty.

When controlling for question difficulty, student performance is consistently highest on topics 3 and 5. Students appear to have the greatest difficulty on topics 9 and 10. This finding is easier to see when ignoring question difficulty and displaying LDC exam results by topic only in Table 3.

Table 3 indicates that roughly 58 percent of the questions covering topics 3 and 5 were correctly answered. By contrast, only 40 percent of the questions covering topics 9 and 10 were correctly answered.

Table 3. LDC Macroeconomics Results by Topic Only

Topic Number	Number of Student Responses	Correct Answers (percent)
1	909	46.4
2	1,720	52.5
3	853	58.8
4	1,667	48.0
5	1,735	57.9
6	888	51.9
7	1,726	51.1
8	919	44.7
9	1,691	40.2
10	884	40.4

A p chart was used to investigate whether the percentage of correct answers differs significantly among the topics. The results are shown on the following page in Figure 1. The p chart reveals that 49.4 percent of all questions on the macroeconomics exam are answered correctly. However, topics 3 and 5 are significantly above this overall percentage, while topics 9 and 10 are significantly below it. Topics 1, 2, 4, 6, 7, and 8 vary from the overall percentage but the differences are not statistically significant.

If the LDC exam questions are a fair indicator of student knowledge, then lower-division macroeconomics instructors may need to devote more time to topics 9 and 10.

Figure 1. P Chart of the Percentage of Correct Answers by Topic

