



DIRECT ASSESSMENT RESULTS

CRITICAL AND ANALYTICAL THINKING

INFORMATION TECHNOLOGY

Prepared by the McCoy College Assurance of Learning Committee:

Dr. Michael Keefe, Committee Chair, Department of Management
Dr. Francis Mendez, Department of CIS/QM
Dr. Taewon Suh, Department of Marketing
Prof. Diane Eure, Department of Accounting
Dr. Vance Lesseig, Department of Finance & Economics
Dr. Mayur Mehta, Associate Dean, Ex-officio

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Embedded Assessment Results for BBA Program Goals 2 and 3

BBA Program Level Goal 2 and 3:

Apply critical and reflective thinking skills and use analytical tools to evaluate information, solve problems, and make sound decisions.

Graduates should be able to carefully and logically analyze data, information, problems, and ideas from multiple perspectives. They may demonstrate these critical and reflective thinking skills through their ability, in a variety of circumstances, to synthesize information and evaluate its logic, validity, and relevance; arrive at reasoned conclusions, make informed decisions, and solve challenging problems; and generate or explore new questions.

Apply information technology skills to organizational problems and decisions.

Graduates should be able to use information technology in their work environment and to understand the impact of that technology in various organizational contexts

Methodology:

The BBA Course Alignment Grid identifies core courses that both cover and assess critical thinking skills and informational technology skills. Faculty in each of these core course-teaching groups participated in this assessment. Faculty were asked to assess students' performance on college learning goals using course specific criteria and report results in the format of Exceeds Expectations, Meets Expectations, or Does Not Meet Expectations. Working with faculty teaching core course sections, each core course coordinator chose their course's common method of direct, course-embedded assessment, which included multiple methodologies ranging from common test questions and assignments to written assessment rubrics. Methods, by course, are discussed below and are indicated on the composite table after course numbers.

Methods for BBA Program Goal 2 – Critical and reflective thinking.

Accounting 2361. To assess student learning of Program Goal 2, one form of direct method assessment was used. The assessment consisted of multiple choice questions embedded in four chapter exams plus a comprehensive final exam during the semester (a total of 5 exams). These questions focused on students' understanding of accounting methods and their ability to evaluate the outcomes of selecting one method versus another method. Also included were analytical questions with extraneous data added as distracters. A total of 30 questions were included in the five exams, which were given during regularly scheduled classes. Each exam had 3 critical thinking questions, one rated easy, one rated medium and one rated hard. Each exam had 3 analytical questions, one rated easy, one rated medium and one rated hard. A total of 1,281 students were enrolled in all sections of ACC 2361 during the fall 2012 and spring 2013 sessions on the 12th day of classes. Of those 1,281 students, 846 students were included in the assessment

data. The criteria used to determine if a student exceeded expectations was a score of 80.0% or greater, for a student to meet expectations the score had to fall between 60.0% and 79.99%, and for a student to fail to meet expectations the score had to fall below 60.0%.

Accounting 2362. To assess student learning of the program goal, multiple-choice questions were used. A total of 15 questions were embedded in 5 exams throughout the semester. The multiple-choice questions required students to know the material, classify and interpret data, apply accounting concepts, and calculate solutions. Students had to determine which items were relevant to the question being asked and apply the correct accounting process in order to correctly answer the question. The criteria used to determine if a student exceeds expectations was a score of 85.0% or better, for a student to meet expectations a score had to fall between 60.0 and 84.99%, and for a student to fail to meet expectations a score must have been less than 60.0%. Of the 735 students participating in the assessment, 597 were students majoring in business.

Economics 2314. Three forms of the direct assessment method were used to assess student learning of the program goal. Each of the three forms involves answering seven embedded multiple-choice questions on the final exam. The first form deals with the concepts of supply and demand and ability to analyze current economic issues across various market settings. The second form focus on analyzing microeconomic policy options and assessing their effect on social welfare and efficiency. The third form required students to interpret and analyze economic data. Each outcome was assessed using seven multiple-choice questions embedded in final examinations of both semesters. There are a total of 21 objective questions. Students who score between 70- 89% are judged to meet expectations, and students who score 90% and above are judged to exceed expectations. Students who score 70 or lower are judged to fail to meet expectations.

