2022-2023 Assessment Report for Department: *CSE*

General Education Core Curriculum Area:

Undergraduate Major: *Information Technology*

Department Mission Statement:
The mission of the B.S in Information Technology Program is to produce graduates who, trained in problem solving, programming, networking, computer security, database, technical communication, and business processes, are able to design, implement, and configure information technology systems to meet organizational needs.

Program Outcomes (*a.k.a.* **Student Outcomes)**:

At graduation, students should have

1) [software development] the ability to design, implement, test, and configure software programs;
2) [project management] the ability to analyze information technology requirements, assess risk, optimize resources, monitor and evaluate progress, and manage project budgets;
3) [system/theory] knowledge of the fundamental principles of information processing and decision, networking, security, and database;
4) [application] exposure to one or more information technology areas;
5) [technical communication] technical communication skills in written and oral forms;
6) [team work] the capacity to work as part of a team;
7) [ethics] awareness of the legal, ethical and societal impact of developments in the field of information technology;
8) [business] developing a business case for an organizational decision to pursue an IT project.

Curricular Map:

Each numeric entry (between 1 and 3) represents the relative weight of a course (row) towards a program outcome (column).

		Program Outcome							
Course	Course Title	1. Software Development	2. Project Management	3. System/Theory	4. Applications	5. Tech. Comm.	6. Team work	7. Ethics	8. Business
IT101	Intro to Comp Science & Info Tech	**2**			**2**				
IT113	Intro to Comp Science & Programming	**3**							
IT122	Algorithms & Data Structures	**3**							
IT213	Introduction to Object-oriented Programming	**3**							
IT221	Computer Systems Organization			**3**					
CS222	Systems Programming			**3**					
CS241	Foundations of Computer Science			**3**					
IT263	Information Protection and Security			**3**					
IT321	Internet and Web Programming			**2**	**3**				
IT326	Software Engineering	**3**				**3**	**3**		

IT330	Management and Organization Behavior						**3**		**3**
IT353	Introduction to Computer Networks			**3**					
IT373	Introduction to Database Design and Management			**3**	**2**				
IT382	Legal, Ethical, and Social Issues of Information Technology							**3**	
IT462	Systems, Risk and Decision Analysis								**3**
IT466	Project Management		**3**						**3**
IT481 IT 482	Senior Secure System Design Project		**3**	**3**		**2**			**2**

Our process target:

For Information Technology we intend to eventually implement a process like that used for the (much larger) Computer Science program, described here. For this report, a simplified process is used, described in the next section.

- The above curricular map was obtained by first considering all courses and assigning weights between 1 and 3 (inclusive) to reflect the strength of their contribution, with the following interpretation.

Contribution	*Interpretation*
1	Introductory / preliminary
2	Reinforcement / extension / application
3	Major component

Next, it was pruned keeping only the required courses, and then pruning it further by eliminating weights of 1 and 2 unless one of three criteria (omitted here) were met.

- For each Program (/Student) Outcome, we obtain a number between 1 and 4 through a weighted sum of scores from contributing courses as per the curricular map shown above. Our acceptance threshold for each program outcome is 3.0.
- The scores from contributing courses come from the respective instructors who are required to submit an assessment report for each offering of such courses. This report outlines the relation between the scores and the course learning outcomes.

