ACADEMIC LEARNING COMPACTS (ALCs)

ISM - AY2016-17

Academic Learning Compacts, Updates: 2016-2017

"… to ensure student achievement in undergraduate and graduate degree programs …"

Academic Program: Information Systems Management

Person Responsible:

Mission of Academic Program (include URL): The IS major focuses on the intersection of business and technology, developing graduates who are well-versed in the language of business, have strong communication skills, and know how to select, develop, implement, and manage new and emerging information technologies. Additionally, the IS major provides students seeking more general business careers with a set of highly marketable skills they can apply in any facet of business. A variety of electives enable students to choose an area of specialization, learn about global information systems, or further develop their technical skills.

http://www.usfsp.edu/cob/undergraduate_studies/information_systems.htm

List Program Goal(s) / Objective(s):	
<u>IS Major</u>	<u>College of Business</u>
1. "developing graduates who are well-versed in the language of business, have strong communication skills…"	1. "to educate current and future professionals in the effective management and ethical leadership of organizations"
2. "…know how to select, develop, implement, and manage new and emerging information technologies…"	2. "We engage in theoretical and practical research as well as provide service …"
3. "…variety of electives enable students to choose an area of specialization, learn about global information systems."	3. "We meet the demands of our diverse student population by preparing them for an increasingly global environment …"

1. Content/Discipline Skills

Goals/Objectives	Means of Assessment/ Corroborating Evidence*	Criteria for Success	Findings	Plan for Use of Findings in 2016-17
1. Plan and develop a computer program using an object-oriented programming language. (a) Identify, differentiate and implement conditional expressions (b) Evaluate functionality of programs by execution and debugging	(a) Project 1 - Students developed a major multi-week project in which they created a foreign exchange (b) Project 2 - LiteFlite is a airline service that transports passengers between the following USF campuses: Tampa, Sarasota and St Petersburg. The students created a seat booking system for the company.	(a) 80% will score 70/100 or above (b) 80% will score 70/100 or above	Measured in Spring 2017 in ISM3232 (a) The average score for this assignment was 65 however 7 of the 22 students in the class stopped participating but did not drop the class. The average for the remaining 15 was 90 which is quite high. (b) The average score was a 45 but 9 students had stopped participating, the real average was an 84.	The students who did not drop was a major concern this semester but seems to be an anomaly. Changes to the course have been made for Fall 2017 to keep the students on track. 1) an addition of a quiz which is due before the assignment, this keeps the student active all week and ensures they have looked at the material before they start their assignment. 2) more guidance is given on the assignments so that students understand exactly what is required of them.
2. Demonstrate understanding in database design and administration	a) Exam1 b) Exam2	a) 70% will score 70/100 or above b) 70% will score 70/100 or above	Measured in Spring 2017: ISM 4212 Database Design and Administration	a) The success rate is above the threshold, and much higher than previous year (it was 73%

(a) Formulate Entity Relationship Diagrams from a business scenario (b) Write effective SQL queries to answer business questions			a) 81% of students scored 70/100 or above b) 67% of students scored 70/100 or above	the previous year). This is because students are given more rigorous practice questions and assignments before they take the quiz. This prepares them for the exam better. b) The success rate for this learning goal is lower than the set threshold (but a little higher than the previous year). There is a great disparity between the two semesters the course is taught. Even though the exam and the materials are the same, only 7% of students achieved 70% or above in Fall 2016, but 90% of students achieved 70% or higher in Spring 2017. This signals that the student profiles between the two semesters were drastically different. I will compare these results to

				2017-2018 academic year before making any substantial changes in the materials or the course.
3. Explain basic data communication concepts and internet technologies (a) Identify the layers of the OSI model (b) Analyze Internet protocols and be able to interpret Internet packets	(a) Students studied the OSI model and were assigned questions to re-enforce the learning concepts (b) Two Wireshark labs were assigned with increasing difficulty	(a) 80% will score 70/100 or above (b) 80% will score 70/100 or above	Measured in Spring 2017 in ISM4220 Business Data Communications (a) Avg score was 90% (b) Avg score was 92% and 83%	The students who did not drop was a major concern this semester but seems to be an anomaly. Changes to the course have been made for Fall 2017 to keep the students on track. 1) an addition of a quiz which is due before the assignment, this keeps the student active all week and ensures they have looked at the material before they start their assignment. 2) more guidance is given on the assignments so that students understand exactly what is required of them.
4. Demonstrate understanding of	(a) Individual project (b) Individual project	(a) 70% will score 70/100 or above	Measured in Fall 2016: ISM 3113 Systems Analysis	Both assessments are outcome specific and