Economics 2315. During 2011-12 and 2012-13, students in 16 sections of Economics 2315, Principles of Macroeconomics, were evaluated on the goal of using critical thinking skills to evaluate information, solve problems, and make sound decisions. The assessment method for evaluating the students was objective questions embedded in an in-class examination. A total of 908 students were assessed, and 90% correct was the standard for 'exceeds expectations' and below 70% 'did not meet expectations'.

Qmst 2333 (Statistics). To assess student learning of the program goal, core course faculty used a direct method consisting of exam-imbedded items requiring application of analytical and problem-solving skills (30 items). The criteria used to determine if a student exceeds expectations were a score of 95.0% or better, for a student to meet expectations a score had to fall between 70.0 and 95.0%, and for a student to fail to meet expectations a score had to be less than 70.0%.

Business Law 2361. To assess student learning of the program goal, sixteen chapters were identified and one common critical thinking question per chapter was to be used in testing over the material in all sections of the course. The questions were multiple choices, requiring the students to understand a base concept and reason to a conclusion. The criteria used in the determination of the students' success in meeting expectations were: a score of 80.0% or better

to exceed expectations, a score equal to or greater than 60.0%, and less than 80.0%, to meet expectations, and, a score less than 60.0% failed to meet expectations.

Management 3303. To assess student learning of the program goal, two forms of the direct method were used. The first form consisted of multiple choice questions focused primarily on definitions of key terms in the assigned course readings. The second approach also consisted of multiple-choice questions, but these questions were of an application orientation and required interpretation of business situations. Students answered a total of 10 questions that were asked as part of an in-class exercise. The criteria used to determine if a student exceeds expectations were a score of 90.0% or better, for a student to meet expectations a score had to fall between 70.0 and 89.0%, and for a student to fail to meet expectations a score had to be less than 70.0%. Data were collected only in the spring 2013 semester due to a process change that occurred between the fall and spring semesters.

Finance 3312. All teaching faculty of the course collaboratively agreed on questions involving critical/analytical thinking for financial problems on exams for this assessment. When determining the assessment questions, previous assessment questions were considered for continuity. The data were aggregated for all sections, and a score of 90% 'exceeded expectations', 70% to 89% 'met expectations', and 69% and below 'did not meet expectations'.

Management 3353. To assess student learning of the program goal, students completed a final analytical business report and a team presentation summarizing the reports. The students are assessed on their ability to analyze, evaluate, and synthesize literature and primary data. Students are also assessed on drawing conclusions and implications from their analysis and formulating practical recommendations. Standards were; exceeded expectations- students that earned 90% or better; met expectations- 80% to 89%; below expectations- 79% and below.

Marketing 3343. To assess student learning of the program goal, we used ten embedded questions in the final exam that required students to take information given in the question, use deductive reasoning, consider multiple alternatives, and compare possible solutions given the constraints listed in the information available to them. These ten questions were embedded in a 100 question exam. The criteria used to determine if a student exceeded expectations was a score of 90% or better. A student who met expectations had to have a percentage of correct answers between 70% and 89%. Those who failed to meet expectations had scores below 70%.

CIS 3380. Several assignments were used to assess critical thinking. The assignments require students to access data sets, manipulate the data, and formulate hypotheses based upon first hand individual discovery during the data investigation. Standards of evaluation were consistent with the University grading system.

Management 4335. Students work individually on a strategic analysis of a major corporation. This culminates in a written paper addressing corporate- and business-level analyses (including financial analyses), recommendations, tables, and references. Students also analyze a current business situation, including the historical background, all pertinent data, internal and external analysis, and recommendation. This is presented to the class in an oral presentation of approximately 45 minutes in length. Assignments are evaluated on a common rubric, and a

score of 90% or greater ‘exceeds expectations’, 70% to 89% ‘meets expectations’, and 69% and below ‘does not meet expectations’.

Critical/Reflective/Analytical Thinking	N=	Fails to Meet	Meets	Exceed	M+E=%
ACC 2361 - common test questions/problems	592	35.14	53.37	11.49	64.86
ACC 2362 - common test questions/problems	597	23.95	56.45	19.60	76.05
ECO 2314 - multiple approaches	660	54.00	41.00	5.00	46.00
ECO 2315 - common in-class exam	908	40.50	26.20	33.30	59.50
QMST 2333 - application/problem questions	703	16.00	47.00	37.00	84.00
BLAW 2361 - common exam questions/chapter	599	32.05	42.24	25.71	67.95
MGT 3303 - terms/application exam questions	131	14.00	46.00	40.00	86.00
FIN 3312 - common test questions/problems	365	19.00	30.00	51.00	81.00
MGT 3353 - analytical report/presentation	336	12.79	52.00	36.01	88.01
MKT 3343 - common test questions/problems	1074	11.91	42.36	45.72	88.08
CIS 3380 – multiple assignments	785	17.57	14.78	67.64	81.42
MGT 4335 - corporate strategy analysis	268	8.00	74.00	18.00	92.00

Methods for BBA Program Goal 3 – Information Technology.

