

ASSESSMENT REPORT FOR INSTRUCTIONAL PROGRAMS

Name: Ernst Coupet, Jr.

Program / Department Finance/ Accounting & Finance Department

PART 1: ASSESSMENT REPORT

Directions: All items should be addressed in a clear and concise narrative (one paragraph or more each) and uploaded into *LiveText* [www.livetext.com].

1. For clarity, please rename your document as: Assessment Report [Program, Level, Spring 20xx]
For example: Assessment Report Chemistry UG Spring 2017
2. Upload your document into your departmental/program/unit *LiveText* account. Please name the document shell.
3. **For example: Assessment Report Chemistry UG Spring 2017**
4. Share your document with the CSU Assessment Committee <csuac_admin> as an Editor.
Steps 8 and 9 in the Assessment Coordinators Live Text Resource Document.
5. Submit your document for Review to one of the following:
csuac_02 [Academic Undergraduate]
csuac_03 [Academic Graduate]
csuac_04 [Academic General Education]
Steps 10 and 11 in the Assessment Coordinators Live Text Resource Document.
Deadline for ALL reports is June 1.

Evidence to Support Achievement of Student Learning

Results of the Comprehensive Assessment

The comprehensive assessment report is issued to each student enrolled in the Finance 4700, the capstone course for finance students. The results are not very good for the program for the year 2016. The goal is to have at least 60% of students in the cohort scoring at least 70% on the instrument. There are a few reasons for this performance:

- A few students were incorrectly advised to take the course and should not have been enrolled in the advanced course.
- The instrument assesses the level of understanding of finance theory in four major pillars of finance. Most students had not taken courses in all four pillars. This was primarily due to low enrollment.
- The instrument included materials that were not offered in the program. Topics in international finance were included in the assessment instrument, but has not been taught in the College for approximately two years. International finance (FIN 3650) was erroneously left off the “Change of Program” form, not including the course as a required course for matriculation. This error was identified in the spring semester of 2017 and should not be an issue moving forward.

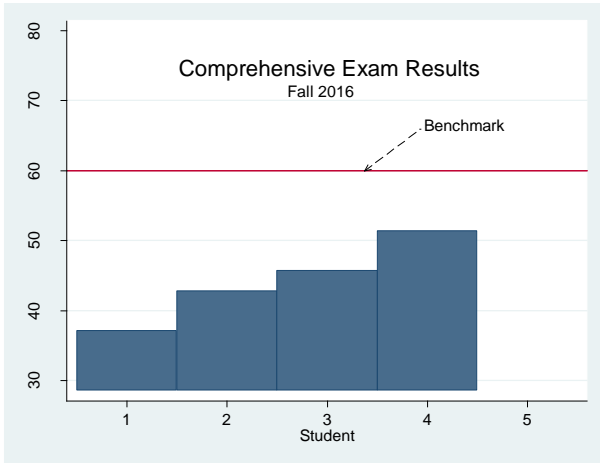


Figure 1 Overall results of Comprehensive exam

Subtopics in Finance

The following results are from assessments of sub-topics in finance:

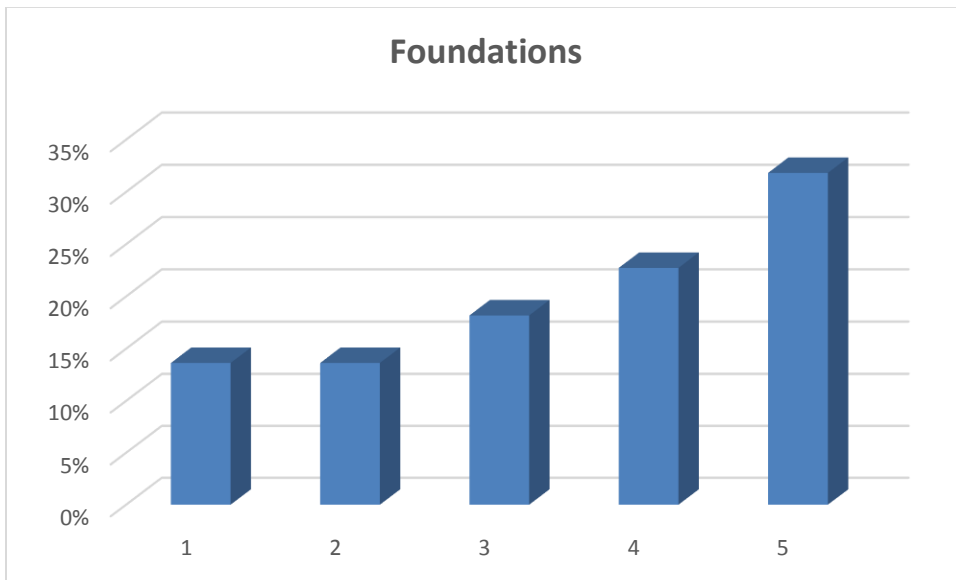


Figure 2 Foundations of Finance portion of Comprehensive Exam

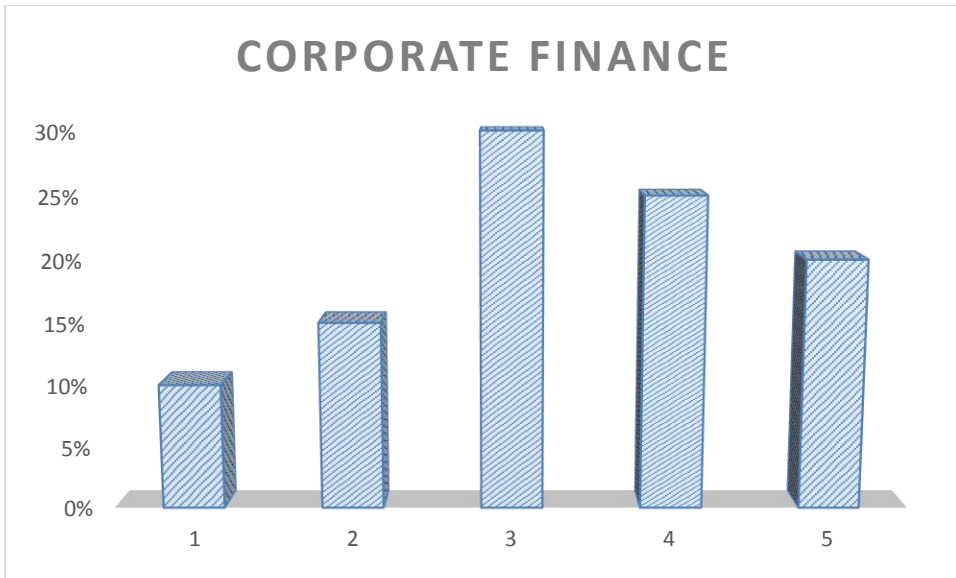


Figure 3 Corporate Finance section of Comprehensive Exam

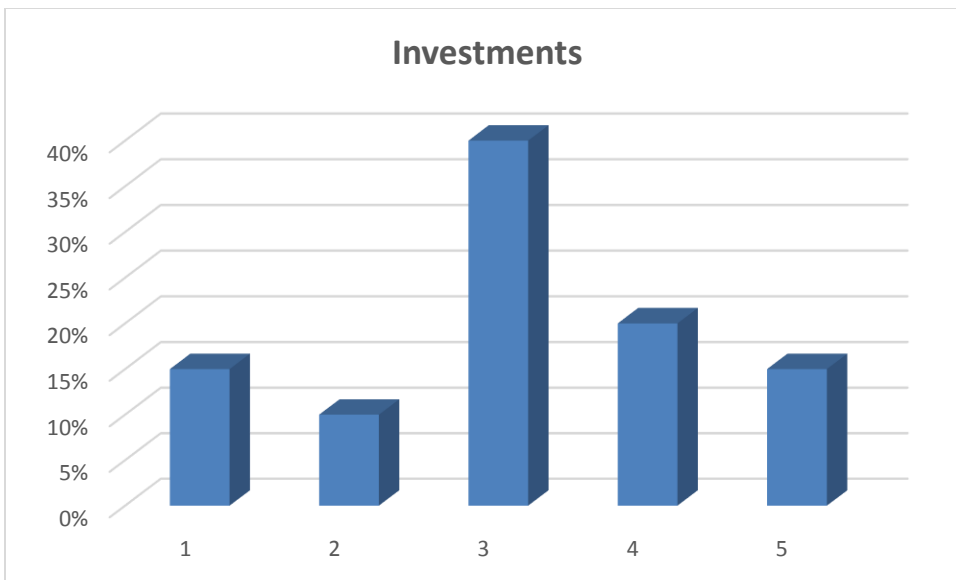


Figure 4 Investments portion of Comprehensive Exam

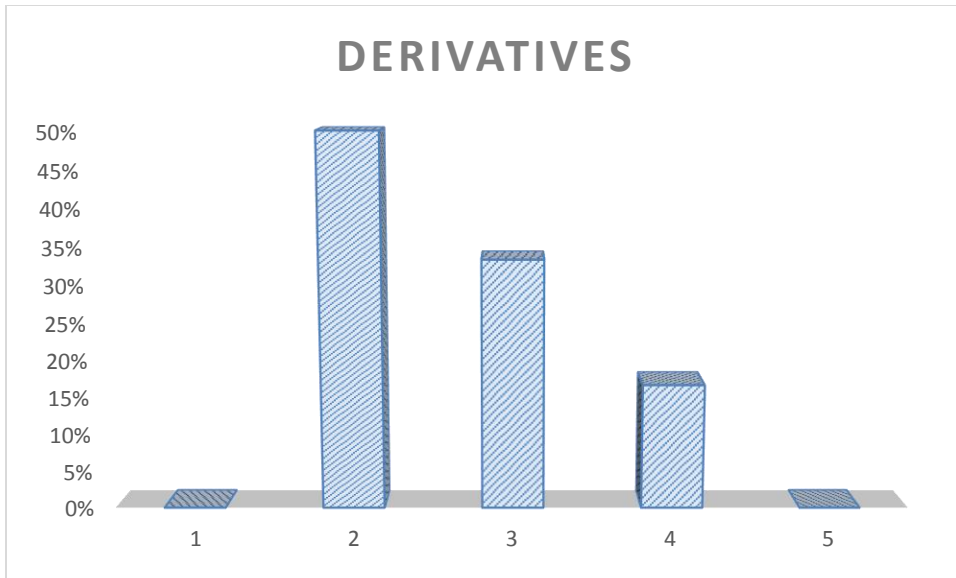


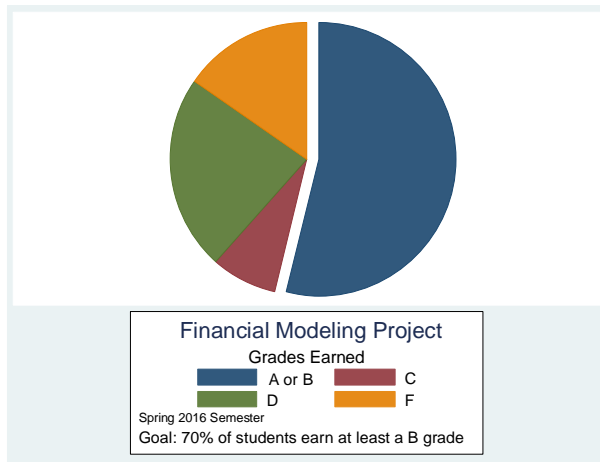
Figure 5 Derivatives portion of Comprehensive Exam



Figure 6 International Finance portion of Comprehensive Exam

The lackluster performance in the overall Figure 1 is corroborated in the subtopics. The benchmark performance is 60% of test-takers scoring at least 70% on the instrument. Except for international finance, performance is far below the 60% benchmark.

We note that the lackluster performance in the overall Figure 1 is corroborated in the subtopics. The benchmark performance is 60% of test-takers scoring at least 70% on the instrument. Except for international finance, performance is far below the 60% benchmark.



Grade	Freq	%
A or B	7	53.8%
C	1	7.7%
D	3	23.1%
F	2	15.4%

Figure 7 Financial Modeling Project Results

The benchmark, or goal, for use of technology is for 70% (refer to assessment plan) of students to score at least a B on the project. As the results suggest, only 5% achieved that goal.

ETS

Due to a lack of funding, the ETS assessment instrument was not administered for the 2016 period.

Research Project

The research project is assigned in FIN 3660. This course was cut, due to lack of enrollment.

