Appendix 12: CBA Assurance of Learning Report

Bachelor of Business Administration
Master of Business Administration
Master of Science in Management
### 12a. Bachelor of Business Administration (BBA)

#### Goals for the BBA Program

<table>
<thead>
<tr>
<th>Goal</th>
<th>Objectives/Areas of Objectives</th>
<th>AOL Sub-Committee</th>
</tr>
</thead>
</table>
| A – Students will be able to demonstrate they have integrated business knowledge and they will be able to apply core business fundamentals. | • Quantitative objectives tied to ETS Major Field Test in Business.  
• Students will achieve acceptable scores on ETS MFT in areas of Finance, Accounting, Marketing, etc. | Integrated Business Knowledge/Core Curriculum Committee |
| B – Students will understand the global nature of the contemporary business environment and demonstrate cross-cultural awareness. | • Understand the economy.  
• Understand cultural implications for global business.  
• Understand global trade theory.  
• Understand the tools of global business.  
• Understand the institutions of global business.  
• Understand the strategy of global business. | Globalization |
| C – Students will be able to use their writing and oral communication skills to persuade and mobilize support for “effective” decisions. | • Students will have proficient business writing skills (per rubric).  
• Students will have proficient business presentation skills (per rubric).  
• Students will have proficient persuasion skills (per rubric). | Business Communication |
| D – Students will be informed decision makers. | • Integrate ideas from multiple sources.  
• Appropriate and accurate use of data.  
• Process facts with minimal bias.  
• Challenge assumptions.  
• Enterprise-wide thinking.  
• Solve problems.  
• Creative solutions. | Decision-Making |
| E – Students will be able to analyze data using quantitative techniques. | • Be able to access, manipulate, and prepare data sets for analysis.  
• Understand and apply a methodological framework for business analytics.  
• Understand core statistical techniques.  
• Knowledgeable about data mining and decision modeling techniques and how they relate to business decisions.  
• Use necessary tools to create and interpret visualization of data. | Analytical Quantitative Reasoning |
| F – Students will understand ethical dilemmas and how to address them. | • Recognize ethical issues in business.  
• Consider the consequences of business decisions on all stakeholders. | Professional Development |
| G – Students will understand competencies required for effective leadership and collaboration and will develop these personal competencies. | • Work cooperatively with others in a team setting. | Professional Development |

Note: All objectives are to be determined by the committees. Some are the objectives listed are the ones already developed by the current committee and not expected to change. Others listed are suggestions per the feedback from the AOL faculty workshop.
12b. Assurance of Learning General Documents

Summary of Assurance of Learning Structure

Associate Dean

Assistant Dean (formerly)

Assistant Dean Grad

Assessment Officer (plus graduate assistant)

Director Undergrad

AoL subcommittees (most recent listed)

AOL Sub-Committees (2016-2017)

Core Curriculum/Integrated Business Knowledge
- Bible, Scott (Mgmt)
- Brisker, Eric (Fin)
- Conrad, Ed (Acct)
- Hallam, Steve (Mgmt)
- Hausknecht, Doug (Mrkt)
- Houser, Lauren (Mrkt)
- Matejkovic, John (Fin)
- McKelvey, Jim (Mrkt)
- Mukherjee, Debmalya (Mgmt)
- Nelson, Mike (Econ)
- Onita, Colin (Acct)
- Scarborough, Scott (Mgmt)

Analytical Quantitative Reasoning
- Balasubramnian, Bhanu (Fin)
- Beuk, Frederik (Mrkt)
- Bilier, Kevin (Mgmt)
- Liu, Liping (Mgmt)
- McHenry, Bill (Mgmt)
- Onita, Colin (Acct)
- Srinivasan, Mahesh (Mgmt)
- Vijayaraman, “Vijay” (Mgmt)

Globalization
- Chandra, Akhilesh (Acct)
- Figler, Bob (Mgmt)
- Gehani, Ray (Mgmt)
- Hausknecht, Doug (Mrkt)
- Thomas, Andrew (Mrkt)
- Wang, Li (Acct)

Business Communication
- deGregorio, Federico (Mrkt)
- DuWallidt, Betsy (Bus Comm Pract)
- Hallam, Steve (Mgmt)
- Makarius, Erin (Mgmt)
- Owens, Deb (Mgmt)

Decision Making
- Ash, Steve (Mgmt)
- Brisker, Eric (Fin)
- Calderon, Thomas (Acct)
- Conrad, Ed (Acct)
- Daugherty, Terry (Mrkt)
- Dey, Asoke (Mgmt)
- Gradisher, Suzanne (Fin)
- Thomson, James (Fin)

Professional Development
- Creamer, Kat (Intern Coord)
- Hamdani, Maria (Mgmt)
- Matejkovic, John (Fin)
- Platt, Andy (Exec Dir Corp Out)
- Schulte, Sheri (Mgmt)
- Smith, Kevin (Dir, ILA)

Graduate Programs
- Braga-Alves, Marcus (Fin)
- Dey, Asoke (Mgmt)
- Hauser, Bill (Asst Dean, Graduate)
- Kim, Il-woon (Acct)
- Owens, Deb (Mrkt)

Economics Department had separate coordinator from Arts & Sciences format: Ghosh, Sucharita
## AOL Sub-Committees Activity Summary

<table>
<thead>
<tr>
<th>Goal/Committee</th>
<th>Time periods</th>
<th>Activity</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated Business Knowledge</td>
<td>2011-2012; 2013-2014; 2015-2016</td>
<td>Collect data ETS Major Field Test in Business</td>
<td>Reported to faculty through Core Curriculum Committees and College Meetings</td>
</tr>
<tr>
<td>Analytical Quantitative Reasoning</td>
<td>2011-2012; 2013-2014; 2015-2016</td>
<td>Collect data ETS Major Field Test in Business</td>
<td>Created and administered tracking tests and modified instruction in areas of need</td>
</tr>
<tr>
<td></td>
<td>2011-2012; 2015-2016(?)</td>
<td>ETS Proficiency Profile (basic quantitative)</td>
<td>Compared performance within university (engineering, communication)</td>
</tr>
<tr>
<td>Professional Development</td>
<td>ongoing</td>
<td>Written rubric and feedback in core Accounting (2012-2014) or International Business (2014-2016) classes</td>
<td>Early assessment and feedback to students</td>
</tr>
<tr>
<td></td>
<td>2015-2016</td>
<td>Teamwork measured</td>
<td>Developed and shared contract for teams</td>
</tr>
<tr>
<td></td>
<td>2015-2016; 2016-2017</td>
<td>Ethics questions developed and tested to add to Major Field Test</td>
<td>Modified measures; feedback to faculty on ethical decision making</td>
</tr>
<tr>
<td>Globalization</td>
<td>2012-2017</td>
<td>Global questions developed and tested to add to Major Field Test</td>
<td>Feedback to core IB course and development of measures within that course</td>
</tr>
<tr>
<td>Decision Making</td>
<td>2012-2015</td>
<td>ETS Proficiency Profile (Critical thinking)</td>
<td>Compared performance within university (engineering, communication)</td>
</tr>
<tr>
<td></td>
<td>2015-2017</td>
<td>Changed focus to decision processes using business information</td>
<td>Development and initial evaluation of rubric</td>
</tr>
<tr>
<td>Graduate</td>
<td>2012-2017</td>
<td>Development of distinct goals and measures for specific graduate programs</td>
<td></td>
</tr>
</tbody>
</table>
Refreshing and Updating Learning Goals

Initial List of Goals
The initial goals were created prior to the establishment of our college-wide Assurance of Learning committee structure. These goals were proposed by the deans and chairs in consultation with the undergraduate curriculum committee. This was part of a 2009 curriculum revision process that used the college mission to derive goals and create a curriculum that would enable students to achieve the goals.

<table>
<thead>
<tr>
<th>Goal</th>
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<tbody>
<tr>
<td>Knowledge and understanding of fundamentals</td>
</tr>
<tr>
<td>Demonstrate ability to apply fundamentals</td>
</tr>
<tr>
<td>Understand, appreciate global nature of business</td>
</tr>
<tr>
<td>Have effective written communication skills</td>
</tr>
<tr>
<td>Have effective oral communication skills</td>
</tr>
<tr>
<td>Demonstrate Critical Thinking</td>
</tr>
<tr>
<td>Work effectively in diverse teams</td>
</tr>
<tr>
<td>Use information technology and knowledge manage</td>
</tr>
<tr>
<td>Understand, identify, and address ethics</td>
</tr>
<tr>
<td>Understand and appreciate leadership</td>
</tr>
</tbody>
</table>

Implementation and Operationalization
In March of 2012 an experienced AoL administrator from a comparably sized and positioned university, Ball State University, visited the College. Dr. Susan Mantel helped to organize, instruct and motivate the members of the faculty and some staff to implement a college-wide effort to define objectives and measures for each of the above goals. Dr. Mantel advised that the number of goals was rather large but the college made the conscious decision to investigate each and adjust as we found what was workable.

First Refresh Meeting
On September 27, 2013 an afternoon retreat was held to evaluate progress toward goal definition and measurement. The 35 faculty members who attended all or part collaborated on refreshing the initial goals to a somewhat more workable number and configuration. Believing all to be important, the college again chose to experiment with measurement and tracking to determine what would be feasible.

<table>
<thead>
<tr>
<th>2013 Refreshed Goal</th>
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</thead>
<tbody>
<tr>
<td>Demonstrate integrated business knowledge</td>
</tr>
<tr>
<td>Demonstrate a global perspective and cross-cultural awareness</td>
</tr>
<tr>
<td>Use writing and oral communication skills to persuade and mobilize action</td>
</tr>
<tr>
<td>Be informed decision makers</td>
</tr>
<tr>
<td>Analyze data using quantitative techniques</td>
</tr>
<tr>
<td>Recognize and understand how to address ethical concerns</td>
</tr>
<tr>
<td>Develop leadership and collaboration competencies</td>
</tr>
</tbody>
</table>

Second Refresh Meeting
Having had over three years of experience with the refreshed goals and in light of renewed interest in assessment at the university level in response to reviews and a focused visit by the Higher Learning Commission, the college staged a summit/retreat on March 17, 2017 to review progress. Of the above goal areas for the undergraduate program each had made significant progress with the exception of “Be informed decision makers.” One breakout group at the summit addressed concerns with measurement in that area. The next step is to assure that measurement and reporting processes are sustainable in light of available human and financial resources.
## CBA ASSURANCE OF LEARNING REPORT

### AOL Metrics & Actions

<table>
<thead>
<tr>
<th>Committee/Learning Goal</th>
<th>Metric and criterion</th>
<th>Collected When</th>
<th>Closing the Loop</th>
<th>2017-2018 Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Integrated Business Knowledge (no chair)</strong></td>
<td>ETS Major Field Test in Business. Goal is to meet or exceed national or comparison school scores in sub-content areas. Areas include accounting, economics, management, finance, and marketing.</td>
<td>Scheduled every other year. Administered 2013-2014; 2015-2016. Average scores for 2015-2016 low in initial analyses. Further analysis in progress.</td>
<td>2013-2014 results overview reported to CBA faculty; detailed report used by Core Curriculum Committee; participation uneven across class sections and semesters.</td>
<td>Administer in Fall and Spring Strategic Management courses; provide participation incentive to students.</td>
</tr>
<tr>
<td><strong>Analytical Quant Reasoning (Vijayaraman)</strong></td>
<td>Initial use of ETS MFT quantitative business analysis and information systems questions.</td>
<td>Diagnostic tests collected 2013-2014 and 2015-2016. Began additional in-house testing in 2013 (Osyk). Testing in 6500:305 to assess retention from previous classes. Currently each semester.</td>
<td>Identified areas such as hypotheses testing as issue. Tracking Learning objectives through quantitative sequence in core. Included identifying learning objectives relevant for analytics in subject areas.</td>
<td>TBD; Determine needs and application of quantitative tools in other courses, not part of “quantitative” sequences.</td>
</tr>
<tr>
<td><strong>Communication (DuWalldt and Owens)</strong></td>
<td>Use CBA Writing Rubric and CBA Oral Presentation Rubric. Goal = average score of 3 or higher.</td>
<td>Measures taken in both International Business 6800:305 and Strategic Management 6500:490. Currently done on ongoing basis by certain instructors (Hausknecht, Hallam) with feedback.</td>
<td>Coordinating rubrics and evaluation tools among courses. Communication officer as resource and evaluating 6800:305 presentations. Communication resources available online to students in all CBA classes.</td>
<td>Use faculty panels to assess sample senior written and oral communications.</td>
</tr>
</tbody>
</table>
## CBA ASSURANCE OF LEARNING REPORT

