ANNUAL PROGRAM ASSESSMENT FORM

Name of Program: Computer Information Systems

Report prepared by: Michael Knupp

1) List of degree offerings:

a. BS Computer Information Systems (Current)
b. BS Computer Information Systems / MBA (Current)
c. BS Integrated Technology – CIS (Pre Fall 2023)
d. BS Integrated Technology – CIS / MBA (Pre Fall 2023)
e. BS Computer Information Systems (legacy ~ pre Integrated Technology)
f. BS Computer Information Systems / MBA (legacy ~ pre Integrated Technology)

2) **Progression /Graduation update (NECHE 8)**

Retention trends are strong, even with some percentages being less than 75%. The retention rate is strongly impacted when enrollment numbers are low. For example, if enrollment is 2 for a given fall, if only 1 student changes their degree, this will show as a 50% retention rate.

BS Integrated Technology - Computer Information Systems (CIS) Retention Rate				
Fall Term	**HU or Program**	**1st-2nd Year**	**1st-3rd Year**	**1st-4th Year**
2018	HU	100%	100%	100%
	Program	100%	100%	100%
2019	HU	100%	50%	50%
	Program	100%	50%	50%
2020	HU	67%	100%	100%
	Program	33%	33%	33%
2021	HU	75%	75%	75%
	Program	75%	75%	75%
2022	HU	100%	100%	---
	Program	100%	50%	---
2023	HU	50%	---	---
	Program	50%	---	---

Retention Trends for Previous 6 Years…

1st - 2nd Year Within Husson / Within Program 82 % / 76 %
1st - 3rd Year Within Husson / Within Program 85 % / 62 %
1st - 4th Year Within Husson / Within Program 81 % / 65 %

Approved: Deans Council MM-DD-YYYY

Graduation Rates (2015 to 2021 cohorts, legacy BS CIS & BS CIS/MBA programs). Per the Institutional Research Department, graduation rates are for students that originally started in the program.

BS Integrated Technology - Computer Information Systems (CIS) Graduation Rate			
Fall Term	**4-Year**	**5-Year**	**6-Year**
2015	0%	0%	0%
2016	14%	29%	29%
2017	25%	25%	25%
2018	0%	100%	100%
2019	0%	0%	0%
2020	0%	33%	---
2021	50%	---	---

Another impactful measurement of graduation statistics is the number of conferred degrees. Conferred degrees by graduating class (Summer/Fall/Spring).

2020 (SS 19, FA 19, SP20)	5
2021 (SS 20, FA 20, SP21)	3
2022 (SS 21, FA 21, SP22)	1
2023 (SS 22, FA 22, SP23)	2
2024 (SS 23, FA 23, SP24)	4
2025 (SS 24, FA 24, SP25)	5

3) **Program's Mission Statement (NECHE standard 1):**
The mission statement of the program is the mission statement for the School of Technology and Innovation (SoTI). The SoTI mission statement aligns to the mission statement of Husson University and the College of Business by emphasizing student engagement, experiential learning, excellence of teaching, and contribution to a greater community.

"The School of Technology and Innovation provides high quality, student centric, experiential education, delivered by engaged faculty in partnership with the community, to prepare students for professional careers and leadership positions while enhancing regional economic development."

4) **Faculty updates (NECHE Standard 6)**

New Faculty

- There were no new faculty added, but several changes in SOTI staffing are worth noting.
    - Dr. Gerald Wright resigned from Husson prior to the start of the Fall 2024 semester.
    - Mr. Scott Traylor passed away prior to the start of the Fall 2024 semester.
    - Mr. Tharun Thiyagarajan's base contractual teaching load has changed from 9 credits per semester to 12 credits per semester starting in the Fall 2025 semester.
    - Mr. Brave Williams's base contractual teaching load has changed from 9 credits per semester to 12 credits per semester starting in the Fall 2025 semester.
    - Mrs. Ashlie Beals job description and contract now include teaching up to 9 credits per semester starting in the Fall 2025 semester.