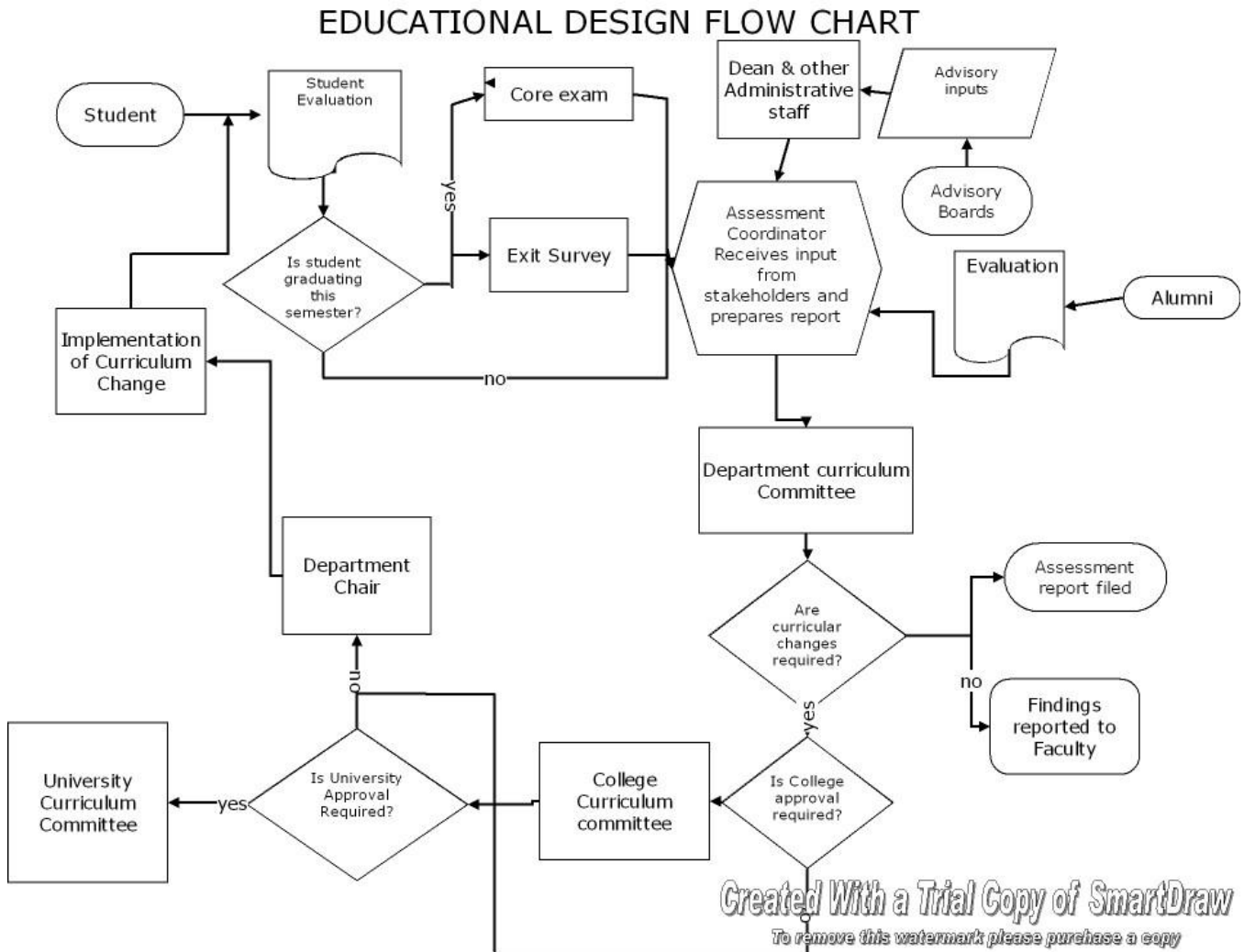
Analysis and Program Change

Based on the assessment results, the program has identified several points of weakness and will implement the following in the Spring 2017 assessment cycle:

1. Offer and retain all required professional program courses within the 2017 academic period. This will reduce the number of students taking independent study courses to complete required coursework. This will also ensure that courses are taken in sequence.
2. Revise the comprehensive exam to achieve balance in the number of subtopics, and incorporate the questions that are included in the Senior Exit Survey into the Comprehensive exam to better control the process.
3. The Department will conduct a search for and hire another finance faculty member to stabilize the department and the Program. The goal is to have this faculty on staff by spring 2018.

Assessment as a Departmental Priority

The flow chart below identifies the process that we have implemented in the College of Business. As the diagram illustrates, assessment results are the central vehicle for curricular changes in the department and program.



Publicizing Student Learning

What are the current mechanisms for publicizing assessment? **Note:** all programs must provide assessment information on their department/program webpage. In addition, all programs must identify at least one other systematic publication venue.

Results will be distributed to the department and a modified version made available for the department assessment web site. **(See below)**

<http://www.csu.edu/collegeofbusiness/accountingandfinance/assessment.htm>

PART 2: ASSESSMENT PLAN

Program Mission

The mission of the Finance Program is to produce highly valued graduates in the field of finance, with a degree to compete in the global economy. Additionally, the department strives to foster faculty/employer relationships, produce quality research, generate substantial external funding, and actively engage in professional service. Finally the department is committed to assisting and empowering minority small businesses through faculty/student collaboration.

Program effectiveness objectives:

1. Improve students' academic performance on the Education Testing Service (ETS) to 55th percentile ¹ in 2016.
2. Improve finance students' academic performance on the Comprehensive Exam to a pass rate of 60% in 2016.

Student Learning Outcomes (SLOs)

A graduate of the Finance Program will be able to:

- a. Prescribe an appropriate financial management theory to solve a problem;
- b. organize their thoughts to effectively communicate in any business environment;
- c. integrate financial analysis technology to solve business related problems;
- d. evaluate entrepreneurial opportunities;
- e. integrate financial management theory in a global business environment;
- f. assess organizational diversity in a business environment; and
- g. Determine ethical issues and select appropriate actions

**FINANCE PROGRAM
COB Core coursework**

Business Core courses – Taken by all COB majors

LO	LEARNING OUTCOMES SUMMARY	Acct 1290	Acct 2110	Acct 2111	Fin 2660	Mgmt 1030	Mgmt 3240	Mgmt 3010	Mgmt 3020	Mgmt 4890 CAPSTONE	Qba 2000, 10
LO1	FINANCIAL THEORY				K					A	
LO2	CRITICAL THINKING	K	K	K	A	A	A	A	A	S	S
LO3	COMMUNICATI-ON	A			A	A	A	A		S	
LO4	TECHNOLOGY				K		K			A	S
LO5	ENTREPRENEURSHIP						K	K		A	
LO6	GLOBAL BUSINESS					K		K		S	
LO7	DIVERSITY					K		A	A	S	