<table>
<thead>
<tr>
<th>Professional Development-- Ethics (Schulte)</th>
<th><strong>Initial use of ETS MFT</strong> Legal and social issues questions. Derived and pre-tested questions on Ethics. Locally originated questions being calibrated.</th>
<th>ETS-MFT only 2013-2014; added questions to MFT 2015-2016. Tested questions alone in multiple formats (in-class, online) Fall 2016.</th>
<th>Results have been disappointing with the locally originated questions. May be a testing artifact, question construction or indicative of a true learning deficit. May replicate in Spring 2017 with de-briefing to diagnose.</th>
<th>May consider some questions from HEighten test of Civic Engagement. Early feedback from students was not encouraging. Knowledge areas too general for business. Refine scenario questions and testing format.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Development— Leadership and Teamwork (Schulte)</td>
<td>Initially, direct measures of team-member satisfaction. Added measurement of productivity. Survey of internship employers to gauge workplace teamwork.</td>
<td>Employer survey spring 2015. Scenario questions added to Spring 2016 ETS MFT. Stand-alone tests Fall 2016 and Spring 2017.</td>
<td>Team contracts used in Fall 2015 with grades as criterion. Feedback to CBA faculty on use of teams and groups.</td>
<td>Need to re-examine learning outcomes and objectives. Need to engage students in direct measures.</td>
</tr>
<tr>
<td>Decision Making (Dey – new chair)</td>
<td>After several false starts, committee recommended simple rubric. Rubric needs to be calibrated to set criterion levels.</td>
<td>Rubric was pilot tested on prior cases in March 2017. To be refined so that cases can be evaluated in Academic year 2017-1018.</td>
<td></td>
<td>Need better coordination with capstone course instructors.</td>
</tr>
</tbody>
</table>
### Alignment of University General Education Learning Goals and CBA Learning Goals

<table>
<thead>
<tr>
<th>University Outcome Goals (undergraduate)</th>
<th>CBA Learning Goals and Objectives</th>
<th>Timetable for Measurement and Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Skills and Information Literacy</td>
<td>Communication</td>
<td>2011-2012; even years</td>
</tr>
<tr>
<td>Critical Thinking and Complex Reasoning</td>
<td>Quantitative Analysis</td>
<td>2012-2013; odd years</td>
</tr>
<tr>
<td>Natural Sciences, Social Sciences, Arts and Humanities</td>
<td>Ethics and Integrated Business Knowledge (may merge into one)</td>
<td>2011-2012; even years</td>
</tr>
<tr>
<td>Responsible Citizenship in an Interconnected World</td>
<td>Globalization</td>
<td>2012-2013; odd years</td>
</tr>
<tr>
<td>College-specific upper level goals</td>
<td>Leadership and Team Effectiveness (may merge into one)</td>
<td>2013-2014; even years</td>
</tr>
</tbody>
</table>
Closing the Loop Example

Learning Goal: Analyze Data Using Quantitative Techniques

Data Collected:

1. Fall 2013; Spring 2014; Summer 2014; ETS major field exam Fall 2015; Spring 2016; Summer 2016
2. 2012; 2014; 2016 EBI Survey
   To what degree did your business program enhance your ability to...  
<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2014</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>... collect relevant data?</td>
<td>N/A</td>
<td>5.56</td>
<td>5.53</td>
</tr>
<tr>
<td>... interpret data in a real-world context?</td>
<td>N/A</td>
<td>5.53</td>
<td>5.52</td>
</tr>
<tr>
<td>... statistically analyze data?</td>
<td>5.65</td>
<td>5.41</td>
<td>5.37</td>
</tr>
</tbody>
</table>
3. Fall 2013; Fall 2014; Fall 2015; Spring 2015 key statistical topics quiz consisting of 20 questions (n=170 Spring 2015; total n=600)

Problems Identified:

<table>
<thead>
<tr>
<th>Most missed items on quiz:</th>
<th>Actions taken:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis testing/stating null and alternative hypotheses.</td>
<td>More examples/practice homework given in 6500:304 and 6500:305.</td>
</tr>
<tr>
<td>Definition of statistical inference.</td>
<td>More emphasis placed on this concept and related terminology in 6500:304 and added to final exam.</td>
</tr>
<tr>
<td>Slope and correlation coefficient in linear regression.</td>
<td>Relationship between the two emphasized in 6500:304 and 6500:305, and more visual examples provided in Excel/Megastat and JMP.</td>
</tr>
<tr>
<td>Continuous vs discrete probability distributions.</td>
<td>Added homework assignments in 6500:304 and to final exam.</td>
</tr>
<tr>
<td>Chi-Square goodness of fit tests.</td>
<td>Required all instructors to cover the topic (had not been occurring), and added questions to final exam.</td>
</tr>
<tr>
<td>Assumptions in linear regression.</td>
<td>Stress more in 6500:304 and reinforce in 6500:305.</td>
</tr>
<tr>
<td>Length of time between taking 6500:304 and 6500:305 impacts score on statistical topic quiz.</td>
<td>Faculty and academic advisors emphasize taking 6500:305 the semester immediately following 6500:304.</td>
</tr>
<tr>
<td>Weakest performance on ETS MFE was “Counting Rules”.</td>
<td>Faculty determined this is not an area of emphasis in our coursework and it should not be emphasized more at the expense of other topics.</td>
</tr>
</tbody>
</table>

Results as Shown by Data Collection:

Fall 2014 – Average score=49.2% (SD=3.1)  
Spring 2015 – Average score=56.8% (SD=2.9)

- Improvement in areas of linear regressions and Chi-Square distributions
- No improvement in areas of setting up null hypotheses (still the most missed items – others remain strong)
- Increasing numbers of students are taking 6500:305 immediately following 6500:304 (133 of 170 in Spring 2015)
Supporting Materials for Quantitative Technique “Closing the Loop” Example

Analytical Quantitative Reasoning (AQR) Committee Report to the CBA 10/30/15
Committee: Balasubramnian, Beuk, Djuric, Liu, McHenry, Onita, Osyk, Srinivasan, Vijayaraman (chair)

**CBA Goal E: Students will be able to analyze data using quantitative techniques**

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Activities to Date/Closing the Loop</th>
<th>Future Plans</th>
</tr>
</thead>
</table>
| 1. Access, manipulate, and prepare data sets for analysis | 1. Instructors in 6200:250, 6500:304, and 6500:305 use common syllabi to ensure that students are taught these skills.  
2. Instructors in 6500:304 use a common case that requires these skills. Instructors in 6500:305 use team assignments that require these skills. | 1. Analyze what Excel skills are needed in courses that require 6200:250 as a prerequisite  
2. Consider doing an assessment in another course (6500:304?) on needed Excel skills. |
| 2. Understand and apply a methodological framework for business analytics | 1. Instructors in 6500:305 applied a consistent framework (life cycle approach) across course assignments |  
| 3. Understand core statistical techniques | 1. Assessment quiz on key statistical topics administered in 6500:305 every semester Fall 2013 – Fall 2015.  
Identified topical areas that need more emphasis in 6500:304 and review in 6500:305 (e.g., hypothesis testing)  
Identified inconsistencies in materials taught across 304 sections & rectified  
Identified when students perform better (when take 304 Fall/305 Spring, early in academic career)  
2. Results of ETS, assessment quiz, and TAG requirements are shared with instructors each semester and strategies for improvement are discussed. | 1. Continue data collection on assessment quiz  
2. Consider adding statistical questions to the ETS MFT  
3. Interpret findings in support of suggesting sequencing of CBA core classes to ensure students have appropriate background in statistics concepts before taking higher level electives.  
4. Analyze what statistical skills are needed in courses that require 6500:304 as a prerequisite* |
| 4. Knowledgeable about data mining and decision modeling techniques and how they relate to business decisions | 1. Instructors in 6500:305 have common syllabi and common course objectives that cover these topics. | 1. Analyze what data mining skills are needed in courses that require 6500:305 as a prerequisite* |
| 5. Use necessary tools to create and interpret visualizations of data | 1. JMP workshop on 3/17/15 exposed participants to software tool used in 6500:305. On 3/19/15 Marketing Department also adopted the use of JMP in its courses  
2. All CBA students use Excel and JMP for visualization in core courses (6200:304, 6500:304, 6500:305) |  

*The committee has discussed collecting data and creating a report on what quantitative/analytic skill sets are needed across the curriculum.

**Potential process (Spring 2016):**
1. Identify the courses taught by all four departments where Excel/Statistics/Analytics are taught
2. Get copies of the syllabus (latest) from faculty who are teaching these courses
3. Ask GA to make an initial list of topics covered from the syllabus
4. Share this list with the faculty who teach those courses and ask them to make necessary corrections/additions, etc.
5. Develop a survey with topics currently taught in 6200:250, 6500:304, 6500:305 and distribute to ALL CBA faculty
6. Identify the skill gaps based on faculty expectations and topics currently being taught and “connect the dots”
7. Committee meets to discuss how curriculum may need updating, how and where to assess needed skills
8. Implement the decisions, collect the needed data, analyze the data, generate report and share this with the administration

Potential future activity (time frame TBD)
Identify where students do not have the necessary skill sets (Excel, Statistics) to succeed in classes and develop “boot camps” for targeted interventions in order for students to succeed. This could utilize short online courses already available.

Business Statistics/Business Analytics Assurance of Learning
Meeting Minutes 9/24/14 10:30 am
Present: Kevin Blier, Barb Osyk, Lillian Prince, B.S. Vijayaraman
The 6500: 304/305 instructors met to discuss the results of the 304 assessment quiz (administered in 305), the 304 final exam, the ETS exit test, and the TAG requirements.

A. 304 Assessment Quiz
We reviewed the results of the assessment quiz, which was taken by all students in 6500:305 at the beginning of Fall semester. This 20 question quiz was modified from the one administered over the past year. Our discussion focused on the topical areas related to the seven questions missed the most often. Specific strategies for improvement in these areas include:

1. **Hypothesis testing/statning null & alternate hypotheses.** More examples/practice/homework will be given in 304 and 305 to strengthen this area.
2. **Definition of statistical inference.** More emphasis will be placed on this concept and related terminology in 304. This question will be added to the final exam in 304 during fall 2014.
3. **Slope and correlation coefficient in linear regression.** The relationship between the slope and the correlation coefficient will be emphasized in both 304 and 305. We will provide more visual examples in Excel/Megastat (in 304) and in JMP (in 305) to strengthen the students’ understanding.
4. **Continuous vs. discrete probability distributions.** This topic will be reinforced through homework and exam assignments in 304. We will add a related question to the final exam in 304.
5. **Chi-Square goodness of fit tests.** It became apparent last year that not all instructors were covering this topic in 304, which may partially explain the poor results from this recent quiz. Currently all instructors are covering Chi-Square tests (goodness of fit and independence) in 304, so we believe the performance should improve on this topic. We will add questions to the final in 304 and will monitor performance.
6. **Descriptive statistics/skewness.** More examples, graphs, and explanations will be provided in both 304 and 305. These topics will be incorporated into homework and case assignments in 304.
7. **Assumptions in simple regression.** We will attempt to stress this more in 304 and reinforce in 305. This will be incorporated into case assignments in 304.

We will be moving the assessment quiz to a Springboard environment in Spring 2015. That will enable us to collect more data. We will also add 10 questions to the final exam in 305 out of the 20 that are currently contained on the assessment quiz so that we can do “pre-test/post-test” analysis. Lillian, Vijay,
and Barb will each choose 10 questions independently and we will then meet before the end of the semester to select the questions to be included on the final exam in 305.