CIS 1323. To assess this goal, a direct method was used. Instructors submitted a score for each student on an examination that, in the instructor's judgment, best reflected the student's ability to use MS-Excel to manipulate and summarize data. Scores from students were on a scale of 0 to 100. Scores of 80 to 100 were rated as "exceeds expectations"; scores between 60 and 80 were rated as "meets expectations", and scores of less than 60 were rated as "fails to meet expectations".

Qmst 2333 (Statistics). To assess student learning of the program goal faculty used a direct method consisting of a common assignment, developed by all teaching faculty, requiring students to use Excel to analyze and graph statistical data. The criteria used to determine if a student exceeds expectations were a score of 95.0% or better, for a student to meet expectations a score had to fall between 70.0 and 95.0%, and for a student to fail to meet expectations a score had to be less than 70.0%.

CIS 3380. Measuring the goal of ‘Information Technology’ was accomplished by directly observing students using technology. Students were observed using technology applications to

complete assignments and were assessed on the effectiveness and efficiency of using technology to accurately complete assignments. Standards of evaluation were consistent with the University grading system.

Finance 3312. All teaching faculty of the course collaboratively agreed on questions involving the use of information technology for financial problems on exams. The data were aggregated for all classes, and 90% ‘exceeded expectations, 70% to 89% ‘met expectations’, and 69% and below ‘did not meet expectations’.

Information Technology	N=	Fails to Meet	Meets	Exceed	M+E=%
CIS 1323 - Excel manipulation assignments	334	21.30	35.00	43.70	78.70
QMST 2333 - Excel applications	832	29.92	30.30	39.78	70.08
CIS 3380 - Direct usage/observation	785	17.57	14.78	67.64	81.42
FIN 3312 – Technology exam questions	258	27.00	44.00	29.00	73.00

Round Rock Classes Results.

Some core class sections were taught at the Round Rock campus during the 2012-2013 academic year measuring goal 2. Methodologies and standards of performance are the same as stated previously.

Critical/Reflective/Analytical Thinking	N=	Fails to Meet	Meets	Exceed	M+E=%
MKT 3343 - common test questions/problems	83	9.60	50.60	39.80	90.40
MGT 4335 - corporate strategy analysis	50	16.00	54.00	30.00	84.00

Comments and Observations.

1. The committee is pleased with the improvement in sample sizes used for direct assessments and the willingness of many core course-teaching groups to gather and track data in non-reporting years. The Management 3303 sample size does not appear consistent due to methodological changes and revision of instruments used to assess critical thinking in the introductory course.

2. The initial Accounting and Economics courses appear to be below benchmarks of upper division courses for direct critical thinking assessment due to several factors. Freshman and sophomore courses include some individuals who will not continue in the McCoy College or will change to other majors outside the college. These courses also require critical thinking of a

theoretical or applied nature with complex applications, which are difficult for beginning students. Core course teaching groups are nonetheless encouraged to review critical thinking learning outcomes, examine direct assessment instrument in light of Bloom's taxonomy and overall levels of difficulty, and teaching delivery methods and teaching methodologies. These encouragements are also made due to changes in Core Course Coordinator roles and changes in teaching faculty.

3. The 'Information Technology' results indicate that students could use more coverage or reinforcement of Excel spreadsheets as a tool for business applications. The college core courses have changed curriculum focus to emphasize the Office 10 suite of programs to include more spreadsheet and database applications and less presentation and desktop publishing applications. The committee believes that additional reinforcement of spreadsheet use and applications should be an emphasis in the college core curriculum, as well as departmental major and elective courses to improve student performance.

4. The CIS 3380 course is undergoing revisions and changes in teaching faculty and the course coordinator. The committee has some reservations about observation techniques to assess student-learning outcomes unless there is a comprehensive rubric agreed to, and used by all core course-teaching faculty. The AOL committee chair will follow up to insure appropriate assurance of learning standards are being followed.