Management Information Systems, MS

Program Description

The mission of the Master of Science (MS) in Management Information Systems (MIS) is to provide students the business knowledge and technical skills needed to succeed in a globally competitive work environment. To accomplish this mission, we deliver a set of courses that emphasize technical knowledge/skills (such as advanced databases and advanced systems analysis and design) and courses that emphasize managing the development and use of information systems in companies (such as project management and corporate information management).

Outcome 1 – Technical Competence

Students demonstrate technical competence in management information systems through programming and the application of strategic concepts and analytical tools to solve business problems.

Measure 1.1 – Design Web-based Application (ISTM 631 Final Project)

Data Collection: Students work in teams to design and deliver a web-based application that meets the stated business needs of a given organization. Students can choose their selected organization. The application designed needs to be functional and usable from two viewports: desktop and mobile phone. The project is comprised of five staged deliverables: user personas, a design persona, a design mockup, a prototype, and the final application. The total number of points is evaluated based on a number of factors including, but not limited to: business needs, client requirements, and adherence to design principles covered in the class. Grades are aggregated from the student level.

Methodology or data analysis strategy: The ISTM 631 final project will be evaluated by the instructor, who will then compile those results. The results will be summarized in terms of frequencies and then communicated to the Assistant Department Head. Any deficiencies (failure to meet targets) are then discussed with our MIS Teaching Improvement Collaborative (MISTIC), a faculty group focused on sharing teaching knowledge, increasing pedagogical research, and continually improving the curriculum. Once the group makes suggestions, an implementation plan is discussed with the professor in question.

Target 1.1

Eighty percent of students will score 80% or higher for the total score on the ISTM 631 project.

Finding 1.1: Met

In the three measured sections of ISTM 631 offered in Spring of 2023, all of our students (100%) scored 80% or better on their final project. As such, our target was met.

The implication here is that by the time they have completed the final class in their course sequence (ISTM 631), all of our students are capable of effectively designing and delivering a web-based application. This finding is consistent with our previous findings: in both the

19/20 and the 21/22 academic cycles, we found the same thing (100% of our students scored 80% or higher on their final project in this course).

Measure 1.2 – Security Management (ISTM 655 Final Exam) Essay Question

Data Collection: This measure takes an essay question from the final exam in ISTM 655 (Security Management & Compliance). The selected question concerns the security of mobile devices within organizations. The rubric used to grade this short essay question is as follows:

Rubric:
0 = not attempted or no understanding of the topic
1 = emerging understanding of the topic
2 = moderate understanding of the topic
3 = considerable understanding of the topic
4 = thorough understanding of the topic

Methodology or data analysis strategy: The ISTM 655 final exam will be evaluated by the instructor, who will then compile those results. The results will be summarized in terms of frequencies and then communicated to the Assistant Department Head. Any deficiencies (failure to meet targets) are then discussed with our MIS Teaching Improvement Collaborative (MISTIC), a faculty group focused on sharing teaching knowledge, increasing pedagogical research, and continually improving the curriculum. Once the group makes suggestions, an implementation plan is discussed with the professor in question.

Target 1.2

Ninety percent of our students will earn full credit (4) on mobile security question. This is consistent with our targets in the prior administration of this assessment.

Finding 1.2: Met

In the section of ISTM 655 offered in Spring of 2023, 18 out of 19 students (94.7%) earned full credit on the mobile security question. As such, our target was met.

The implication here is that by the time they have completed the final class in their cybersecurity course sequence (ISTM 635, 645, and 655), the vast majority of our students who choose to specialize in cybersecurity have a thorough understanding of the topic of mobile device security. This finding represents an improvement on this measure: in the 19/20 academic cycle, our target was met for this measure, but in the 21/22 academic cycle, the target was only partially met (in that cycle, the understanding was captured via three exam questions, and the target was missed on 2 of the 3 questions). So, this indicates a rebound of sorts.