¹ 70% of the sample taking the test will test in the 55 percentile

FINANCE PROGRAM

FINANCE PROGRAM REQUIRED COURSES

	LEARNING OUTCOMES SUMMARY	Fin 3690	Fin 3680	Fin 4700	Fin 3660	Fin 3630	Qba 3310	FIN 3650
LO1	FINANCIAL THEORY	S	S	S	S	A	S	S
LO2	CRITICAL THINKING	S	S	S	S	A	S	S
LO3	COMMUNICATION			S	S	S		
LO4	TECHNOLOGY		S	S		S	S	S
LO5	ENTREPRENEURS HIP			K				
LO6	GLOBAL BUSINESS			K	K			
LO7	DIVERSITY			A				

*Cells should be populated with K (Knowledge), A (Analyze), or S (Synthesize) to indicate the level of learning that will be achieved in the course.

Assessment Plan Detail

Program Effectiveness Outcomes (PEOs) and Student Learning Outcomes (SLOs)

PEOs	SLOs	Assessment Instruments	Criteria
1,2,3,4,5	a. Prescribe an appropriate financial management theory to solve a problem.	a. Direct Assessment Instrument 1. comprehensive exam	60% of graduates having a grade of 70% or higher
	b. Organize thoughts/data to effectively communicate in a business environment	b. Direct Assessment Instrument 2. Paper evaluation	C and above (see rubric below)
	c. Integrate technology to provide solutions to business problems	c. Direct Assessment Instrument 3. Design and build an Excel financial model - FIN 3630	70% of students earn a minimum grade of "B" on the financial modeling project.

			Rubric is found below.
	e. Integrate management and marketing concepts in a global business management	e. Direct Assessment Instrument. Comprehensive exam	60% of graduates having a grade of 70% or higher
	f. Assess organizational diversity in a corporate environment	f. Indirect Assessment Instrument 6. Senior Exit Survey	Percentage of respondents who recognize this situation.

Definition of Criteria for Assessment

Writing sample: This is a research paper of considerable length that is administered in an upper-level course, graded by two faculty members. For the term paper, a grade of A or B must be earned. The criteria are as follows:

- Grade of A: Students who perform at the A level demonstrate outstanding use of research and study skills. Their papers demonstrate outstanding knowledge of financial theory and its relevance. Their papers also exhibit outstanding use of critical thinking skills in evaluating and employing financial data. The A paper states and develops a thesis in logical fashion; the writing is clear and in error-free English prose.
- Grade of B: Students who perform at the B level demonstrate excellent use of research and study skills. Their papers demonstrate excellent knowledge of financial theory, its application, and institutions. Their papers also exhibit excellent use of critical thinking skills in evaluating and employing political data. The B paper states and develops a thesis in logical fashion; the writing is clear and in error-free English prose.
- Grade of C: Students who perform at the C level demonstrate good use of research and study skills. Their papers demonstrate good knowledge of financial theory, its application, and institutions. Their papers also exhibit good use of critical thinking skills in evaluating and employing political data. The C paper states and develops a thesis in logical fashion; the writing is clear and in error-free English prose.

Senior Exit Survey: This is an indirect assessment approach that captures the views and input of graduating students with respect to the program offerings of COB as well as that of Management. The level of student satisfaction is measured on a scale of 1-5 (where 1= extremely dissatisfied, and 5= extremely satisfied). The survey also measures a student's understanding of the importance and contribution diverse workforce makes in a business organization.

Definition of Criteria for Assessment

Financial Modeling: This is an Excel-based project that utilizes contemporary financial theory and robust functions in Excel to produce an efficient model for valuation and analysis.

- Grade of A: Students who perform at the A level demonstrate outstanding use of finance theory and Excel modeling skills. Their models demonstrate outstanding knowledge of financial theory and its relevance. Their models also exhibit outstanding use of planning in evaluating and modeling financial data. The A model uses sound financial theory to forecast asset values, employs a thorough sensitivity analysis of relevant factors, and minimizes the input of redundant values.
- Grade of B: Students who perform at the B level demonstrate good use of finance theory and Excel modeling skills. Their models demonstrate good knowledge of financial theory and its relevance. Their models also exhibit good use of planning in evaluating and modeling financial data. The A model uses sound financial theory to forecast asset values, employs a moderate sensitivity analysis of relevant

factors, and somewhat minimizes the input of redundant values.

Grade of C: Students who perform at the C level demonstrate adequate use of finance theory and Excel modeling skills. Their models demonstrate adequate knowledge of financial theory and its relevance. Their models also exhibit the use of planning in evaluating and modeling financial data. The A model uses financial theory to forecast asset values, somewhat employs sensitivity analysis of relevant factors, but does not minimize the input of redundant values.