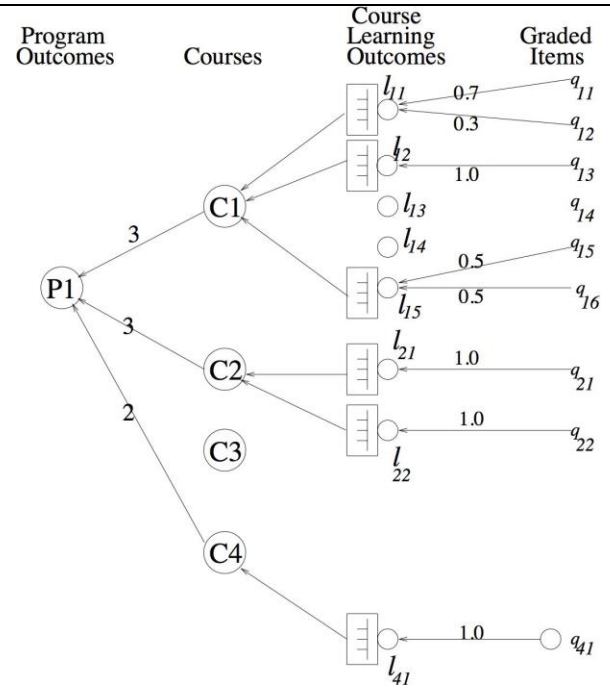
- The report also provides comments regarding successful strategies and plans for future modifications. While we have a numeric acceptance threshold, the instructors' comments are always important.
- The numeric score for the j^{th} Program Outcome is a normalized weighted sum

$$Score\_Outcome_j = \frac{\sum_i (n_{ij} * s_{ij})}{\sum_i n_{ij}}$$

where the weights n_{ij} are the non-zero entries in the column for Program Outcome j in the curricular map, and each value s_{ij} is a score that comes from the assessment of the i^{th} course specifically for the j^{th} Program Outcome. For example, the curricular map shows that Program Outcome 5 (Technical Communication) will be measured using three courses CS326 Software Engineering, CS423 Compiler Writing, and CS331 Computer Architecture, with impact factors of 3, 3, and 2 respectively. If the numeric scores assessed by those three courses are 3, 2, and 4 respectively, then the score computed for Student Outcome 5 is given by (3*3 + 2*3 + 4*2)/(3+3+2), i.e., 2.88.
We limit the score s_{ij} (reported by a course i for a Student Outcome j) to a number between 1 and 4 with the following interpretation.

Student Outcome score	*Interpretation*	
1	Unsatisfactory	
2	Marginal	
3	Satisfactory	
4	Excellent	

- The instructor of the i^{th} course computes a score s_{ij} for the j^{th} Program Outcome as follows.



The first step is to identify the largest disjoint set *L* of course learning outcomes corresponding to the Program Outcome at hand at hand. For that set *L*,

1. The instructor decides on a performance metric to interpret an average score for a course outcome as unsatisfactory, marginal, satisfactory, or excellent, resulting in the basis for a four-point scale; this takes care of variations among courses in grading, e.g., relative versus absolute, partial credit versus all-or-none grading.
2. Each course outcome *l* in *L* is tied to a set of gradable items in the course, e.g., a project, specific questions in the final exam, a presentation, etc. The sets of items should be disjoint among learning outcomes. In the above figure, course outcome l_{11} would be tied to questions q_{11} and q_{12}.
3. Weights are assigned to these questions or items (in Figure 1, 0.7 and 0.3 for questions q_{11} and q_{12} respectively); using them, a formula is written to compute a normalized weighted sum from the scores for those questions or items;
4. From a table of scores obtained by the students on those gradable items, one numeric score is computed for each student per course outcome *l*.
5. Those numeric scores are then averaged over the whole class to get one numeric score p_l for each course outcome *l*.