**B. 304 Final Exam**

Results were shared from the common final that was administered in Spring 2014 in all land based sections of 304. Barb and Kevin will meet the week of September 30th to update and revise this exam based on our discussions today. The exam will be reduced to 50 questions (from 60), and questions will be added on Chi-Square tests (Goodness of Fit and Independence).

**C. ETS Major Field Test Results**

We reviewed the results of the ETS test, which was administered in Fall of 2013. The area of weakest performance was “Counting Rules” which is not an area of emphasis. We decided that it should not be given more emphasis in 304 at the expense of other topics. Most of the other topic areas were addressed in our earlier discussions of the assessment quiz and will be addressed. The exceptions are time series forecasting (which is covered in 330 and not in 304) and conditional/joint probabilities. We discussed reinforcing the concepts related to conditional/joint probabilities when teaching market basket analysis in 305.

**D. TAG requirements**

We briefly reviewed the TAG requirements and believe we continue to be compliant with the requirements through material covered in 304 and 305 and (to a lesser extent) in 6200:250. The one area that we do not specifically address in our other assessment materials is the various types of sampling. Lillian provided a “Happyville” exercise that we can use in our classes to demonstrate the various types of sampling.

Meeting was adjourned at noon.
CLOSING THE LOOP EXAMPLE

**Learning Goal:** Use Writing and Oral Communication Skills to Persuade and to Mobilize Action

**Data Collected:**
- EBI Survey 2010; 2012
  - To what extent did the business program enhance your...  
    - ... oral presentation skills?  
      - 2010: 5.87  
      - 2012: 5.60  
    - ... writing skills?  
      - 2010: 5.35  
      - 2012: 4.91

**Problem Identified:** Lack specific curricular and/or co-curricular resources for enhancing oral, written, and interpersonal communication skills.

**Actions Taken:**
- Business Communication Practitioner hired
- Business writing and presentation rubrics created and adopted by CBA faculty
- Practitioner embedded instruction in Core courses
- Practitioner provides individual and team coaching
- Springboard site created for business communication resources and self-instruction
- Non-credit business communication workshops each semester
- One credit "Advanced Presentation Skills" course

**Data Collected:**
1. EBI Survey 2014; 2016
   - To what extent did the business program enhance your...  
     - ... oral presentation skills?  
       - 2014: 5.79  
       - 2016: 5.59  
       - Goal: 5.50  
     - ... writing skills?  
       - 2014: 5.13  
       - 2016: 4.97  
       - Goal: 5.50
2. Presentation rubric scores on presentations given in 6500:490 in Fall 2013; Spring 2014; Fall 2014; Spring 2015; Fall 2015 and presentation rubric scores on presentations given in 6800:305 in Spring 2015; Fall 2015 (n=450 students).

**Problems Identified:**
- Working with introductions of any sort
- Conclusions are too thin; transitions missing between points
- Poor time management and stumbling over words – lack of out loud practicing
- Addressing numbers within the presentation – reading numbers; providing context
- Lack of effective and appropriate eye contact
- Responding to questions effectively

**Actions Taken:**
- Provide rubrics to students with course materials (post on Springboard) and call attention to them prior to presentations
- Video tape presentations and review them with students – increases extent to which students take presentations seriously
- Develop more fine-tuned assignments – tell students to approach a minor case study presentation specifically as a persuasive presentation, instead of an informative speech to help students focus on providing better content and more forceful conclusions
- Provide more detailed instructions for the “Country Presentations” in 6800:305
- Before presentations begin in 6500:490, Business Communication Practitioner talks to each class about presentation expectations
- Expanded class discussion by Business Communication Practitioner about how to answer questions during presentations
• Expanded time devoted to, and depth of, class discussion with Business Communication Practitioner about the importance of good introductions

Results as Shown by Data Collection:
A 10 percent improvement in content and structure was observed. This included measure of the content in the presentation body, conclusion and organization. Eye contact also was 10% higher. A 15% improvement was observed in how well the students considered audience needs. This includes weaving touchpoints that would help an audience understand the point and/or other concepts better.

Supporting Material for Oral Communication “Closing the Loop” Example

Oral Communication Skills
A small team of faculty and staff developed oral communications and business writing rubrics in 2013. The group shared the rubrics with the faculty, intending the rubrics to be used by those instructors who do not have rubrics.

Specifically, the oral communications rubric has been used in one professor’s Strategic Management capstone classes (6500-490) since fall 2013, one Management Principles class in fall 2016, and in on professor’s International Business (6800-305) classes since spring 2015.

Starting in spring 2014, we began taping students in the Capstone class to support the goals of improving presentation skills. In videos, students can see what they do well and what they should improve. Capstone students are required to meet with the Business Practitioner, Communications, to receive feedback and to view the video.

Approximately 700 student presentations have been reviewed. In the International Business class, students receive extra credit for obtaining feedback. About 250 students’ presentations have been viewed.

The oral presentation rubric has been operationalized into a detailed feedback scoresheet for these classes, with scoring from one (inadequate) to four (very effective). All students who attend a feedback session receive a copy of their feedback.

In Spring 2016, the scoresheet was edited to include short, informative statements, including a guideline regarding amount of text on the slides and how to manage on-slide sources.

Using the Spring Semester 2017 Strategic Management Capstone class scores to compare to previous capstone classes yielded some improvements. During student feedback appointments, the Business Practitioner asks students their majors, year in school, and whether they have had a presentation taped in another class and whether the student reviewed the tape. The 2017 class had 10 students out of 35 who had participated in the International Business feedback in a previous semester.

A 10 percent improvement in content and structure was observed. This included measure of the content in the presentation body, conclusion and organization. Eye contact also was 10% higher. A 15% improvement was observed in how well the students considered audience needs. This includes weaving touchpoints that would help an audience understand the point and/or other concepts better.

At the same time, some scores were lower than in previous classes, such as for vocal volume, and introductions. The small room likely led students to be softer spoken. Students have routinely abbreviated introductions in recent Strategic Management classes because serious penalties were associated with student presentations that went over the prescribed time. Students’ decisions to shorten introductions is likely the correct approach in a less-formal presentation with goals that were well-understood by the class. Scores in other aspects were negligibly different.
Presentation improvements could be attributed to the opportunities available to students throughout their college careers. The class of 2017 were freshmen when the CBA hired a number of support staff to assist in student development. Previous feedback sessions via International Business also could have assisted students in some skills improvements.
### 2016 EBI/Skyfactor Survey Results

**Benchmarking**

<table>
<thead>
<tr>
<th>Benchmarking Details</th>
<th>Respondents</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Carolina State; University of Illinois at Chicago; Youngstown University; Penn State University, Harrisburg; University of New Orleans</td>
<td>521</td>
<td>32.30%</td>
</tr>
<tr>
<td>Carnegie Classification schools</td>
<td>5,221</td>
<td>61.90%</td>
</tr>
<tr>
<td>All Institutions (108)</td>
<td>18,369</td>
<td>57.40%</td>
</tr>
<tr>
<td>UA CBA</td>
<td>252</td>
<td>84%</td>
</tr>
</tbody>
</table>

### Major Indicators of Performance

**NOTE:** 5.5/7 or 75% is the goal for means/performance scales.

<table>
<thead>
<tr>
<th>Overall Satisfaction</th>
<th>CBA 2016</th>
<th>Select 6</th>
<th>Carnegie</th>
<th>All</th>
<th>CBA 2014</th>
<th>CBA 2012</th>
<th>CBA 2010</th>
<th>CBA 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall learning</td>
<td>75%</td>
<td>81.3%</td>
<td>78.5%</td>
<td>78.3%</td>
<td>78.2%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**High Impact Factors**

CBA 2016 | CBA 2014 | Select 6 | Carnegie | All |
---|---|---|---|---|
Career Services | 64.2% | 63.5% | 70.2% | 63.8% | 63.3% |
Classmates | 70.3% | 72.4% | 71.5% | 71.2% | 71.3% |
Quality of Instruction | 71.7% | 73.7% | 74.3% | 72% | 72.5% |
Facilities | 71.2% | 73.7% | 78.3% | 77.7% | 76% |
Practical Competencies | 72.5% | 75.1% | 74.5% | 73.8% | 73.8% |
Ethical and Legal Responsibilities | 78.8% | 79.8% | 78.3% | 79.3% | 79% |
Organizational Behaviors | 77.2% | 77% | 76.8% | 76.7% | 77.3% |

### Comparison between 2012 and 2016 EBI/Skyfactor Surveys

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing skills</td>
<td>4.91</td>
<td>(1.31)</td>
<td>4.97</td>
<td>(1.44)</td>
</tr>
<tr>
<td>Oral presentation skills</td>
<td>5.6</td>
<td>(1.01)</td>
<td>5.59</td>
<td>(1.32)</td>
</tr>
<tr>
<td>Critical thinking</td>
<td>5.59</td>
<td>(1.23)</td>
<td>5.79</td>
<td>(1.13)</td>
</tr>
<tr>
<td>Ability to define problems</td>
<td>5.57</td>
<td>(1.11)</td>
<td>5.78</td>
<td>(1.17)</td>
</tr>
<tr>
<td>Problem solving</td>
<td>5.66</td>
<td>(1.11)</td>
<td>5.8</td>
<td>(1.20)</td>
</tr>
<tr>
<td>Ability to statistically analyze data</td>
<td>5.65</td>
<td>(1.18)</td>
<td>5.37</td>
<td>(1.24)</td>
</tr>
<tr>
<td>Ability to effectively use information technology</td>
<td>5.11</td>
<td>(1.41)</td>
<td>5.17</td>
<td>(1.51)</td>
</tr>
<tr>
<td>Ability to manage information technology</td>
<td>4.97</td>
<td>(1.48)</td>
<td>5.02</td>
<td>(1.52)</td>
</tr>
<tr>
<td>Ability to work in teams</td>
<td>5.29</td>
<td>(1.34)</td>
<td>5.63</td>
<td>(1.31)</td>
</tr>
<tr>
<td>Ability to be an effective manager</td>
<td>5.38</td>
<td>(1.20)</td>
<td>5.61</td>
<td>(1.22)</td>
</tr>
<tr>
<td>Ability to be an effective leader</td>
<td>5.56</td>
<td>(1.14)</td>
<td>5.7</td>
<td>(1.20)</td>
</tr>
</tbody>
</table>

**Note:** These are the only factors present in both the 2012 and 2016 surveys.
Summary of Findings from ETS Major Field Test in Business 2013 – 2016

Choice and use of the test
Up to 2013, an in-house derived test of topics from the CBA core curriculum was used to measure business knowledge. The test had been constructed by faculty members who had major responsibility for the core courses and tended to use exam questions from those courses. As noted in a previous AACSB visit, the scores were not comparable against any standard. After some search, the ETS Major Field Test in Business was adopted as the major indicator of knowledge retained by the end of students’ program. Use of the test and suggestions for interpretation and management of student expectations and effort are all frequent topics in the AACSB Member Forum for Assessment.

Our results
The senior capstone course, Strategic Management, is used to collect assessment data on an ongoing basis. Each semester some kind of assessment participation (Major Field Test, Proficiency Profile, in-house measures) is included in the course. Final participation rates vary somewhat by course and semester. Summer participation is low (n=38 in 2015) compared to fall and spring (ranging from n=101-143) or about 80% participation. The measures have been administered in class, in a central testing facility and we have begun to pilot at-home testing with lockdown browsers.

The scores below are segmented into 9 subjects: Accounting, Economics, Management, Quantitative Business Analysis, Finance, Marketing, Legal and Social Environment, Information Systems, and International Issues. From the Spring 2014 Semester to the Summer 2014 semester there is an improvement in every category besides Marketing and Legal & Social Environment. In the following year, 2015-2016, there is a score decrease in every category.