systems development using appropriate analytical techniques (a) Formulate business processes using Activity Diagrams (b) Design data storage requirements of an Information System using a Class Diagram		(b) 70% will score 70/100 or above	and Design (a) 38 (of 38) students completed this project. 32 (84.2%) achieved a score of 70/100 or above. (b) 33 (of 38) students completed this project. All 33 (100%) achieved a score of 70/100 or above.	provide robust performance indication. Both have been modified in response to documented student learning needs. The measures provide effective and reliable estimation of student learning success.
5. Demonstrate the ability to critically discuss the impact of current IT and IS issues (a) Identify and explain current IS and/or technical issues from multiple sources (b) Discuss the potential impact on organizational policies, procedures and standards for managing distributed computing resources.	(c) Students are presented lectures and have a research project and group discussions on current technical issues that face a business. (d) Distributed resources are covered in lectures and students have online group discussions and a quiz to determine the students understanding of	(c) 80% will score 70/100 or above (d) 80% will score 70/100 or above	Measured in Spring 2016: ISM 4300 Information Resources (a) Avg score was 99% for the project and 87% for group discussions (b) Avg score was 80%	The students who did not drop was a major concern this semester but seems to be an anomaly. Changes to the course have been made for Fall 2017 to keep the students on track. 1) an addition of a quiz which is due before the assignment, this keeps the student active all week and ensures they have looked at the material before they start their assignment. 2)

	the concepts.			more guidance is given on the assignments so that students understand exactly what is required of them.

Communication and Critical Thinking Skills were measured for all Kate Tiedemann College of Business students in our required capstone course (GEB 4890) as follows:

Communication Skills:

Our students will produce quality oral presentations and written assignments.

OBJECTIVE 1: Students will demonstrate effective writing skills.

OBJECTIVE 2: Students will deliver effective oral presentations on a business topic.

MEASURE: Students will produce written analysis of a case study and make oral presentations in selected sections of GEB 4890. Both a written communication rubric and an oral communications rubric are used for scoring.

ADMINISTERED: SPRING 2017

OUTCOME OBJECTIVE 1: Forty essays were evaluated using our Business Writing Analytic Rubric. As in past years we hired an consultant/external reviewer (English professor and head of our USFSP Student Success Center) score the assignments. The rubric use addressed five criterion of writing: Purpose & Audience, Organization, Support/Reasoning, Language & Style, and Writing Conventions. There were four levels of proficiency for each criterion: unsatisfactory, basic, proficient, and superior. While the rubric is intended as a holistic tool, numerical values were assigned to the levels of proficiency for analysis: unsatisfactory = 1, basic = 2, proficient = 3, and superior = 4. Half points were also assigned with a score of 2.5 (i.e., borderline) or higher being an "acceptable" level of performance.

72.5% of the students scored borderline or better on their overall score. Of the five areas evaluated, students were strongest in their writing conventions skills (80% proficient to superior and 90% borderline or better) and weakest in their support/reasoning (42.5% proficient to superior and 67.5% borderline (2.5 points) or better. The following Table summarizes these results.

	Unsatisfactory to Basic (1-2 points)	Borderline (2.5 points)	Proficient to Superior (3 to 4 points)
Purpose & Audience	22.5%	20%	57.5%
Organization	10%	7.5%	75%
Support/Reasoning	32.5%	25%	42.5%
Language & Style	27.5%	20%	52.5%
Writing Conventions	10%	10%	80%
Overall Score	**27.5%**	**27.5%**	**45%**

The reviewer also noted the following:

"According to the syllabus for Spring 2017 GEB4890, this particular assignment was one of seven case studies that students analyzed. All seven case study analyses accounted for 10% of the overall grade. I am of the opinion that this particular assignment is not a wholly accurate representation of KTCOB student writing abilities. As each case analysis contributes less than 1.5% of the overall class grade, it is entirely feasible that students may not have put forth the effort and diligence in the assignment that they are truly capable of. One student added to the paper, in pen, "Sorry about the lack of detail and effort with this case. Been busy with work and family. This is not a good reflection of my abilities … it was rushed and last minute. Thanks." To counter this point, however, the syllabus did state that "Some outcomes of this class may be utilized to assess student learning for purposes of SACS and AACSB International accreditation." Whether this note held sway over students' effort to produce quality work is undetermined, but students were made aware of the potentiality that any of their assignments could be used in an external assessment."

ACTION TAKEN: **While a greater emphasis has been placed on written communication in our undergraduate business program about 25% of our students still score at an unsatisfactory level in written communication. More specifically, the following results have been achieved over the past 6 years: 61% in 2011, 73% in 2012, 81% in 2013, 74 % in 2014, 73% in 2015 and 73% in 2016. Due to the importance of this objective and since we have realized only limited improvements since our last review we will continue to strive for improvements in the future. The Undergraduate Curriculum and Assessment Committee will again review this Learning Goal carefully in the Fall 2017.**

OUTCOME OBJECTIVE 2: Students in Dr. Geiger's Spring 2017 GEB 4890 (capstone) classes were assessed on their ability to deliver an effective oral presentation on a business topic. The student presentations were rated on four traits: Content, Voice Quality and Pace, Mannerisms, and Use of Media. The results based on an Oral Communication Rubric, were as follows:

Content: 97% of all students scored "acceptable" or "outstanding."