	6. Using the performance metric, a number q_l is obtained by quantizing p_l to a four-point scale. 7. The above is repeated for each *l* in *L.* 8. The scores q_l (in the four-point scale) are averaged over all *l* in *L.* The result is $s_{ij,}$ the numeric score (between 1 and 4) from course *i* to the Student Outcome *j*. Due to the low enrollment number for the B.S. in Information Technology, we perform the above-mentioned assessment by using the data compiled for 3 years. This report thus presents available data for three years.
	Our process in this report: Assessment of the IT program faces many hurdles. Almost all IT courses are taught and assessed primarily as a CSE course or an MGT course, and it is difficult to pick out IT students. When available, IT-specific data will be provided and when not, class-wide assessment data will be presented. In a span of three years, some faculty depart. Other faculty for some of these courses are adjuncts and not NMT employees. These factors complicate assessment data collection. Additional communication about assessment requirements will be needed, such as stipulating the assessment specifics in future part-time instructor contracts. Also, collecting data across a span of several years poses additional challenges. For these reasons, we have changed from performing the assessment every three years to instead perform assessments annually over a rolling three-year basis, thus always providing two years' data for the next assessment so it only needs to incorporate one year of new data. In 2020, the new chair proposed and received AVPAA approval for a streamlined process as follows. Due to redundancy of assessment implied by the assessment map, each program outcome was assessed in a designated best course for assessing that outcome as follows: Software Development: best assessed in IT 326 Software Engineering Project Management: best assessed in IT 466 Project Management System/Theory: best assessed in IT 373 Intro to Database Systems Applications: best assessed in IT 321 Internet and Web Programming Technical Communication: best assessed in IT 326 Software Engineering Team Work: best assessed in IT 326 Software Engineering Ethics: best assessed in IT 382 Legal Ethical and Social Issues of Tech Business: best assessed in IT 462 Systems and Risk For the 2020-2021 assessment, IT 466 was not offered in the academic year due to a scheduling change. The Project Management outcome is instead assessed using IT 481-482, the yearlong capstone senior design

	project. The department chair was happier with the assessment report thus produced than the previous IT466 assessment and proposes to assess this outcome in IT 481-482 going forward. Thus, the future proposed IT assessment strategy is: Software Development: best assessed in IT 326 Software Engineering Project Management: best assessed in IT 481-482 Senior Design Project System/Theory: best assessed in IT 373 Intro to Database Systems Applications: best assessed in IT 321 Internet and Web Programming Technical Communication: best assessed in IT 326 Software Engineering Team Work: best assessed in IT 326 Software Engineering Ethics: best assessed in IT 382 Legal Ethical and Social Issues of Tech Business: best assessed in IT 462 Systems and Risk Based on enrollment figures, the new data in 2022-23 lie in outcomes #2 and #7.

Enrollment Data

Due to the low enrollment for the B.S. in Information Technology program, we present the BS in IT assessment data for three years, starting Fall 2020. The table below shows *enrollment* data accumulated for three years. Even aggregating over three years, the enrollments are low enough that statistical significance may be doubted at times. *The chair notes that some CSE or MGT courses might inadvertently have no IT section created in some semesters, and in that case IT students may have taken the course as CSE or MGT or some other prefix and apply it to their IT degree by petition. This affects enrollment data. Note that numbers collected from the Banner online system may differ from the instructor's report of how many IT students actually attempted the course in a given year. Also Due to instructor availability and a scheduling change, IT 466 was not offered in F20 or S21.

Course	Course Title	Fall20	Spring21	Fall21	Spring22	Fall22	Spring23
IT101	Intro to Comp Science & Info Tech	4		0	0	2	0
IT113	Intro to Comp Science & Programming		0	0	1	0	0
IT122	Algorithms & Data Structures	1	1	0	2	0	0
IT213	Introduction to Object-oriented Programming		2		1		0
IT221	Computer Systems Organization	3		2			

CS222	Systems Programming						
CS241	Foundations of Computer Science						
IT263	Information Protection and Security						
IT321	Internet and Web Programming	4		0		0	
IT326	Software Engineering		5		0		0
IT330	Management and Organization Behavior						
IT353	Introduction to Computer Networks	4		0		0	
IT363	Computer Security				1		0
IT373	Introduction to Database Systems		4		4		0
IT382	Legal, Ethical, and Social Issues of Information Technology		2		4		2
IT462	Systems, Risk and Decision Analysis		2				0
IT466	Project Management				4		1
IT481	Senior Secure System Design Project	3		4		1	
IT482	Senior Secure System Design Project		3		3		1

Assessment

Due to the low enrollment for the B.S. in Information Technology program, we present the BS in IT assessment data for three years, starting Fall 2020, and conduct the above-mentioned assessment by using the data compiled for 3 years. The table below shows *outcomes* data accumulated for three years.