<table>
<thead>
<tr>
<th>Question Category</th>
<th>Fall 2013</th>
<th>Spring 2014</th>
<th>Summer 2014</th>
<th>Fall 2015</th>
<th>Spring 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>45</td>
<td>44</td>
<td>45</td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td>Economics</td>
<td>41</td>
<td>43</td>
<td>44</td>
<td>36</td>
<td>38</td>
</tr>
<tr>
<td>Management</td>
<td>57</td>
<td>57</td>
<td>57</td>
<td>52</td>
<td>50</td>
</tr>
<tr>
<td>Quantitative Business Analysis</td>
<td>37</td>
<td>35</td>
<td>38</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Finance</td>
<td>45</td>
<td>46</td>
<td>48</td>
<td>41</td>
<td>40</td>
</tr>
<tr>
<td>Marketing</td>
<td>60</td>
<td>58</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Legal &amp; Social Environment</td>
<td>60</td>
<td>62</td>
<td>57</td>
<td>53</td>
<td>55</td>
</tr>
<tr>
<td>Information Systems</td>
<td>51</td>
<td>48</td>
<td>53</td>
<td>46</td>
<td>44</td>
</tr>
<tr>
<td>International Issues</td>
<td>41</td>
<td>40</td>
<td>41</td>
<td>39</td>
<td>39</td>
</tr>
</tbody>
</table>

Response and interpretation
Based on reviews of the initial test administration supplementary questions were derived in the areas of ethics (Legal and Social Environment) and globalization (International Issues) by the respective committees to enable a better diagnosis within those areas. A deeper dive into the 2013-2014 data in the Quantitative Business Analysis area prompted a review of topic coverage in statistics classes and the evolution of a tracking test from one course to the next course in the sequence.

At the Spring 2017 Assessment Summit, the decline in scores was discussed and concerns were raised regarding testing environment, fatigue, incentives and effort.

Also in Spring 2017 the CBA participated in a pilot administration of the ETS HEIghten Test of Intercultural Competency and Diversity as a possible supplement to the cultural competency questions
in the Major Field Test and those added by the faculty. Students who participated found the test to be manageable (less than 40 minutes per session) and relevant. We do not have performance results as of this writing.

**Content Area Analysis:**
The score report can be further broken down into 29 content area categories. The table below presents the categorical change by semester. The categories are listed with their respective averaged scores.

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Fa13</th>
<th>Sp14</th>
<th>Su15</th>
<th>Fa15</th>
<th>Sp16</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Basic Economic Concepts</td>
<td>23.2</td>
<td>24.2</td>
<td>24.5</td>
<td>20.6</td>
<td>18.1</td>
</tr>
<tr>
<td>2 Business Information Systems</td>
<td>44.4</td>
<td>41.3</td>
<td>45.7</td>
<td>41.2</td>
<td>36.9</td>
</tr>
<tr>
<td>3 Business Relationships</td>
<td>40.5</td>
<td>42.7</td>
<td>41.8</td>
<td>36.6</td>
<td>37.5</td>
</tr>
<tr>
<td>4 Corporate Finance</td>
<td>32.8</td>
<td>35.9</td>
<td>33.0</td>
<td>30.8</td>
<td>31.3</td>
</tr>
<tr>
<td>5 Entrepreneurship</td>
<td>65.7</td>
<td>76.2</td>
<td>67.1</td>
<td>61.4</td>
<td>58.0</td>
</tr>
<tr>
<td>6 Ethical/Social</td>
<td>37.3</td>
<td>47.0</td>
<td>46.2</td>
<td>41.4</td>
<td>34.0</td>
</tr>
<tr>
<td>7 Financial Accounting</td>
<td>44.1</td>
<td>46.4</td>
<td>40.3</td>
<td>40.2</td>
<td>34.2</td>
</tr>
<tr>
<td>8 Identifying attractive markets</td>
<td>71.1</td>
<td>69.9</td>
<td>66.5</td>
<td>66.5</td>
<td>67.3</td>
</tr>
<tr>
<td>9 Information Systems in Business and Society</td>
<td>81.7</td>
<td>80.1</td>
<td>78.3</td>
<td>71.2</td>
<td>68.3</td>
</tr>
<tr>
<td>10 Information Technology Concepts</td>
<td>39.6</td>
<td>37.1</td>
<td>41.4</td>
<td>37.3</td>
<td>35.7</td>
</tr>
<tr>
<td>11 International Accounting</td>
<td>22.4</td>
<td>20.8</td>
<td>19.6</td>
<td>19.7</td>
<td>29.4</td>
</tr>
<tr>
<td>12 International and Cross Cultural Management</td>
<td>50.1</td>
<td>47.1</td>
<td>44.7</td>
<td>49.5</td>
<td>44.9</td>
</tr>
<tr>
<td>13 International Economics</td>
<td>41.5</td>
<td>46.2</td>
<td>41.4</td>
<td>40.6</td>
<td>43.4</td>
</tr>
<tr>
<td>14 International Finance</td>
<td>40.5</td>
<td>39.9</td>
<td>46.9</td>
<td>38.4</td>
<td>39.8</td>
</tr>
<tr>
<td>15 International Marketing</td>
<td>42.9</td>
<td>40.8</td>
<td>42.6</td>
<td>42.8</td>
<td>45.0</td>
</tr>
<tr>
<td>16 Investments</td>
<td>59.5</td>
<td>57.4</td>
<td>55.2</td>
<td>52.5</td>
<td>50.6</td>
</tr>
<tr>
<td>17 Legal Environment</td>
<td>68.4</td>
<td>71.9</td>
<td>69.4</td>
<td>60.1</td>
<td>65.4</td>
</tr>
<tr>
<td>18 Macroeconomics</td>
<td>22.4</td>
<td>27.2</td>
<td>23.7</td>
<td>21.2</td>
<td>22.5</td>
</tr>
<tr>
<td>19 Management Principles</td>
<td>45.9</td>
<td>46.2</td>
<td>43.6</td>
<td>41.2</td>
<td>37.5</td>
</tr>
<tr>
<td>20 Managerial Accounting</td>
<td>49.3</td>
<td>45.2</td>
<td>47.9</td>
<td>41.2</td>
<td>42.2</td>
</tr>
<tr>
<td>21 Microeconomics</td>
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<td>60.1</td>
<td>58.3</td>
<td>51.7</td>
<td>53.7</td>
</tr>
<tr>
<td>22 Operations Management</td>
<td>56.7</td>
<td>61.5</td>
<td>52.5</td>
<td>50.4</td>
<td>53.3</td>
</tr>
<tr>
<td>23 Organizational Behavior</td>
<td>48.1</td>
<td>44.3</td>
<td>56.1</td>
<td>44.0</td>
<td>45.3</td>
</tr>
<tr>
<td>24 Probability and Statistics</td>
<td>33.7</td>
<td>32.1</td>
<td>34.0</td>
<td>31.9</td>
<td>33.9</td>
</tr>
<tr>
<td>25 Quantitative Operations and Management Techniques</td>
<td>41.8</td>
<td>41.6</td>
<td>44.9</td>
<td>41.2</td>
<td>43.9</td>
</tr>
<tr>
<td>26 Regulatory Environment</td>
<td>78.2</td>
<td>75.0</td>
<td>73.7</td>
<td>67.2</td>
<td>66.3</td>
</tr>
<tr>
<td>27 Serving Selected Markets</td>
<td>54.4</td>
<td>53.2</td>
<td>51.3</td>
<td>50.8</td>
<td>48.7</td>
</tr>
<tr>
<td>28 Strategy and Policy</td>
<td>71.3</td>
<td>69.1</td>
<td>67.6</td>
<td>68.7</td>
<td>64.1</td>
</tr>
<tr>
<td>29 Systems Development</td>
<td>73.1</td>
<td>69.0</td>
<td>70.3</td>
<td>68.8</td>
<td>68.8</td>
</tr>
</tbody>
</table>
12c. Graduate Programs

MBA Program Assurance of Learning Report

Spring 2017

Description of Program
The Master of Business Administration (MBA) program in the College of Business Administration is generally classified as a part-time MBA program. This is due to the overwhelming majority of students working full-time jobs during the day and then taking one or two MBA courses in the evening each week. The program consists of 36 credit hours for students with undergraduate business backgrounds. For students with no undergraduate business backgrounds an additional 12 hours of foundation courses may be required. Historically the program has focused on U.S. domestic students, but consistent with recent national trends in declining MBA enrollments, the shift has been made to international students.

A special cohort program has been created for individuals that cannot attend the traditional program during the week. The cohort based program is called the Saturday MBA program. The classes meet eight hours per day every other Saturday for two years.

MBA AOL Structure
Oversight of the MBA AOL program is by the CBA Office of Graduate Programs and the Graduate Curriculum and Standards Committee made up of a faculty member from each of the five departments. In general, the AOL process has changed little over the past five years focusing primarily on the student indirect measures of the EBI survey and required exit interviews with graduating MBA students. The EBI survey occurs every two years and focuses on student learning goals and outcomes. These data allow us to track changes over the years relative to our program and various national norms. Also, each graduating MBA student is required to complete either a face to face exit interview with the Director of Graduate Business Programs or complete a comparable online survey. To date, the primary direct assessment of student learning has focused on the selection process where prospective students go through a rigorous admissions process including an admission essay. However, to include more direct measures a rubric is embedded in a small number of graduate courses required of all MBA students. Courses under review include International Business Environments, Business Analytics and Organizational Strategy. These three courses are consistent with the overarching goals of the program.

The five learning goals identified below are the outcome of a review by the CBA Graduate Curriculum and Standards Committee in 2015. The committee felt there were too many learning goals being listed. The learning goals were prioritized and the 5 mentioned below were selected as representing the major learning the MBA program was striving to achieve.

MBA Learning Goals & Objectives (latest Revision: Fall 2015)

Goal: Global Perspective
Objectives: 1. Gain an understanding of doing business in different countries.
2. Better understand cultural differences within countries and across regions.

Goal: Critical Thinking/Problem Solving
Objectives: 1. Ability to use multiple approaches/perspectives to analyze situation.
2. Ability to interpret the results
3. Ability to come present actionable finding.

Goal: Effective Communications
Objectives: 1. Ability to effectively communicate verbally.
2. Ability to demonstrate effective written communications.
Goal: **Ethical Behavior**
Objectives:
1. Ability to differentiate between ethical and unethical behaviors.
2. Ability to understand the potential consequences of unethical behaviors on Business.
3. Ability to understand the potential personal consequences of unethical Behavior.

Goal: **Teamwork**
Objectives:
1. Ability to understand leadership principles.
2. Ability to apply leadership principles in diverse settings.

**Alignment of MBA Learning Goals**

**Goal: Global Perspective**
Alignment:
1. Aligns well with Int. Business courses, especially Int. Business Environments
3. Leadership Institute’s study abroad & service programs.

**Goal: Critical Thinking/Problem Solving**
Alignment:
1. Creation of required Business Analytics & Information Strategy course
2. Creation of Business Analytics concentration in MBA program
3. Enhancement of courses to include stronger critical thinking & analytical skills.

**Goal: Effective Communications**
Alignment:
1. Most MBA require in-class projects that utilize written and spoken communications skills.
2. Use of in-house business practitioner to help students with writing/presentation skills.
3. Use of university writing laboratories.

Goal: **Ethical Behavior**
Alignment:
1. Required MBA course on professional ethics
2. Inclusion of discussion on ethics in all relevant subject matter courses.

Goal: **Teamwork**
Alignment:
1. Teamwork applications in required MBA professional development courses.
2. Team based “real world” projects in majority of MBA courses.

**Changes in Curriculum/Courses/Teaching Modes since 2012**
The primary change in curriculum over the past five years centers around business analytics. Required and elective MBA courses have adapted their focus to not just statistically analyzing data, but, more importantly, using critical thinking skills to interpret the results and provide actionable managerial solutions. This change was in line with changing national and international industry trends and demands for increasing business analytics across all of the business disciplines. Also, in their exit interviews, students strongly suggested that we focus on analytics as this was being required more and more in the jobs they were applying for. Based on the trend data, suggestions from students and recommendations from the business community, we made 6500:601 Business Analytics and Information Strategy a course required of all MBA students. Concurrent with this, departments without a discipline specific analytics course were asked to create such a course as was evidenced in the creation of the 6600:615 Marketing and Sales Analytics course.