PART 3: APPENDIX

Curriculum committee minutes

College of Business Faculty and Staff In attendance: Dr. Alsamara, Dr. Abuleil, Dr. Jackson, Dean Collins, Dr. Coupet, Professor Bibb.

Meeting Called to Order. Dr. Alsamara called the meeting to order at 11:08 a.m.

The first order of business was elections for the College Curriculum Committee for the term from 2016 – 2017. Because we did not have a quorum at the time, it was decided that we would prepare a slate of candidates for two positions on the College Curriculum Committee, and present this slate to the College of Business faculty for their vote.

The following slate of candidates were presented (a quorum is required in order to make a motion to nominate candidates – we did not have a quorum at the time):

- Chairperson: Dr. Khalid Alsamara (Dr. Jackson moved and Dr. Abuleil seconded the motion)
- Secretary: Dr. Joni Jackson (Dr. Abuleil moved to nominate)

Old Business

Marketing Curriculum Changes

The proposed changes in the marketing curriculum were reviewed. These changes reflect our previous discussion of proposed changes to bring our curriculum up to date. In order to move forward, our next steps to adopt these changes will be the submission of the proposed changes to the University Curriculum Coordinating Committee (UCCC). Dr. Jackson and Professor Bibb will complete a final review of the curriculum changes as well as prepare syllabi for two of the courses (one revised course, one new course). The marketing professors may request the required UCCC forms from Dr. Alsamara once they have completed the course descriptions and syllabi.

The next meeting of the UCCC will be at the end of November. Thus, the marketing faculty will aim for completion of the syllabi early spring, review from the College Curriculum Committee, after which the required forms will be forwarded to the UCCC. Following this timeline, the proposed changes to the marketing curriculum will take effect in the fall of 2017.

New University General Education (Gen Ed) Requirements

The university recently approved new general education requirements. We will need to review the new Gen Ed requirements to ensure that there are no conflicts with our current curriculum. Dean Collins will forward the new Gen Ed requirements to the College Curriculum Committee for review.

New Business

Dr. Abuleil submitted a proposal for the formal certification in Management Information Systems (MIS) Note: A copy of this document was forwarded to all COB faculty, via email, prior to today's meeting.

The MIS Proposal was initiated by the Dean and highlights the importance and the key role of certifications in the College of Business. The proposal Dr. Abuleil presented outlines new certifications for MIS. As he noted, certification are important factors in recruitment and in helping students develop skills employers seek.

The certification is for two types of people – those without prior MIS education and those who have a degree in MIS who want to refresh their memory about new developments in the field of IT. Dr. Abuleil noted the different tracks (there are 6 tracks) in the proposal; the tracks represent different areas or concentrations (see document).

The basic requirements for certification: Students would be required to take 3 courses for each track and earn a minimum grade of "B." See the proposal for a complete description of the 6 tracks. Dr. Abuleil also noted that "we are using the TPS course for Track #2, which is a course currently offered in Technology and Performance Improvement Studies (TPS 4110); those students will take courses from the COB (i.e., we will work in partnership

with another college, using an existing course rather than developing a similar offering in the COB).

There were questions about the tracks.

The tracks are designed to prepare students to sit for various national or industrial exams. Dr. Abuleil noted, "We looked into and picked some [exams] for which students would be certified (e.g., Certified Associate in Project Management (CAPM)). So if a student completes track #2, he/she will be prepared to sit for this exam (CAPM). The track 2 material and curriculum cover what is required in the CAPM exam. Track #2 also prepares students for the Project Management Professionals (PMP) exam; however, the requirements for the PMP are higher (i.e., students must have experience in the field, 100 hours or more). Again, see the proposal for a list of the possible certifications and exams for which students may sit.

"To have any one of these certifications on a resume is a big plus for any person applying for a job." The certificates give students an opportunity to compete. This proposal is for non-degree certifications. Thus, we can target people from anywhere, not just Chicago State University (CSU) students. The vision is to target the community. We need to reach out as a college and this proposal offers one way to do so.

Students could earn two certificates: One from CSU and one from a professional association.

The Dean asked if we have information to tell students how to apply for and sit for certification. Not yet. Drs. Alsmara and Abuleil noted that there is some testing that can take place on campus, in our building. Dr. Kpo provided information about the COB as a certified training site. There is currently a site at the College of Education that has been attracting people from outside (i.e., off campus and not affiliated with CSU) to come to the CSU campus to take the certification exams. CSU is a testing site for professionals. "The problem is marketing. The first place to market is MIS alums. That is low-hanging fruit."

Dr. Coupet asked if it were possible to offer a course that prepares students for the exam itself. He asked if, after completing the courses, would students be ready to sit for the exams?