#1 the ability to design, implement, test, and configure software programs

<table>
<tr><th>Student Learning Outcomes</th><th>Assessment Procedures</th><th>Assessment Results</th><th>Assurance</th></tr>
<tr><td>Learning Outcomes of the Program—Students will be able to:</td><td>Process/Instrument used:
Direct measures. Graded items are weighted and linked to courses; courses are weighted, aggregated, and linked to student outcomes.</td><td>What were your findings?
Score range: 1 (unsatisfactory),
2 (marginal),
3 (satisfactory), and
4 (excellent).</td><td>Our department believes we fulfill this Learning Outcome because:
(state evidence in 30 words or less)</td></tr>
<tr><td>1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions</td><td>Direct Measure:

Quantitative Assessment Procedure on Course Learning Outcomes 3-4 in IT 326.</td><td>
<table>
<tr><th>Course</th><th>Score</th><th>Weight</th><th>Overall</th></tr>
<tr><td>IT326 Software Eng</td><td></td><td></td><td rowspan="3">3.67</td></tr>
<tr><td>IT326 2021 LO3</td><td>3</td><td>3</td></tr>
<tr><td>IT326 2021 LO4</td><td>4</td><td>3</td></tr>
<tr><td>IT326 2021 LO5</td><td>4</td><td>3</td><td></td></tr>
</table>
</td><td>the overall scores for outcomes 3 and 4 are higher than 3.0, our acceptance threshold.</td></tr>
</table>

Adjustment/Improvement
The total number of IT major undergraduate students who took IT 326 Software Engineering during the period is five: five in Spring 2021, and 0 in Spring of 2022 and 2023. Since there were zero students in Spring 2022 and 2023 numbers reported are from the 2021 IT 326 assessment. Due to data inconsistency caused by some course design decisions due to Covid19, the assessment was based on only the final exam and final team-based project. Students' understanding of requirements engineering and software design are satisfactory but has room for improvement. In Spring 2021, individual assignments which help students gain hands-on experience in requirement analysis and system design were designed and given to students.

#2 the ability to analyze information technology requirements, assess risk, optimize resources, monitor and evaluate progress, and manage project budgets

<table>
<tr><th>Student Learning Outcomes</th><th>Assessment Procedures</th><th>Assessment Results</th><th>Assurance</th></tr>
<tr><td>Learning Outcomes of the Program—Students will be able to:</td><td>Process/Instrument used:
IT 466 direct measures. Graded items are weighted and linked to courses; courses are weighted, aggregated, and linked to student outcomes. Covered Fall 2018 and Fall 2019.
IT 481-482 direct measures: Project plan with major tasks, timelines, method, and outcomes. Final report section discusses actual enactment of plan.</td><td>What were your findings?
Score range: 1 (unsatisfactory),
2 (marginal),
3 (satisfactory), and
4 (excellent).</td><td>Our department believes we fulfill this Learning Outcome because:
(state evidence in 30 words or less)</td></tr>
<tr><td>2. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions</td><td>Direct Measure:

Quantitative Assessment Procedure on all 9 course outcomes for combined IT466+MGT476+EMGT508.</td><td><table><tr><th>Course</th><th>Score</th><th>Weight</th><th>Overall</th></tr><tr><td>IT466 F2020:</td><td>4</td><td>3</td><td rowspan="3">3.5</td></tr><tr><td>IT481-2 F2021-S22:</td><td>3</td><td>3</td></tr><tr><td>IT481-2: F2022-S23</td><td></td><td>3</td></tr></table></td><td>The overall scores for Student outcome 2 is higher than 3.0, our acceptance threshold.</td></tr>
</table>

Adjustment/Improvement
The chair has determined that assessment in 481-482 was more informative than assessment in IT 466 done in prior years. He proposes to assess outcome #2 using IT 481/482 going forward. However, no data was provided in 2022-23, in which only one student registered for IT 481-482.
Areas for future improvement of future offerings of IT 481/482: • Review the construction of a business case. Use a case study with a homework assignment.

- Identify the individual interests and deficiencies of the students at the beginning of IT 481.
  Offer readings on IT project management with a follow-up assignment.
- Review the use of statistics in IT projects.