Also during this time a dramatic change occurred with teaching modes. In 2012, one MBA course was available on line. This was not in accordance with the national trend toward online MBA and other
graduate courses. Along with this trend, our students, most which work full-time and attend classes in the evening, asked that we consider offering some courses on line for their convenience. Concurrent with this, the Graduate Programs Office in the CBA was part of a consortium that received a significant grant from the State of Ohio to provide MBA level training to high school teachers in order for them to be licensed to teach dual enrollment business courses in their high school districts. Geographically, many of these school districts were 100-150 miles away from U.A.’s main campus making commuting very impractical. To resolve this geographical and time problem, the grant provided us with financial resources to train our faculty in online course development, assist them with designing robust online courses, and provide them with a small stipend for work done in developing and implementing the course. These online courses were tested during the implementation of the grant in 2014-2015 and now have been incorporated into our normal MBA course offerings. The online courses have not replaced the in-class courses, but are offered as an alternative delivery method for those students wanting online classes. As of the Fall Semester, 2016, 16 MBA courses are available on line and in class and have the capability to be used in different hybrid modes and time frames. Both the increasing number of students enrolling in the online classes and the very favorable comments from students during exit interviews suggest that the online courses have become a successful component of our MBA program.

Assessment Plan
Each one of the five primary learning goals will be assessed on a continuous rotation. Starting with the Fall 2017, each class being assessed will be done so also in the Saturday MBA program and online, as appropriate.

Spring 2017 – Global Perspective
The Global Perspective learning goal was assessed during the recently completed Spring 2017. Data were collected via EBI/Skyfactor results and student exit interviews. In order to assess in class effectiveness, a rubric (discussed in this document) was used in the 6800: 605 International Business Environments course.

Fall 2017 – Critical Thinking/Problem Solving
The Critical Thinking learning goal will be assessed in the Fall 2017 semester by using results from the EBI/Skyfactor survey and student exit interviews. A rubric will be embedded in 6500:601 Business Analytics and Information Strategy course. This course is required of all MBA students and is also taught online and as part of the Saturday MBA program.

Fall 2017 – Effective Communications
The Effective Communications learning goal will be assessed in the Fall 2017 semester by using results from the EBI/Skyfactor survey and student exit interviews. Working closely with the CBA’s Business Communications Specialist, a rubric will be embedded in 6600:620 Strategic Marketing course. The course emphasizes both written assignments and classroom presentations. This course is required of all MBA students and is also taught online and as part of the Saturday MBA program.

Spring 2018 – Ethical Behavior
The Ethical Behavior learning goal will be assessed in the Spring 2018 semester by using results from the EBI/Skyfactor survey and student exit interviews. A rubric will be embedded in 6700:691 Professional Integrity course. This course is required of all MBA students and is part of the Saturday MBA program. (The course is not currently taught online.)

Spring 2018 – Teamwork
The Teamwork learning goal will be assessed in the Spring 2018 semester by using results from the EBI/Skyfactor survey and student exit interviews. A rubric will be embedded in 6500:695 Organizational
Strategy course. This course is required of all MBA students and is the capstone course for the entire MBA program. It is also taught online and as part of the Saturday MBA program.

In the Fall 2018 Semester the rotation of the assessments will start again. This will run concurrently with the new 2017-2018 EBI/Skyfactor survey results. After the above rotation, courses selected for the assessment will be evaluated and changed as deemed necessary. Rubrics will be evaluated on an ongoing basis.

**Summary of Assessment Tools**

**EBI/Skyfactor:** The MBA program has participated in the EBI/Skyfactor (name changed 2016) benchmarking surveys every other year since 2008. Our students’ responses are compared to all institutions participating in the survey. The overall performance goal is a mean score of 5.5 on a 7.0 scale on each item.

The most comprehensive measure across the entire survey is the Overall Satisfaction factor. In 2016 the mean score was 5.92/7.00 or 82.0%. This is up dramatically from the 5.08/7.00 (68.2%) in 2008 and the 5.47/7.00 (74.4%) in 2012, the first year of the current 5 year AACSB review. The 2016 results position us as greater than or equal to our peer competition and the overall group of institutions participating in the survey.

- Data Collected: EBI/Skyfactor Assessment Benchmarking Survey; Spring 2014 (N=69); Spring 2016 (N=104)
- Sharing Results: Trend analysis of the EBI data is currently underway and will be shared with the faculty.

**Student Exit Interviews:** All students in the MBA program are required to complete an exit interview upon graduation. This qualitative interview can be completed in one of three different ways. First, the student can schedule a face to face interview with the Director of Graduate Programs in Business. Second, the student can complete the interview online. Third, the student can complete the interview online and then schedule a face to face interview with the Director to discuss the responses in more detail.

- Data Collected: MBA Student Required Exit Interviews; Fall 2012 – Spring 2017
- Sharing Results: Results of exit interviews are currently being summarized and will be shared with faculty.

**Course Embedded Rubric:** In Spring, 2017 the MBA learning goal assessed was understanding a Global Perspective. The MBA Curriculum and Standards committee was responsible for creating a rubric to assess the Global Perspective learning goals. Artifacts for this assessment came from the Spring 2017 MBA International Business Environments course. A random sampling of class artifacts was collected by the MBA Curriculum and Standards Committee and evaluated against the rubric.

- Data Collected: Rubric embedded in Spring 2017 International Business Environments course.

**Example of Closing the loop for one learning goal: Global Perspective**

**Exit Interview data results**

- Students were concerned about the small number of opportunities they had to gain a global perspective both inside and outside the classroom. Many of the domestic students had spent little or no personal time outside the United States. Additionally, because of the part-time (students working) nature of the program, students had little opportunity to study abroad. They also felt that they were not experiencing and, therefore, not learning about other cultures and how they interacted with each other and, especially, the United States. Many commented that what they learned about other cultures was from infrequent discussions with their international classmates.
They reported that the most international interaction they had is with foreign students in their classes. In many cases, this interaction was limited to in-class discussions and team assignments.

- A related problem was with the international students who stated that while they felt they received a very good “American” education, they really did not experience American culture and business first hand. Many indicated that they came to the United States not only to obtain an advanced degree, but to experience and understand American culture first hand. To many the limited classroom environment was not providing them with opportunities to become immersed in both local and US culture.

**Actions taken**

A number of internal and external initiatives have been put into place to improve the extent to which MBA students achieve the Global Perspective learning goal as described below:

- The growing number of diverse international students over the past three years has increased opportunities for in-depth interactions between domestic and foreign students both in and out of the classroom.
- Due to this, instructors have changed their course materials to include more global perspectives and discussions.
- Instructors have taken action to make sure that project teams are globally diversified.
- Using the Saturday MBA program as a test case, we are currently looking at building a study abroad opportunity into the MBA program. In 2016, a Saturday MBA cohort visited and studied in Ireland and another cohort visited Panama in 2017. Plans are to continue this in the Saturday MBA program annually and begin to start offering similar experiences to our evening MBA students starting in the 2017-2018 academic year.
- Conversely, an initiative was implemented in 2015 called the American Experience. While primarily targeted at our international students this initiative seeks to get our graduate students involved in local American culture, business interactions and cross-cultural events.
  - International students have formed their own organization called the Cross Cultural Association (CCA).
  - The CCA, with their domestic colleagues, attend local cultural, business and educational events.
  - An International Day is held in the College of Business Administration where each country sets up a table with cultural artifacts, food from the country, with the students dressed in their native attire. Music, dancing and other forms of shared entertainment provide additional cultural education.
  - The CCA has implemented weekly evening free coffee breaks where both domestic and foreign students gather before and between classes to interact over coffee, tea and assorted deserts from different cultures. The free coffee breaks occur weekly with the exception of holiday and finals weeks. The coffee breaks have been in effect for three semesters with a total of around 30 breaks occurring to date.

**Embedded Class Assessment**

In order to assess the Global Perspective Learning Goal, the 6800:605:800 International Business Environments course taught during the Spring Semester 2017 by Dr. Andrew Thomas was used as the point for data collection. This multi-faceted course looks at numerous aspects of understanding and undertaking global business. It is a required course for all students in the MBA program.

The artifact selected from this class to be assessed was the recently completed final paper. This class is taught in a seminar format with each student leading discussions in a number of global topics under the
supervision of the professor. The requirement of the final paper was to select and discuss four of the
topics presented by classmates during the semester. The student was to (1) integrate these topics from
a global perspective and (2) summarize how the topics could be applied to his/her current and future
employment interests and needs. A random sampling of papers was independently assessed against the
Global Perspective learning objectives evaluated.

Our standard for performance is an average of 2 (acceptable) or better for every student. Each learning
objective was assessed using the rubric on a scale of 1 (poor) to 3 (exemplary) as described below.

<table>
<thead>
<tr>
<th>Understand:</th>
<th>1 (Poor)</th>
<th>2 (Acceptable)</th>
<th>3 (Exemplary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doing Business In Different Countries</td>
<td>Student only has limited understanding</td>
<td>Student has a solid foundation and cogently discusses topic</td>
<td>Student has excellent understanding supported by relevant examples.</td>
</tr>
<tr>
<td>Cultural Differences within Countries &amp; across Regions</td>
<td>Student only has limited understanding</td>
<td>Student has a solid foundation and cogently discusses topic</td>
<td>Student has excellent understanding supported by relevant examples.</td>
</tr>
<tr>
<td>Role of American Business in Global Environment</td>
<td>Student only has limited understanding</td>
<td>Student has a solid foundation and cogently discusses topic</td>
<td>Student has excellent understanding supported by relevant examples.</td>
</tr>
</tbody>
</table>

**Results**
The assessment of the Global Perspective learning goal generated the following mean scores per the
objectives:

- Understanding of doing Business in Different Countries \( \text{Mean} = 2.14 \)
- Understanding cultural differences within countries and across regions. \( \text{Mean} = 1.57 \)
- Understanding the role of American business in global environment. \( \text{Mean} = 2.29 \)

This was the first time this rubric was used with this class. While the rubric scores for both the
understanding of doing business in different countries and understanding the role of American business
in the global environment were in the acceptable range, there is room for continuous improvement. The
understanding cultural differences within countries and across regions definitely needs improvement.

**Actions to be taken**
1. Share results with MBA faculty.
2. Ask professor(s) teaching the International Business Environment class to devote more attention to
   the learning objectives and to review current course content that relates to the objectives to
determine where improvements can be made. Determine what opportunities exist in other MBA
courses to address these learning objectives and effective means of driving improvement in
achievement of these objectives.
3. Working with the professor(s) to create an artifact or artifacts that are standalone measures instead
   of the course assignment currently used.
4. Reassess the learning objectives and rubric to make sure that both are defining what the faculty has
decided should be the outcome of this learning goal.
5. Increase students’ awareness of the rubric before assignments are completed.
EBI Results
The EBI biannual assessment survey has enabled us to view changes in enhancing the global perspective learning goal during the 5 year AACSB review. Data from 2013-2014 assessment of student perceptions at the beginning of the time period during which emphasis was placed on this learning goal provides a benchmark that can be used to compare the 2015-2016 results.

The aggregate EBI global perspective factor in 2014 and 2016 was “learning: domestic and global economies”. The items are based on a 7 point ascending scale. The performance score is the percentage reported when the 7 point scale is converted to 0-100%. Performance scores over 75% are considered good while performance scores of 74% and under are considered as needs improvement.