Dr. Alsamara indicated that we could prepare students to sit for the exam. "The biggest prize is the certificates ... If it can be done, it would be worthwhile to ensure that certification is met. For example, I have taken 10 practice exams. Anyone who sits for certification in these courses will be exposed to the practice exams. We can expose students to practice exams." It was also mentioned that we may wish to consider adding a course so that students can practice the exams.

The Dean asked, are practice exams provided by publishers? Yes and we can link to the site and download the exam.

Dr. Coupet asked, is this available in a secondary market? Yes. Further, we can help students access practice test resources.

It was also noted that we are using existing courses; thus, we need to ensure that students properly sequence the courses to complete their chosen concentrations.

Dr. Coupet moved to approve the proposal for the MIS concentration; Dr. Jackson seconded the motion. We are pending an e-vote from the entire body of College Curriculum Committee members.

Other Business

Students cannot minor in other functional areas in business. For example, an MIS student who may wish to minor in management cannot do so. Currently, we do not allow business majors to minor in other areas of business. We can come up with a model to create minors for students in the COB. This requires a rules change however.

If a student is a business major, many of the courses he/she takes are among the core courses. Students have to take additional courses to complete a minor. If a student is not a business major, he/she takes a set of courses in the core as well as outside of the core. The issue is that there may be "no room" (keeping students within 120 hours requirement) to add courses.

One member of the committee asked about this scenario. "If you minor in something, do courses have to be additive? Let's say if you take 5 classes for 15 credit hours. Let's say that 1 class is in the core. Is that okay for business majors? So you only have to take another 12 hours for a minor? But if you are a biology major, you have to take all 15 hours. If you are business major, you may have to take additional hours, right?"

Are we limited to the 120 hours? "The idea behind the minor is to give students the knowledge they are looking for."

Some of the programs outside of the COB allow students to complete a minor without completing more than 120 hours. In other programs, students may have to take more hours.

The Dean retrieved an old copy of the COB course catalog. In each program, there is a minor. For example, a minor requires the completion of 21 credit hours (this information was from an older catalog). "The rule was that you could not minor in another area in business if you were a business major. We have the courses now. We simply need to write the rules to allow business students to minor in another area within business."

Dr. Alsamara will draft a proposal for MIS (allowing students to pursue minors within the COB) and make a copy of that draft available to other areas within the COB. "The minor is approved. We just need a rule change." The current COB policy

says that if you are business major, you cannot minor in another business program.

Other Business

The Dean has a request for the entire committee. He will challenge each program to review and edit their course descriptions. The course descriptions have not been changed for some time (with the exception of MIS). We need to review the course descriptions and course prerequisites to make sure we are up to date. For example, for the elective he teaches (Entrepreneurial Finance), he needs to change the prerequisite(s). We may also want to consider adding courses to the Gen Ed requirements (e.g., a course like Introduction to Entrepreneurship).

We also need to update our College of Business website with the new requirements, since we have made significant changes to our curriculum. We also should have a process for doing so. Further, we need to upload the assessment reports to the COB website. We should revise all of our processes to ensure that everything goes to the website for updates. So we need to make plans for updates to the COB website (course descriptions, course requirements, degree requirements). Rosette Bryant has been trained on some of the website updates, so she can assist with some of these changes.

The question was asked again, for clarification, do we have a process? Yes. Changes to the website require that faculty fill out a form for the Dean's approval. "The reality is the process is just to send the Dean an email or a memo ... You have to have one person update, one person to approve the changes to the website. Professor Martin has approval for all curriculum changes. The form is available online" (not clear where).

The university has "pushed the administration of the website to the individual units. So, we can make changes to the COB website. When Rosette makes changes to the website, the Dean receives notification to approve those changes." If faculty wish to make changes, they may send an email directly to the Dean. Once the Dean approves the changes, Rosette may update the site to reflect those changes.

The College Curriculum Committee will begin to meet every month. Any College Curriculum Committee agenda items should be forwarded to Dr. Alsamara at kalsamar@csu.edu prior to the meeting.

Dr. Abuleil noted that "we are not happy with the results" from the assessment tests (ATS) that Dr. Kpo administers (i.e., our students are not scoring well on the assessment). "We do not teach students what is tested (the IT stuff)." Dr. Abuleil suggested that we teach "this stuff in 1360." Further he suggested that, "program advisors recommend this course as a business elective." We need to make this course (1360) a business elective.

Dr. Alsamara added, "our decisions about curriculum should be driven by market demand (versus certification testing). While true, the thought is, what do you (as the student) need to know? What are the basics that we need to know (part of what is in 1360)?"

Dr. Coupet moved and Professor Bibb seconded a motion to allow 1360 to be used as business elective course. Five committee members present voted in favor of this motion. A vote will be put forth for the committee members not present.

The meeting adjourned at 12:28 p.m.

Our next meeting will be in December, an announcement will be sent shortly with the exact date and location.