#3 knowledge of the fundamental principles of information processing and decision, networking, security, and database

<table>
<tr><th>Student Learning Outcomes</th><th>Assessment Procedures</th><th>Assessment Results</th><th>Assurance</th></tr>
<tr><td>Learning Outcomes of the Program—Students will be able to:</td><td>Process/Instrument used:
Direct measures. Graded items are weighted and linked to courses; courses are weighted, aggregated, and linked to student outcomes.</td><td>What were your findings?
Score range: 1 (unsatisfactory),
2 (marginal),
3 (satisfactory), and
4 (excellent).</td><td>Our department believes we fulfill this Learning Outcome because:
(state evidence in 30 words or less)</td></tr>
<tr><td>3. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions</td><td>Direct Measure:

Quantitative Assessment Procedure on Course Learning Outcomes 1 and 2 in IT 373.</td><td>
<table>
<tr><th>Course</th><th>Score</th><th>Weight</th><th>Overall</th></tr>
<tr><td>IT373 Database Mgt</td><td></td><td></td><td rowspan="7">2.25</td></tr>
<tr><td>IT373 2020 LO1</td><td>3</td><td>3</td></tr>
<tr><td>IT373 2021 LO1</td><td>2</td><td>3</td></tr>
<tr><td>IT373 2022 LO1</td><td>n/a</td><td></td></tr>
<tr><td>IT373 2020 LO2</td><td>3</td><td>3</td></tr>
<tr><td>IT373 2021 LO2</td><td>1</td><td>3</td></tr>
<tr><td>IT373 2022 LO2</td><td>n/a</td><td>3</td></tr>
</table>
</td><td>the overall scores for both outcomes is 3.0, our acceptance threshold.</td></tr>
</table>

Adjustment/Improvement
_ Splitting the project deliverables in two parts with different due dates was favorably received. _ Both instructors feel that the inclusion of non-relational databases (already in the catalog) enhances the practical part of the course. MongoDB was included in 2020; both MongoDB and Neo4J were included in 2021.

#4 exposure to one or more information technology areas

<table>
<tr><th>Student Learning Outcomes</th><th>Assessment Procedures</th><th>Assessment Results</th><th>Assurance</th></tr>
<tr><td>Learning Outcomes of the Program—Students will be able to:</td><td>Process/Instrument used:
Direct measures. Graded items are weighted and linked to courses; courses are weighted, aggregated, and linked to student outcomes.</td><td>What were your findings?
Score range: 1 (unsatisfactory),
2 (marginal),
3 (satisfactory), and
4 (excellent).</td><td>Our department believes we fulfill this Learning Outcome because:
(state evidence in 30 words or less)</td></tr>
<tr><td>4. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions</td><td>Direct Measure:

Quantitative Assessment Procedure on Course Outcome #2 for IT321.</td><td>
<table>
<tr><th>Course</th><th>Score</th><th>Weight</th><th>Overall</th></tr>
<tr><td>IT321 Internet and Web Programming</td><td></td><td></td><td rowspan="4">3</td></tr>
<tr><td>IT 321 Fall 2020</td><td>3</td><td>3</td></tr>
<tr><td>IT 321 Fall 2021</td><td>n/a</td><td>3</td></tr>
<tr><td>IT 321 Fall 2022</td><td>n/a</td><td>3</td></tr>
</table>
</td><td>the overall scores for outcome 2 is 3.0, our acceptance threshold.</td></tr>
</table>

Adjustment/Improvement
(IT 321 Fall 2020) The new Java version was inconsistent with the old web server. The instructors will test the environment to give new instructions regarding how to setup the proper development environment. The second one is students have trouble when they first work on HW5 – using AJAX to retrieve a data generated by the servlet from the database. The instructor will separate this assignment into three parts so students have time to work on the individual concepts one by one. No students were enrolled in IT 321 in Fall 2021-2022.