**Overall:** 2014 Mean= 5.75 Performance =79.2%
2016 Mean= **5.87** Performance =**81.2%**

**2014 By Gender:**
- Male Mean= 5.88 Performance= 81.3%
- Female Mean= 5.59 Performance= 76.5%

**2016**
- Male Mean= 5.91 Performance= 81.8%
- Female Mean= 5.77 Performance= 79.5%

**2014 By Ethnicity:**
- White Mean= 5.79 Performance= 79.8%
- Other Mean= 5.66 Performance= 77.7%

**2016**
- White Mean= 5.81 Performance= 80.2%
- Other Mean= 6.07 Performance= 84.5%

**2014 By GPA:**
- Under 3.50 Mean= 5.46 Performance= 74.3%
- 3.50 & Above Mean= 5.86 Performance= 81.0%

**2016**
- Under 3.50 Mean= 5.97 Performance= 82.8%
- 3.50 & Above Mean= 5.88 Performance= 81.3%

![Comparison of 'Learning: Domestic & Global Economies' Factor on EBI](chart.png)
The EBI assessment data reported above demonstrates that our students MBA students are scoring higher on Understanding Global Perspective learning goal from 2014 to 2016. Our overall performance score has increased to 81%. Both male and female scores have increased. Scores of females showed the greatest growth in 2016. Ethnicity is very interesting in that the “other” group consists of the majority of our international students who are from the Middle East, Asia and Africa. While performance went up for the white category, it went up dramatically (77.7% to 84.5%) for the other category. Similarly, the performance from the group with GPA’s under 3.50 grew dramatically from 2014 (74.3%) to 2016 (82.8%).

**Peer Comparisons on Global Perspective EBI item**

In 2014, we scored higher than a select group of comparable schools (Mean=5.36, Performance=72.7%), the Carnegie class of schools (Mean=5.39, Performance=73.2%) and all institutions in the study (Mean=5.63, Performance=77.2%). Likewise in 2016 our scores were again higher than the select group (Mean=5.51, Performance=75.2%), Carnegie class (Mean=5.47, Performance=74.5%), and all institutions (Mean=5.58, 76.3%).

**Conclusions**

The graduate faculty in the College of Business Administration at the University of Akron selected Global Perspective as one of its primary learning goals. Until about five years ago the majority of the students in the MBA program are local domestic students many with little or no global experience. With the large number of Fortune 500 companies in the region and the significant influx of international students during the past five years, understanding global perspectives became an essential component of the MBA program. The findings of this assurance of learning assessment indicate that we are moving in the right direction.

On the extracurricular side, the American Experience Initiative and other programs recently put in place have significantly advanced student understanding of different cultures that are essential in doing global business. This is evidenced by both the 2016 EBI scores that have substantially increased over the 2014 scores. While highly subjective, exit interview outcomes have changed from students, both domestic and international, expressing concern over a lack of cross cultural experiences and awareness to recent exit interviews outcomes indicating that the learning students achieve in the area of global perspective is now one of the highlights of the program.

On the classroom side, the embedded rubric assessment indicates that while “acceptable” there is room for improvement. Improving these objectives will become the focal point of the understanding global Perspective learning goal between now and when the Global Perspective learning goal is next formally assessed in Fall 2018.
Overview and History of the MSM-IS Program

The Master of Science in Management degree with a specialization in Information Systems was established in Fall, 1987. However, significant growth in the program was not achieved until the program was officially listed as a federal STEM program. In May of 2013 The University of Akron officially changed the CIP code to 11.040, which is a STEM classification. This increased the enrollment significantly. As such, we have determined that for the first time, it is appropriate to include a new assessment for this program.

Below is the enrollment data for the MSM-IS program (data is for spring of each year):

The growth was primarily due to enrollment by international students. With STEM classification, international students are permitted to work in the United States for optional practical training (OPT) for an additional 17 months (beyond the normal 12 months) (which as of May 17, 2016 has been extended to an additional 24 months for a total of 3 years eligibility to work in the US after graduation).

The international students bring, on average, a slightly different set of strengths to the program. The GMAT scores indicate that they are slightly higher on quantitative capabilities, and slightly lower on verbal than their American counterparts.

In addition, the international students have a strong preference for face-to-face classes. They have explained to the graduate advisors and faculty that they have not travelled all of this way just to take an online course – they could have stayed in their country and done that.

Thus, the MSM-IS program has experienced significant growth, which is from international students. This growth has been accompanied with some changes in the capabilities, and desires of the student body.

The program has been very successful in graduating students, with the largest class of graduates ever (38) in the 2017 academic year.
Very recently, we have experienced a decline in enrollment by international graduate students in the MSM-IS program. Conjecture for the causes of this drop relate primarily to the changes by UA administration in the recruiting process. Previously, recruiters were paid for each quality student that enrolled in our program. The president changed that approach in 2016, and we believe we are seeing the result of that change now. Other external factors are also likely contributors to the drop in enrollment.

**MSM-IS Learning Goals and Objectives**

The IS faculty have developed five specific learning goals, with multiple objectives under each goal. The full assessment plan can be found at the end of this document.

1) **Analytical Problem Solving Skills**
   a) Visualize and analyze business data
   b) Demonstrate analytical skills in terms of effective decision-making and problem solving

2) **Communication Skills Utilizing Data**
   a) Write business documents clearly, concisely, analytically, and persuasively
   b) Speak in groups and in public clearly, concisely, analytically, and persuasively, with appropriate use of visual aids

3) **Employer satisfaction**
   a) Employers that hire our students will be satisfied with the knowledge and skills that our graduates possess

4) **Graduate satisfaction**
   a) Students that graduate from our IS program will feel that they have gained significant value form the instruction and experiences they received while at UA

5) **Specific IS knowledge and skills**
   a) Use the contemporary systems modeling methodology and an advanced CASE tool to model business processes and gather business requirements
   b) Students will have the ability to develop databases and the queries to generate information appropriate for management decisions
   c) Demonstrate an understanding of work breakdown structures and networks for planning, scheduling, and controlling projects
   d) Understand emerging technologies and how to be appropriately use them to support business strategy
Assessment of Learning
Per the assessment plan, we have been collecting data on a rotational basis for specific goals and objectives. Here are some examples of assessments.

Goal/Objective and Method
1) Analytical Problem Solving Skills
   a) Visualize and analyze business data
   b) Demonstrate analytical skills in terms of effective decision-making and problem solving

To assess these objectives, we randomly selected 25% of the students from the 6500:601 Business Analytics and Information Strategy course. We then provided their final projects to three external advisory board members along with a rubric. The advisory board members were all members of the Center for Information and Technology group with expertise in the field of analytics. Job titles of the assessors were: Director, Digital & Data Analytics at The Goodyear Tire & Rubber Company, Chief Technology Officer, GBS Corporation, and Chief Data Scientist, Dealer Tire.

Results
For 6 dimensions of the scoring rubric, from a range of 1 – 5, the mean score was 3.4. The program goal for these objectives were 4, so we were below expectations.

Implications and Follow-up Action
As a result of the assessment, faculty have determined that in the Business Analytics and Information Strategy course, the following changes will be made:
   • More time will be spent reviewing basic statistics
   • More time will be allocated to visualization techniques
   • Interactive video tutorials for JMP labs will be developed
   • Videos will be created to help illustrate more advanced graphing techniques.
   • Critiquing of graphs and their interpretation will occur in classes, as opposed to providing written feedback

Goal/Objective and Method
2) Communication Skills Utilizing Data
   a) Write business documents clearly, concisely, analytically, and persuasively
   b) Speak in groups and in public clearly, concisely, analytically, and persuasively, with appropriate use of visual aids

For this goal, teams from the 6500:644 Knowledge Management and Business Intelligence were used. This course meets every fall. Teams were required to present class projects in order to determine if students were able to communicate data in ways that would persuasively convince observers toward a conclusion. Rubrics were used and external former students (that were now working in analytic positions in industry) were asked to assess team projects. Three years of data have been recorded.

Results
The graph below represents the mean scores for all items in the rubric for communication with data. It will immediately be observed that with the exception of the Fall 2014, the scores are somewhat slightly falling (which is opposite of the direction desired). Two factors may have played some role. A Fall 2014 evaluator had only one year of experience at this time in his role; his average score assigned across all categories was 3.37. In the second and third years both evaluators had been in their jobs somewhat longer. The Fall 2015 evaluator gave average scores of 2.79 and the Fall 2016 gave average scores of 3.00. It could be that there were some systematic differences in perceptions in the evaluators.
Another potential source of differences is the composition of the teams and the classes. From Fall 2014 to Fall 2015, the relative number of domestic students fell considerably. Taking the average scores for teams that did have at least one domestic member versus those who did not, the difference was 3.11 vs. 2.81. A genetic algorithm was used for team selection which incorporated the students’ self-evaluations of skills in various areas, as well as gender and origin in an attempt to ensure that each team was balanced. Below I show the averages by semester and whether the teams included at least one domestic student, across all four categories.

<table>
<thead>
<tr>
<th>Category / Semester</th>
<th>Team Averages by Semester, Category</th>
<th>Technical Correctness</th>
<th>Ability to Clearly Explain Concepts and Visualizations</th>
<th>Importance and Relevance of Recommendation(s)</th>
<th>Overall Persuasiveness of the Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall 2014</td>
<td>4.38</td>
<td>3.22</td>
<td>3.13</td>
<td>3.13</td>
</tr>
<tr>
<td></td>
<td>Fall 2015</td>
<td>4.00</td>
<td>3.13</td>
<td>3.00</td>
<td>2.88</td>
</tr>
<tr>
<td></td>
<td>Fall 2016</td>
<td>3.00</td>
<td>2.50</td>
<td>2.94</td>
<td>2.50</td>
</tr>
<tr>
<td></td>
<td>Fall 2014</td>
<td>2.88</td>
<td>2.50</td>
<td>2.94</td>
<td>2.94</td>
</tr>
<tr>
<td></td>
<td>Fall 2015</td>
<td>2.94</td>
<td>2.50</td>
<td>2.94</td>
<td>2.94</td>
</tr>
<tr>
<td></td>
<td>Fall 2016</td>
<td>2.94</td>
<td>2.50</td>
<td>2.94</td>
<td>2.94</td>
</tr>
</tbody>
</table>

**Implications and Follow-up Action**
As a result of the assessment data, faculty have determined to make the following changes:

- The faculty that teach 601 and 644 were going to work more closely together to ensure that course content was closely aligned, duplications were eliminated, and that key tools were built upon
- Ensure that the rubric is applied more consistently by providing rater training and greater clarity and examples of the various levels in each category
- Enhanced use of the software tool Tableau was going to be used, with several examples cases and activities designed to familiarize students with types of output
- Design teams more carefully by paying additional attention to diversity factors
- Two preliminary student assignments have been designed that more explicitly cover various chart and graph types, and students will be provided with extensive feedback

**Goal/Objective and Method**
3) *Employer satisfaction*
   a) Employers that hire our students will be satisfied with the knowledge and skills that our graduates possess
This goal has not yet been assessed. We are trying to build a database of employers along with manager contact information. We will conduct our first employer satisfaction survey in Fall 2017.

**Goal/Objective and Method**

4) **Graduate satisfaction**
   a) Students that graduate from our IS program will feel that they have gained significant value from the instruction and experiences they received while at UA

We attempt to conduct a personalized exit interview with every graduating student from the MSM-IS program. When a face-to-face interview is not possible (generally due to scheduling conflicts) we send a survey to the student in order to obtain feedback. The interviews are qualitative in nature, so there are no numerical scores. However, the feedback is shared among the IS faculty and discussions related to improvements occur.

**Results**

Some of the common themes that occur in the qualitative feedback are: more flexibility of instructors is desired, more tools that are being sought by employers should be taught, more real projects, better career placement for graduate students, more courses focused on technology instead of business, more general business courses, more programming courses, more analytics courses.

**Implications and Follow-up Action**

The common themes are discussed by faculty. Many contradictions are observed, and yet many valuable suggestions are provided. The feedback is considered to be one important component used for shaping changes to the overall program. One example of change that has occurred is the introduction of a new programming course (6500:605 Programming Principles, or to demonstrate coding mastery), which will be required before admittance to 6500:643 (Systems Analysis).