Voice Quality and Pace: 93% scored "acceptable" or "outstanding."

Mannerisms: 93% of all students were rated "acceptable" or "outstanding"

Use of Media: 93% were rated either "acceptable" or "outstanding."

Our expectation was that 80% of the students would rate either acceptable or outstanding in each of the four traits and that expectation was exceeded.

ACTION TAKEN: Due to the importance of this objective, we will continue to measure it in future terms.

***Critical Thinking Skills*:**
***Students will have the ability to use critical thinking and decision-making skills*.**

OBJECTIVE 1: Students will identify and prioritize key assumptions used in business decision-making scenarios.

MEASURE: Students were given a writing assignment in Dr Marlin's GEB 4890 class and scored with a Critical Thinking Rubric consisting of three traits (identifies decision making scenario, identifies alternative courses of action, and analyzes alternatives and their consequences).

DATE ADMINISTERED: Spring 2017

OUTCOMES: 91.2% of all students were rated "acceptable" or "outstanding" on the first trait (identifies scenario). 88.2% of all students were rated "acceptable" or "outstanding" on the second trait (identifies alternative actions). 82.4% were rated "acceptable" or "outstanding" on the third trait (analyzes consequences). Our expectations were met on this objective.

ACTIONS TAKEN: We will continue to measure in the future using variations in the writing assignment to ensure consistency.

OBJECTIVE 2: Students will solve business problems using appropriate quantitative and analytical techniques.

MEASURE: Students will solve a two-way ANOVA problem and a Multiple Linear Regression Analysis problem on exams in the Business & Economic Statistics II course (QMB 3200). It is expected that students will score a 70% or higher grade in examining and solving these problems.

DATE ADMINISTERED: Fall 2016

EVALUATION TOOLS:

ANOVA Analysis - One-way and two-way ANOVA are taught in this course. A two-way ANOVA problem was assigned.

Multiple Linear Regression Analysis – Multiple linear regression along with appropriate tests for interaction and collinearity as well as quadratic and cubic regression are covered in this class. Two multiple linear regression and nonlinear regression problems were examined.

OUTCOMES: Scores were based on problems given to individual students on Exams 1 and 2. Between 80% and 92% of students scored either acceptable or outstanding on the 3-parts of the ANOVA problem (Exam 1) and between 80% and 96% scored acceptable/outstanding on the 6 parts of the regression problem (Exam 2).

ACTIONS TAKEN: Students continue to meet expectations in this area. We will continue to place a strong emphasis on helping the students "visualize" these types of problems and on how to use these techniques to solve business problems.

Analysis of Variance (ANOVA) : Summary

Date: FALL 2016

Rater: Dr John Gum   **Course:** QMB 3200   **Students:** 70

TRAIT	Unacceptable (-4 or more)	Acceptable (-3 or less)	Outstanding (no points deducted)	Accept + Outstanding
Test Factor A – provide proper null and alternative hypothesis; if null is rejected, perform post hoc analysis on all combinations; make appropriate recommendations based on findings.	10/50 = 20%	10/50 = 20%	30/50 = 60%	80%
Test Factor B- provide proper null and alternative hypothesis; if null is rejected, perform post hoc analysis; make appropriate recommendations	9/50 = 18%	10/50 = 20%	31/50 = 62%	82%
Test for interaction between Factors A & B; provide proper null and alternative hypothesis; test using alpha and sig (p values); make recommendations	4/50 = 8%	6/50 = 12%	40/50 = 80%	92%

Multiple Linear Regression Analysis: Summary

TRAIT	Unacceptable (-4 or more)	Acceptable (-3 or less)	Outstanding (no points deducted)	Accept + Outstanding

Test the Model – provide null and alternate hypothesis; test using alpha and p-value; reject or not; statistically significant?	8/50 = 16%	5/50 = 10%	37/50 = 74%	84%
Test Independent Variables – provide hypotheses for each independent variable; test using alpha and p-values; reject or not; statistically significant?	3/50 = 6%	7/50 = 14%	40/50 = 80%	94%
Estimated Regression Equation – determine the equation from the SPSS printout.	8/50 = 16%	3/50 = 6%	39/50 = 78%	84%
Slopes – Explain the slope for each independent variable, how does a one unit increase in the independent variable effect the dependent variable	10/50 = 20%	4/50 = 8%	36/50 = 72%	80%
Adjusted R-square – explain what percent of the variation in the dependent variable is explained by the independent variable	8/50 = 16%	6/50 = 12%	36/50 = 72%	84%
Test for Collinearity – check the VIF for each independent variable, if greater than 10 then remove and run the regression again	2/50 = 4%	12/50 = 24%	36/50 = 72%	96%