#5 technical communication skills in written and oral forms

<table>
<tr><th>Student Learning Outcomes</th><th>Assessment Procedures</th><th>Assessment Results</th><th>Assurance</th></tr>
<tr><td>Learning Outcomes of the Program—Students will be able to:</td><td>Process/Instrument used:
Direct measures. Graded items are weighted and linked to courses; courses are weighted, aggregated, and linked to student outcomes. Covered Fall 2019, and Spring 2020.</td><td>What were your findings?
Score range: 1 (unsatisfactory),
2 (marginal),
3 (satisfactory), and
4 (excellent).</td><td>Our department believes we fulfill this Learning Outcome because:
(state evidence in 30 words or less)</td></tr>
<tr><td>5. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions</td><td>Direct Measure:

Quantitative Assessment Procedure on Course Learning Outcomes 2 and 6 in IT 326.</td><td><table><tr><th>Course</th><th>Score</th><th>Weight</th><th>Overall</th></tr><tr><td>IT 326 Software Eng</td><td></td><td></td><td rowspan="4">3.5</td></tr><tr><td>IT326 2021 LO2</td><td>3</td><td>3</td></tr><tr><td>IT326 2021 LO6</td><td>4</td><td>3</td></tr><tr><td>IT382 2023 CLO2-4</td><td>3.5</td><td>3</td></tr></table></td><td>the overall scores for both Student outcome 1
is higher than 3.0, our acceptance threshold.</td></tr>
</table>

Adjustment/Improvement
IT 326: Since no IT students registered for IT 326 in 2022-23, the numbers reported are from the 2021 IT 326 report. IT 382: I plan to make new recordings to share with the students on organization, design, and creativity in making persuasive multimedia content. These resources will provide additional instruction without taking more class time.

#6 the capacity to work as part of a team

<table>
<tr><th>Student Learning Outcomes</th><th>Assessment Procedures</th><th>Assessment Results</th><th>Assurance</th></tr>
<tr><td>Learning Outcomes of the Program—Students will be able to:</td><td>Process/Instrument used:
Direct measures. Graded items are weighted and linked to courses; courses are weighted, aggregated, and linked to student outcomes. Covered Spring 2019-2021.</td><td>What were your findings?
Score range: 1 (unsatisfactory),
2 (marginal),
3 (satisfactory), and
4 (excellent).</td><td>Our department believes we fulfill this Learning Outcome because:
(state evidence in 30 words or less)</td></tr>
<tr><td>6. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions</td><td>Direct Measure:

Quantitative Assessment Procedure on Course Learning Outcome 7 in IT 326.</td><td><table><tr><th>Course</th><th>Score</th><th>Weight</th><th>Overall</th></tr><tr><td>IT 326 Software Eng</td><td></td><td></td><td rowspan="2">4</td></tr><tr><td>IT326 2021 LO7</td><td>4</td><td>3</td></tr></table></td><td>the overall scores for both Student outcome 1
is higher than 3.0, our acceptance threshold.</td></tr>
</table>

Adjustment/Improvement
Since no students enrolled in IT326 in 2022-2023, the numbers reported are from the Spring 2021 IT326 assessment.

#7 awareness of the legal, ethical and societal impact of developments in the field of information technology

<table>
<tr><th>Student Learning Outcomes</th><th>Assessment Procedures</th><th>Assessment Results</th><th>Assurance</th></tr>
<tr><td>Learning Outcomes of the Program—Students will be able to:</td><td>Process/Instrument used:
Direct measures. Graded items are weighted and linked to courses; courses are weighted, aggregated, and linked to student outcomes.</td><td>What were your findings?
Score range: 1 (unsatisfactory),
2 (marginal),
3 (satisfactory), and
4 (excellent).</td><td>Our department believes we fulfill this Learning Outcome because:
(state evidence in 30 words or less)</td></tr>
<tr><td>7. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions</td><td>Direct Measure:

Quantitative Assessment Procedure on Course Learning Outcomes (1) and (4) on IT 382, Legal Ethical and Social Issues of Computing</td><td>
<table>
<tr><th>Course</th><th>Score</th><th>Weight</th><th>Overall</th></tr>
<tr><td>IT382 Legal Ethical and Social Issues of Computing</td><td></td><td></td><td rowspan="4">3.6</td></tr>
<tr><td>IT 382 Spring 21</td><td></td><td>3</td></tr>
<tr><td>IT 382 Spring 22</td><td></td><td>3</td></tr>
<tr><td>IT 382 Spring 23</td><td>3.6</td><td>3</td></tr>
</table>
</td><td>the overall scores for both Student outcome 1
is higher than 3.0, our acceptance threshold.</td></tr>
</table>

Adjustment/Improvement
The IT 382 faculty member from the CLASS department provided a 382 assessment in 2023 with numeric scores on the scale requested by the CSE chair. The IT 382 faculty member had two IT students in a class full of CSE students and did not provide separate reports to distinguish IT from CS in their report. The remedial actions noted were for program outcome #5 above.

#8 developing a business case for an organizational decision to pursue an IT project

<table>
<tr><th>Student Learning Outcomes</th><th>Assessment Procedures</th><th>Assessment Results</th><th>Assurance</th></tr>
<tr><td>Learning Outcomes of the Program—Students will be able to:</td><td>Process/Instrument used:
Direct measures. Graded items are weighted and linked to courses; courses are weighted, aggregated, and linked to student outcomes. Covers Spring 2019-2021.</td><td>What were your findings?
Score range: 1 (unsatisfactory),
2 (marginal),
3 (satisfactory), and
4 (excellent).</td><td>Our department believes we fulfill this Learning Outcome because:
(state evidence in 30 words or less)</td></tr>
<tr><td>8. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions</td><td>Direct Measure:

Quantitative Assessment Procedure on Course Learning Outcomes (5) and (6) in IT 462.</td><td><table>
<tr><th>Course</th><th>Score</th><th>Weight</th><th>Overall</th></tr>
<tr><td>IT 462 Systems and Risk</td><td></td><td></td><td rowspan="3">3.0</td></tr>
<tr><td>IT462 Outcome 5</td><td>3</td><td>3</td></tr>
<tr><td>IT462 Outcome 6</td><td>3</td><td>3</td></tr>
</table></td><td>the overall scores for both Student outcome 1 is equal to 3.0, our acceptance threshold.</td></tr>
</table>

Adjustment/Improvement
Most IT majors enrolled in the class (offered simultaneously under other MGT/EMGT course titles) do not have adequate statistics & probability preparations to learn well in the quantitative modules of the course. The IT program should review statistics background required for the program versus the statistics background expected in this course and adjust requirements or course prerequisites.
Chair observes that MGT course outcomes are being assessed on a different scale than CSE which needs review. For example, qualitative interpretations such as “Good” or “Average” are given instead of CSE’s 4-point scale from unsatisfactory to excellent. The chair also notes that the numbers of students reported for these assessments are so low as to make interpretation of statistics questionable. For example, there were zero IT students enrolled in IT 462 in 2022-2023, so the numbers reported here are from prior years.

Concluding Comments:

From the available collected data, the IT program outcomes are being delivered satisfactorily. Certain articulation and prerequisite problems identified in IT321 and IT462 may need to be addressed. This can be understood within a broader context: during the past year the IT program faculty have been engaged in ongoing discussions regarding program name, branding, how to provide IT with more dedicated attention given their other CS / MGT commitments, and how to grow the program.

The chair's understanding of the IT program is primarily qualitative. The NMT IT program is more technical and more difficult than is typical at other universities. It could benefit from additional attention and branding. Another item discussed heavily is whether the IT program should offer a BA degree. Although we have not seen a way to lower the math requirements of the degree without compromising the program, there are reasons to consider it further.

Submitted by: Clinton Jeffery Department Chair: Dr. Clinton Jeffery Date: 1/28/2024

Reviewed by Assessment Director/Director Signature: Date:
Comments:

Reviewed by Faculty Senate Assessment Committee/Committee Chair Signature: Date:
Comments:

Reviewed by Associate VP of Academic Affairs/AVPAA Signature: Date:
Comments:

Submitted to Vice President of Academic Affairs/Date: (no later than 9/15)