**Goal/Objective and Method**

5) **Specific IS knowledge and skills**
   a) Use the contemporary systems modeling methodology and an advanced CASE tool to model business processes and gather business requirements
   b) Students will have the ability to develop databases and the queries to generate information appropriate for management decisions

To assess Goal 5, objectives a) and b), student exams from two courses were used: 6500:643 Systems Analysis and 6500:641 Database Management. This course is offered every fall. For the Systems Analysis course, the use of UML and IBM Rhapsody to gather user requirements and to model business objects were determined to be the best methods to evaluate Objective 5a. The Database Management course used exam questions pertaining to the Design, Develop, and Query of relational databases to evaluate the success of Objective 5b. Exam questions were scored on a rubric by the instructor in an activity separate from grading the exam. Data was collected and evaluated for the past two years. It was hoped that students would score above 70% on all criteria.

**Results**

The means of the evaluation criterion are summarized below. No course exceeded the 70% goal, even though several came close to that mark.

<table>
<thead>
<tr>
<th>Learning Goals</th>
<th>5a.1</th>
<th>5a.2</th>
<th>5b.1</th>
<th>5b.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>57.7%</td>
<td>63.4%</td>
<td>69.8%</td>
<td>58.5%</td>
</tr>
<tr>
<td>2016</td>
<td>61.8%</td>
<td>56.6%</td>
<td>64.8%</td>
<td>68.3%</td>
</tr>
</tbody>
</table>
Implications and Follow-up Action
No clear patterns or trends emerged from the data. The concepts and technical skills required to do well on these goals are very challenging. This data, along with feedback from advisory board members and employers, has prompted the re-evaluation of the course structure within the MSM-IS program. Faculty ultimately decided to:

- Create a new pre-requisite course for 643. A curriculum change proposal has already been created which requires students to take 6500:605 Programming Principles, or to demonstrate coding mastery, before admittance to 643. This will permit the instructor in 643 to spend more time on more advanced topics, and provide the opportunity to focus more on the material related to objectives.

Goal/Objective and Method

5) Specific IS knowledge and skills
   c) Demonstrate an understanding of work breakdown structures and networks for planning, scheduling, and controlling projects
   d) Understand emerging technologies and how to be appropriately use them to support business strategy

To assess objective c) there were challenges. The past few years the Project Management course was taught by part-time faculty, and evaluations were not performed correctly. Therefore, we will need to look forward to spring 2018 to conduct a proper assessment of this objective.

For the assessment of 5d, we examined a core student project associated with the course 6500:640 Information Systems and IT Governance. In that class, small teams of students are required to choose an emerging technology and an organization where the technology might be applied with some advantages. A rubric is used to score the projects, and one of the rubric items specifically addresses the use of the Andriole framework. This course is offered in the spring, and there are the assessments have been conducted for three years.

Results

The means diamonds represent the 95% confidence interval, and the horizontal lines in the diamonds are the averages for the rubric scores.
<table>
<thead>
<tr>
<th>Semester</th>
<th>Number of Teams</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2015</td>
<td>11</td>
<td>3.73</td>
</tr>
<tr>
<td>Spring 2016</td>
<td>17</td>
<td>3.85</td>
</tr>
<tr>
<td>Spring 2017</td>
<td>9</td>
<td>3.94</td>
</tr>
</tbody>
</table>

With p = .745, these differences between the years are not statistically significant. However, the trend indicates an improved score every year.

**Implications and Follow-up Action**

Each year, the professor for the course has attempted to make changes to improve the scores on this metric. Here are some of the changes that were made that are believed to have improved the scores:

- One change that was instituted in the last year was to enhance the students’ understanding of the Andriole framework by tying it together with another framework used in the class, the Benefits Dependency Network.
- Additional articles and readings were provided to help students understand methods to categorize and rate technology changes.
- A future change will use a pre-made spreadsheet that models an attempt to score criteria related to new products in a case study. This should provide better guidance for students to see what a final result of the process might look like.

Based on anecdotal evidence, this project has had a strong impact for some students. In Spring 2017, for example, one team researched middleware solutions that would allow ambulances in crowded Indian cities to gather data using IoT medical devices in ambulances on the way to the hospital, speeding creation of electronic health records, enhancing diagnoses, and allowing the ER to prepare the necessary resources for swift action upon arrival. They conducted interviews via email with tech leaders in two middleware companies and compared the suitability of each solution. After the project was over, one team member wrote the following email [excerpt]:

“This project really fueled us to know more about the middleware and healthcare industry. Thank you for giving us a chance to explore the fields we are interested in and understanding the existing problems. If it wasn’t for you and final project we wouldn’t really have gotten a chance to work on something this practical. We sincerely appreciate your efforts professor.”

**Overall Conclusion**

The MSM-IS Program has seen tremendous growth, and is also currently experiencing some challenges. We have a fairly robust system in place to assess goals and objectives and we continue to make improvements to the program based on the data. We expect to continue to experience great success with this program.
## Learning Goal | Specific Objective | Source of Assessment | Method of Assessment | Schedule
---|---|---|---|---
1. **Analytical Problem Solving Skills**
   a) **Visualize and analyze business data** | Course-embedded case (6500:601) | Rubric evaluated by instructor | Every Spring
   b) **Demonstrate analytical skills in terms of effective decision-making and problem solving** | Course-embedded case (6500:644 Knowledge Management) | Rubric evaluated by instructor | Every Fall
2. **Communication Skills**
   a) **Write business documents clearly, concisely, analytically, and persuasively** | Course-embedded case (6500:652 Managing People) | Rubric evaluated by instructor with a random sample evaluated by advisory board members | Every Fall
   b) **Speak in groups and in public clearly, concisely, analytically, and persuasively, with appropriate use of visual aids** | Course-embedded case presentations (6500: 644 Knowledge Management) | Rubric evaluated by instructor with a random sample evaluated by advisory board members | Every Fall
3. **Employer satisfaction**
   a) Employers that hire our students will be satisfied with the knowledge and skills that our graduates possess | Employer satisfaction survey | Email link to electronic survey will be sent to all employers requesting feedback on their recent hire from the UA program. | Every even year
4. **Graduate Satisfaction**
   a) Students that graduate from our IS program will feel that they have gained significant value form the instruction and experiences they received while at UA | Face-to-face interview | Students will be interviewed during the last semester of their program and qualitative data will be gathered | Every semester
5. **Specific IS knowledge and skills**
   a) **Use the contemporary systems modeling methodology and an advanced CASE tool to model business processes and gather business requirements** | Course-embedded assignment (6500:643 Systems Analysis) | Rubric evaluated by instructor | Every fall
   b) **Students will have the ability to develop databases and the queries to generate information appropriate for management decisions** | Course-embedded assignment (6500:641 Database Management) | Rubric evaluated by instructor | Every fall
   c) **Demonstrate an understanding of work breakdown structures and networks for planning, scheduling, and controlling projects** | Course-embedded assignment (6500:678 Project Management) | Rubric evaluated by instructor | Every spring
   d) **Understand emerging technologies and how to be appropriately use them to support business strategy** | Course-embedded assignment (6500:640 IT Governance) | Rubric evaluated by instructor; random sample will be evaluated by advisory board members | Every spring
12d. Rubrics

Using Rubrics in the CBA Classroom, 2012-2015

An oral communications rubric and business writing rubric have been created and shared with CBA faculty since 2013. Specifically, the oral communications rubric has been used in Dr. Hallam’s Strategy capstone classes (6500-490) since Fall 2013 and in Dr. Hausknecht’s International business (6800-305) classes since Spring 2015.

Starting in Spring 2014, we began taping students in the Capstone class and requiring them to meet with the Business Practitioner, Communications, Betsy DuWaldt, to go over feedback and to view the video. About 300 students’ presentations have been reviewed. In the International Business class, students receive extra credit for seeing me. About 146 students’ presentations have been viewed. Not surprisingly, the performances are generally better for the class of seniors than for International Business, which has mostly sophomores and juniors.

The oral presentation rubric has been operationalized into a scoresheet for these classes, with scoring from 1 (inadequate) to 4 (very effective). One significant issue is that the scoresheet is for a formal presentation, and the presentations are of a less formal nature and, in the case of International business, each student presents on the same topic, but analyzes it for different countries. The Capstone students have begun approaching the assignment more formally, but still not as formal as their final presentation. These circumstances ripple through the scoresheet. For example, introductions are all but missing in the International Business class, as are transitions between main points, and development of points of interest that will hold the audiences’ attention. The other issue is that I grade very rigorously, since the work doesn’t count toward a grade. This is reflected on the next page, with the scoring.

Strengths include:

- Presentation body. Research on the body of the presentations is generally well done and well organized.
- Vocal aspects. In the Capstone class, where the students know they will be inserting a link to the presentation into an ePortfolio, they often pay more attention to the vocal aspects of their presentation and with this, their perceived energy is better (they act like the want to be there). The classroom typically is smaller in the Capstone class, which could affect this.
- Sources. When sources have been required to be noted on individual slides, students in each class accomplish that.

Weak points include:

- Working with introductions of any sort. Even if students are reporting on the same topic in a generally informal way, there should be some sort of “hook”, which wouldn’t take very long to accomplish effectively. This is also related to a weakness in having touchpoints to the audience throughout presentations.
- Conclusions – which are difficult to do well – are typically too thin. Transitions are missing between points.
- Practicing out loud. When students don’t practice their presentations out loud, they stumble over words, and unfamiliar terms, and names, and the presentation will be much too long or much too short.
- Addressing numbers. This doesn’t show up in the scoring, but few students know how to talk to numbers, including rounding numbers, reading numbers, and placing numbers in context for the audience. For example, I’ve heard students say “$1,023 million” because that was on the data source, rather than translate to “more than 1 billion dollars” or “1.02 billion dollars”.
- Eye contact. Eye contact is especially challenging for students in the International Business class.
<table>
<thead>
<tr>
<th>Section</th>
<th>Strategy capstone (≈300 students)</th>
<th>International Business (≈150 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average scores in each section</td>
<td>Average scores in each section</td>
</tr>
<tr>
<td>Introduction</td>
<td>2.4 59%</td>
<td>Introduction 1.4 35%</td>
</tr>
<tr>
<td>Main body</td>
<td>2.5 62%</td>
<td>Main body 2.3 58%</td>
</tr>
<tr>
<td>Conclusion</td>
<td>2.1 52%</td>
<td>Conclusion 2.0 50%</td>
</tr>
<tr>
<td>Audience</td>
<td>2.3 58%</td>
<td>Audience 2.0 51%</td>
</tr>
<tr>
<td>Organization</td>
<td>2.6 65%</td>
<td>Organization 2.3 57%</td>
</tr>
<tr>
<td>Transitions</td>
<td>1.3 33%</td>
<td>Transitions 1.2 29%</td>
</tr>
<tr>
<td>Sources</td>
<td>2.7 67%</td>
<td>Sources 1.8 45%</td>
</tr>
<tr>
<td>Supporting Materials</td>
<td>2.6 66%</td>
<td>Supporting Materials 2.3 59%</td>
</tr>
<tr>
<td>Vocal</td>
<td>2.7 69%</td>
<td>Vocal 2.1 52%</td>
</tr>
<tr>
<td>Physical</td>
<td>2.4 60%</td>
<td>Physical 1.8 45%</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>2.3 57%</td>
<td>Eye Contact 1.5 38%</td>
</tr>
<tr>
<td>Energy</td>
<td>2.8 69%</td>
<td>Energy 2.4 59%</td>
</tr>
</tbody>
</table>
# Business Writing Rubric