Use of Results

Our target for both of our technical competence measures were met. However, some of our faculty members have been questioning whether the current content in ISTM 631 is up to date with industry standards and is still providing value to our students in terms of the skills they walk away from the class with. As such, we have assigned a faculty member to teach a 689-class next spring (Spring 2024) as a directed elective that focuses more on integrating cloud computing technology into the curriculum. Currently, the focus of the class is more on design elements and responsive design. If the ISTM 689 class is as successful as the professor hopes it will be, our plan is to make this course the new ISTM 631 course starting in the Spring of 2025. We believe this new course has the potential to improve our students' technical competence and also to make them more competitive in the job market.

We are planning to continue administering these measures every other academic cycle (the next planned assessment of this measure will be in the 24/25 academic cycle) so we will continue to monitor our technical competence in these areas. If the action improves learning, we would expect to see improvements in the "Design Web-based application (ISTM 631 final project)" measure over time. It's worth noting that the course change will likely necessitate an updated measure, as well.

This action arose from a conversation between the assistant department head, the faculty member responsible for teaching ISTM 631, and a third faculty member regarding the future direction of the ISTM 631 course. It represents a jointly-developed result of that conversation.

Status Update on a Previous Action

In the 20/21 assessment cycle, we developed the following action plan related to the Oral Communication measure 'Oral Presentation - ISTM 624':

Although our target was met for this goal (90% of teams vs. the benchmark of 75%), we would still like to see improvement in this area. Going through the instructor's comments that accompanied the ratings, some themes emerged among teams performing lower on this measure (e.g., too quiet, pacing was too slow/fast, etc.). These are elements of delivery that can certainly impact our students professionally. As such, the assistant department head met with the instructor in question in the Fall 2021 semester and reviewed these findings. The instructor agreed to make a point of reviewing the rubric with students before the Product Canvas assignment to make sure that students understand how they are being evaluated on these measures, and perhaps more importantly, why. The instructor also agree to specifically point how other teams have fallen short in this measure in prior classes, allowing her the opportunity to bring up some of these specific criticisms (e.g., too quiet, pacing, etc.) and relate how those can impact an overall presentation. We believe that if students know more about how and why they are supposed to present in certain ways, they will seek to adapt their behavior accordingly. These changes will be implemented in the Fall 2022 semester, as this class is not offered in spring semesters.

We didn't capture the measure in this cycle (22/23), but when we next captured this measure (in the 21/22 cycle), we saw an improvement the results. The target was still met, but improved from 90% to 95.65% clearing the benchmark. As such, the instructor plans on maintaining that rubric review in future offerings of the course.

[See Canvas Video Rubric under *Supporting Documentation*.]

Status Update on Previous Action: Oral Communication

Canvas Video Rubric

Product Canvas Video Rubric		✎ ⚲ 🗑
Criteria	**Ratings**	**Pts**
Canvas Content The video contains all required content elements of a product canvas, including: Product Name Vision or goal Metrics to be used to evaluate the success of the product The big picture, including the epic and 3-5 main features Target group, including 2 or 3 personas A storyboard that shows how personas live it (this is the UX) A diagram that illustrates the flow: you may use a workflow diagram or use case diagram, Wireframes for 3-5 pages Sprint planning for the first 3 sprints Sprint detail for the first sprint, including the selected user stories, acceptance criteria, priority, and points.	This area will be used by the assessor to leave comments related to this criterion.	20.0 pts
Delivery The voiceover is clear and easy to understand. The speaker has rehearsed and presents in a measured, confident manner. There are no long gaps or stumbling in the delivery. The speaker connects with the audience and doesn't sound like they are reading a script. No distracting mannerisms, "uh" or other fillers.	This area will be used by the assessor to leave comments related to this criterion.	20.0 pts
Discussion Content The voiceover clearly describes the elements of the product canvas so that the viewer understands all the concepts and ideas presented.	This area will be used by the assessor to leave comments related to this criterion.	20.0 pts
Creative The video holds the viewer's attention with creative elements. These elements may include a range of options such as animations, vignettes, music, attractiveness of the design choices, interactive features, or other elements to engage the viewer and excite them about the product.	This area will be used by the assessor to leave comments related to this criterion.	20.0 pts
Introduction & Conclusion The video has an introduction that effectively sets the tone and topic for the video. The conclusion effectively summarizes and wraps up the video.	This area will be used by the assessor to leave comments related to this criterion.	20.0 pts
		Total Points: 100.0