Minutes Submitted By,

Joni Jackson

-

College Of Business
Curriculum College Committee
Agenda
November 16, 2016
11:00 AM- 1:30 PM

- I Introductions
- II Old Business
 - Proposed Marketing Curriculum change [Dean Derrick Collins]
 - New University Gen Ed requirements [Dean Derrick Collins]
- III New Business
 - Offering a Certification in Management Information Systems [Dr. Abu Leil]
 - Minors for College of Business students.
- IV Other Business
- V Adjournment

Comprehensive Exam Comments

CHICAGO STATE UNIVERSITY
DEPARTMENT OF ACCOUNTING AND FINANCE
FINANCE 4700

-
- c) Agree somewhat
d) Agree
e) Strongly agree
- 4) The finance program has met my expectations
a) Strongly disagree
b) Disagree somewhat
c) Agree somewhat
d) Agree
e) Strongly agree
- 5) I would recommend the finance program to another student
a) Strongly disagree
b) Disagree somewhat
c) Agree somewhat
d) Agree
e) Strongly agree
- 6) This program could be improved by
more class offerings +
less course cancellations.
-
- 7) A company invests \$1,000 in a five-year, 20% zero-coupon bond, what is the duration of the bond?
a) 5 years, since it a zero-coupon bond
b) 4 years, since the duration of a discount bond has to be less than the years to maturity.
c) 6 years, since duration for a discount bond has to be greater than the years to maturity.
d) \$200
e) Not enough information to determine
- 8) If an investor is indifferent between \$1.00 today and \$1.33 in three years,:
f) \$1.00 must be the present value of \$1.33 in three years.
g) \$1.33 must be the future value of \$1.00 today.
h) the relevant interest rate is positive.
i) both a & b
j) all of the above
- 9) If a 30-year, \$1,000 bond has a 9% coupon and is currently selling for \$826, its yield to maturity is:
a) \$90
b) 9.0%, since the bond price is less than its face value.
c) 10.9%,

CHICAGO STATE UNIVERSITY
DEPARTMENT OF ACCOUNTING AND FINANCE
FINANCE 4700

- c) Agree somewhat
d) Agree
e) Strongly agree
- 4) The finance program has met my expectations
a) Strongly disagree
b) Disagree somewhat
c) Agree somewhat
d) Agree
e) Strongly agree
- 5) I would recommend the finance program to another student
a) Strongly disagree
b) Disagree somewhat
c) Agree somewhat
d) Agree
e) Strongly agree
- 6) This program could be improved by
student should be advised to take statistics classes
and any other classes that would be prevalent
for their success during and upon graduation from
the university
-
- 7) A company invests \$1,000 in a five-year, 20% zero-coupon bond, what is the duration of the bond?
a) 5 years, since it a zero-coupon bond
b) ~~4 years, since the duration of a discount bond has to be less than the years to maturity.~~
c) 6 years, since duration for a discount bond has to be greater than the years to maturity.
d) \$200
e) Not enough information to determine
- 8) If an investor is indifferent between \$1.00 today and \$1.33 in three years:
f) \$1.00 must be the present value of \$1.33 in three years.
g) \$1.33 must be the future value of \$1.00 today.
h) the relevant interest rate is positive.
i) both a & b
j) all of the above
- 9) If a 30-year, \$1,000 bond has a 9% coupon and is currently selling for \$826, its yield to maturity is:
a) \$90
b) 9.0%, since the bond price is less than its face value.
c) 10.9%,

CHICAGO STATE UNIVERSITY
DEPARTMENT OF ACCOUNTING AND FINANCE
FINANCE 4700

- c) Agree somewhat
d) Agree
e) Strongly agree
- 4) The finance program has met my expectations
a) Strongly disagree
b) Disagree somewhat
c) Agree somewhat
d) Agree
e) Strongly agree
- 5) I would recommend the finance program to another student
a) Strongly disagree
b) Disagree somewhat
c) Agree somewhat
d) Agree
e) Strongly agree
- 6) This program could be improved by
Having the required courses to succeed
available

- 7) A company invests \$1,000 in a five-year, 20% zero-coupon bond, what is the duration of the bond?
a) 5 years, since it a zero-coupon bond
b) 4 years, since the duration of a discount bond has to be less than the years to maturity.
c) 6 years, since duration for a discount bond has to be greater than the years to maturity.
d) \$200
e) Not enough information to determine
- 8) If an investor is indifferent between \$1.00 today and \$1.33 in three years:
f) \$1.00 must be the present value of \$1.33 in three years.
g) \$1.33 must be the future value of \$1.00 today.
h) the relevant interest rate is positive.
i) both a & b
j) all of the above
- 9) If a 30-year, \$1,000 bond has a 9% coupon and is currently selling for \$826, its yield to maturity is:
a) \$90
b) 9.0%, since the bond price is less than its face value.
c) 10.9%,

$$826 = \frac{90}{(1+YTM)^30} + \frac{1000}{(1+YTM)^30}$$