<table>
<thead>
<tr>
<th>Category</th>
<th>Very Effective (4)</th>
<th>Good (3)</th>
<th>Adequate (2)</th>
<th>Inadequate (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Content, Development, and Audience</strong>&lt;br&gt;Demonstrates an understanding of purpose, subject matter, and audience.&lt;br&gt;Uses appropriate business terms and concepts that demonstrates knowledge of subject matter.&lt;br&gt;Completes all parts of the task.</td>
<td>Insightful man idea shows a thorough understanding of the purpose; Clearly adapts content to the audience. Develops ideas fully, using appropriate business terms. Completes all parts of task.</td>
<td>Clear main idea, and demonstrates a clear understanding of the purpose; Overall adapts content to audience. Develops ideas clearly, using business terms. Completes all parts of task.</td>
<td>Offers a main idea and demonstrates a basic understanding of the purpose; Usually adapts message to the audience. Develops ideas somewhat, using some business terms. Completes many parts of task.</td>
<td>Fails to establish a main idea or thesis and demonstrates little understanding of purpose. Does not adapt material to audience. Fails to develop ideas, using few or no business terms. Completes few parts of task.</td>
</tr>
<tr>
<td><strong>2. Organization</strong>&lt;br&gt;Demonstrates a unified structure by grouping (through paragraphs) and logically ordering information.&lt;br&gt;Provides connections, transitional devices between sentences and paragraphs.</td>
<td>Demonstrates a clearly unified structure; Effectively grouping and logically ordering information. Insightful connections and transitions throughout.</td>
<td>Demonstrates a mostly unified structure; Consistently groups and logically orders information. Many logical connections and transitional devices.</td>
<td>Demonstrates a generally unified structure although inconsistent and sometimes illogical ordering. Inconsistent connections, and transitional devices.</td>
<td>Little evidence of structure or logical ordering of document information. Lacks logical connections or transitional devices.</td>
</tr>
<tr>
<td><strong>3. Tone, Word Choice, and Mechanics</strong>&lt;br&gt;Uses effective sentence structure, variety, and word choice.&lt;br&gt;Demonstrates a professional tone.&lt;br&gt;Follows mechanical conventions such as correct grammar, punctuation, and spelling.</td>
<td>Shows precise, professional word choice and well-structured and varied sentences. Demonstrates a professional tone. Very few or no errors in grammar, punctuation, and spelling.</td>
<td>Uses professional language and word choice; has well-structured and varied sentences. Delivers a generally professional tone. Few errors in grammar, punctuation, and spelling.</td>
<td>Generally correct structure with some variety but less appropriate word choice. Does not have a generally professional tone. Errors in grammar, spelling, punctuation, and no significant interference with overall content.</td>
<td>Impersonal or unclear and incoherent language and word choice; includes errors in sentence structure and usage. Lacks a professional tone. Grammatical, spelling, and other errors so severe, they significantly interfere with the overall content.</td>
</tr>
<tr>
<td><strong>4. Sources/Documentation</strong>&lt;br&gt;Uses sources that support, extend, and inform – but do not substitute for writer’s own idea development.&lt;br&gt;Uses appropriate, credible source materials that complies with assignment requirements.&lt;br&gt;Uses correct citation style.</td>
<td>Uses sources to support, extend and inform – but not as a substitute for writer’s own idea development. Combines a variety of source materials appropriate for the assignment. Uses correct citation style in every aspect of the document.</td>
<td>Uses sources appropriately, but not as a substitute for writer’s own idea development. Combines a variety of materials that are generally appropriate. Thoroughly uses correct citation style.</td>
<td>Uses sources to inform, but also sometimes substitute for writer’s own idea development. Uses one type of source materials. Does not always conform to required citation style.</td>
<td>Neglects important sources. Overuse of quotations or paraphrasing that substitute for writer’s own ideas. Does not use citation style and does not give source acknowledgement, which will result in a charge of plagiarism.</td>
</tr>
</tbody>
</table>
# Decision Making Rubric

<table>
<thead>
<tr>
<th>TRAIT</th>
<th>Unacceptable</th>
<th>Acceptable</th>
<th>Exemplary</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifies Alternatives</td>
<td>Identifies alternatives that are not equal or that reflect confusion or limited understanding of the situation</td>
<td>Identifies alternatives that are equal and that reflect a basic understanding of the situation</td>
<td>Identifies alternatives that are seemingly equal and that reflect an in-depth understanding of the situation</td>
<td></td>
</tr>
<tr>
<td>Identifies criteria for assessing alternatives</td>
<td>Identifies only some important criteria</td>
<td>Identifies the important criteria that should be considered</td>
<td>Identifies important and less obvious criteria reflecting a thorough understanding of the situation</td>
<td></td>
</tr>
<tr>
<td>Applies criteria to alternatives</td>
<td>Determines the extent to which some of the alternatives possess each criterion or the extent to which all of the alternatives possess some of the criteria</td>
<td>Determines the extent to which each alternative possesses each criterion and justifies this with appropriate information or knowledge</td>
<td>Determines the extent to which each alternative possesses each criterion and justifies this with appropriate information or knowledge at an unusual level of depth</td>
<td></td>
</tr>
<tr>
<td>Evaluates results</td>
<td>Has difficulty evaluating whether important scores or criteria should be changed or dropped</td>
<td>Evaluates whether important scores or criteria should be changed or dropped in a way that reflects understanding of the subject</td>
<td>Evaluates whether important scores or criteria should be changed or dropped in a way that reflects an in-depth understanding of the subject</td>
<td></td>
</tr>
</tbody>
</table>
Assessment Rubrics for MSM-15

<table>
<thead>
<tr>
<th>Objective</th>
<th>Topic</th>
<th>Rubric Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>1. Technical correctness</td>
<td>Completely Lacking</td>
</tr>
<tr>
<td>1a</td>
<td>a. Chart appropriate for the type and scale of data they represent.</td>
<td></td>
</tr>
<tr>
<td>1a</td>
<td>b. Appropriate use of titles and legends that describes the variables.</td>
<td></td>
</tr>
<tr>
<td>1a</td>
<td>c. Conveys useful information to the viewer.</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>2. Ability to clearly explain the visualization</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>a. Correctly interpreted the chart.</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>b. Explanations are meaningful and useful.</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>3. Quality of the questions that were addressed.</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>2. Appropriateness of the data analysis techniques that were used to address the business questions.</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>3. How well the results were interpreted and communicated.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2a &amp; 2b</th>
<th>Technical Correctness</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a &amp; 2b</td>
<td>Ability to Clearly Explain Concepts and Visualizations</td>
<td>Highly Incorrect</td>
<td>Incorrect</td>
<td>Partially Correct</td>
<td>Correct</td>
<td>Highly Correct</td>
</tr>
<tr>
<td>2a &amp; 2b</td>
<td>Importance and Relevance of Requirement(s)</td>
<td>Highly Irrelevant</td>
<td>Irrelevant</td>
<td>Moderately Relevant</td>
<td>Relevant</td>
<td>Highly Relevant</td>
</tr>
<tr>
<td>2b</td>
<td>Overall Persuasiveness of the Presentation</td>
<td>Highly Unpersuasive</td>
<td>Unpersuasive</td>
<td>Moderately Persuasive</td>
<td>Persuasive</td>
<td>Highly Persuasive</td>
</tr>
</tbody>
</table>

Object Modeling for Systems Design
5a Object Identification
5a Relationship Identification
5a Attributes Identification
5a Proper Use of Patterns and Heuristics
5a Proper Use of Advanced Constructs

Use Case Modeling for Functional Requirements
5a Conceptual Understanding
5a Capturing Functional Requirements
5a Templates and Notations
5a User Interface Design
5a Structured English Logic

Data Modeling Rubrics
5b Conceptual Understanding
5b Capturing Data Requirements
5b Proper Use of Advanced Constructs
5b Creativity
5b Presentation

Database Query Rubrics
5b Query Logic
5b SQL Syntax

Analysis

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up service, negligible</td>
<td>Analysis has substantial flaws</td>
<td>Mismatch/misuse of a number of categories, scores missing</td>
<td>Small number of problems, conclusions not as definitive as they need to be</td>
<td>Entirely correct, includes use of full-blown weighting evaluation</td>
</tr>
<tr>
<td>Oral Presentation Rubric</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Content:</strong> Extent to which the presentation demonstrates knowledge of subject matter through use of concepts and terms, as well as relevance, purpose, explanations, support, and argument</td>
<td>All presentation material clearly relate to thesis; points are clearly made and all evidence supports thesis; varies use of materials</td>
<td>Sufficient information that relates to thesis; many good points made but there is little variation</td>
<td>Much of the information does not clearly connect to the thesis</td>
<td>Thesis not clear; information included does not support thesis</td>
</tr>
<tr>
<td><strong>Coherence and Organization:</strong> Extent to which the presentation demonstrates a unified, logical structure, direction, grouping of information, logical connections and clear and explicit transitions between points.</td>
<td>Thesis is clearly stated and developed with substantial main points and specific examples; conclusion/call to action is clear; presentation flows from point to point smoothly; excellent, clear transitions; succinct but not choppy; well organized</td>
<td>Most information presented in logical sequence; generally very well organized but transitions from idea to idea and medium to medium are not strong</td>
<td>Concept and ideas are loosely connected; lacks clear transitions; flow and organization are choppy</td>
<td>Presentation is choppy and disjointed; development of thesis is vague; no apparent logical order of presentation</td>
</tr>
<tr>
<td><strong>Audience:</strong> Extent to which the presentation demonstrates a thorough analysis of the audience, a particularly key consideration. This includes appropriate use of terms, definitions, language, and approach to the topic based on an understanding of the audience.</td>
<td>Involves the audience in the presentation; points made in creative way; holds the audience’s attention throughout</td>
<td>Presents materials in some interesting ways that are meaningful to the audience; holds the audiences’ attention most of the time</td>
<td>Some related main points, but went off-topic and lost the audience; mostly presents facts with little concern for the needs of the audience</td>
<td>Incoherent; audience lost interest and could not determine the point of the presentation</td>
</tr>
<tr>
<td><strong>Creativity:</strong> Extent to which the presentation offers its thesis and supporting points in an original manner, such as through a unique approach to the material that would most resonate with the audience, including the use of supporting materials such as images, video, etc.</td>
<td>Original presentation of material; uses the unexpected to full advantage; creative uses of materials captures audience’s attention</td>
<td>Some originality apparent; good variety and blending of materials/media</td>
<td>Little or no variation; material presented with little originality or interpretation</td>
<td>Repetitive with little or no variation; insufficient use of multimedia</td>
</tr>
<tr>
<td><strong>Material:</strong> Extent to which various technology and media are used to support and further support illustration of key points in the presentation; PowerPoint or Prezi slides must be readable for the room size; multimedia must never be a substitute for the speaker addressing the audience on all main points; multimedia used must be readable, audible, and appropriate to supporting the thesis.</td>
<td>Balanced use of multimedia materials that directly support thesis; use of media varied and appropriate and timed appropriately with point; text on slides is readable. Supporting video or audio not more than 10% of total presentation length</td>
<td>Use of multimedia not as varied and not as well connected to thesis; some timing issues in which slides are not advanced in a timely fashion and/or multimedia played at incorrect time</td>
<td>Use of multimedia materials lacks smooth transitions from one medium to another; slides not advanced until points are finished; supporting materials do not clearly connect to thesis</td>
<td>Little or no multimedia use or ineffectively used; imbalance in use of materials (too much of one not enough of another)</td>
</tr>
<tr>
<td><strong>Speaking Skills:</strong> Extent to which the presenter delivers the topic with clear articulation and volume; with appropriate nonverbal communication, which includes posture, eye contact, appropriate hand gestures and poise; in a prepared manner, with little or no reading from slides, notes, or a script.</td>
<td>Poised, clear articulation; proper volume for the room size; steady rate of speaking (not too fast or too slow); good posture and eye contact; energetic; confident; does not read slides or note cards</td>
<td>Clear articulation but not as polished; appropriate speaking volume; steady rate of speaking (not too fast or too slow); good posture and eye contact; confident; seldom reads slides or note cards</td>
<td>Some mumbling; little eye contact; uneven rate; little or no expression; sometimes reads from slides or note cards</td>
<td>Inaudible or too loud; no eye contact; rate of speaking too slow/fast; speaker seems uninterested; monotone intonations while speaking</td>
</tr>
<tr>
<td><strong>Length of Presentation:</strong> Extent to which the presentation meets the time allotted.</td>
<td>Within 5% of the allotted time +/-</td>
<td>Within 10% of allotted time +/-</td>
<td>Within 15% of allotted time +/-</td>
<td>Too long or too short; at least 20% over or under allotted time</td>
</tr>
</tbody>
</table>