Grants

- In July of 2024 a 3rd grant was secured from the Alfond Foundation. This grant totals $1.56M and will be payable in three $500K installments starting in July 2025. The funds will mainly support personnel costs across the school.
- Last year SOTI secured $548K in Congressional "ear-marked" funds. These funds support the entire school and are not specifically dedicated to the CIS program. The funds will support an upgrade to the computer lab in HAH 207, a complete rebuild of the computer lab in Peabody Hall (to be named "The Applied Technology and Innovation Lab"), and additional equipment to support the XR program.

5) **Program Goals / Strategic initiatives (NECHE Standard 2, 5):**
The strategic goals offered are school level. Where appropriate, operational goals are more program focused.

Strategic Goal	Operational Goal	Assessment Plan	Notes
Build SoTI brand awareness in an effort to increase application submissions and overall enrollment into the SoTI programs.	Specifically through the Outreach Specialist, deepen existing relationships and visitation with regional high schools while expanding the outreach into technical schools, community colleges, and high schools outside of the state of Maine.	Continue with the outreach campaign as led by Ashlie Page and evaluate the effort in spring 2025 as documented by the number of events and number of student contacts. Compare application submissions and tuition deposits of current year against prior years.	Per data from the Outreach Specialist… 72 different individual outreach seminars at 25 unique locations reaching 1066 students. Additional outreach included attending the Hannaford Associates Picnic for COB (300 attendees), Girl Scouts of Maine Build, Create, Innovate event (250 attendees) and the Brewer High School College/Career Fair with 700 attendees. Anecdotal experiences support many students who attend open house or accepted students days initially discovered Husson through the outreach efforts.
	Participate in external technology fairs and competitions.	Itemize the number of events participated in with a target of at least 1.	While SOTI did not set up a table at SkillsUSA, the school was represented via faculty participation as judges in various events.
	Serve as host facility for technology related events.	Itemize the number of events participated in with a target of at least 1.	Host site for Husson Alive 2025 and the CS Summer of Fun 2025 Conference.
	Enhance and leverage the SoTI website and social media.	Compare the current website against the website from last year and itemize updates/enhancements. Review the activity on social media platforms and evaluate engagement.	The Marketing Department continues to make small changes to the website and have taken ownership of social media postings. Additional work is needed to modernize and expand the information and visual aspects of the SOTI web pages.

Strategic Goal	Operational Goal	Assessment Plan	Notes
Mature facilities and curriculum to ensure relevancy, foster student engagement, and promote high academic rigor.	Create a design for modernizing the Peabody “CIS Lab” with new equipment, new work areas, and new storage solutions.	Evaluate status of design in spring 2025.	A design was created to be implemented over the summer of 2025.
	Create a design plan to upgrade the HAH 207 computer lab to fully support all IT and XR classes across the curriculum.	Evaluate status of design in spring 2025.	A design was created to be implemented over the summer of 2025.
	Through work within the Davis Grant effort, rebuild the IT 431 IT Security Principles and Practices course to align with Quality Matters best practices.	Evaluate the final course build for IT 431.	Marlon Lagulos completed the Davis Grant work effort over the academic year and implemented the course in the SP 2025 semester.
	Transform IT 410 Database Design course from an online 7 week modality to an on-ground 15 week modality.	Evaluate final course build and delivery.	Michael Knupp completed the course redesign and implemented the in-person course in the FA 2025 semester.
	Design a Certificate in IT Security.	Review the finalized certificate and then run annual reports to evaluate enrollment.	The certificate has been internally approved within SOTI and will be officially approved in 2025-2026 academic year and available for official use starting in the Fall 2026 semester.

6) **Curricular mapping / Outcome assessment (NECHE Standard 4, 8)**

- Please review and update the current curricular mapping and ensure syllabi reflect the mapping found at the official Husson Mapping Site (HERE)
- Please update the progress made on specific learning outcomes below. If specific external tools are used (i.e. Praxis, Peregrine, etc.) be sure to include them.

Student Learning Outcome	Courses mapped to SLO	Summary of course activities for the given academic year	Action
1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify and apply solutions	IT 241 IT 242 IT 341 IT 342 IT 431 IT 471 IT 481 IT 482	All courses with the exception of IT 341 and IT 342 were offered during the current academic year. IT 341/342 Managing and Maintaining a Windows Server 1/2 will be offered in FA 2025 and SP 2026. Professor Lagulos was able to offer IT 431 – Principles and Practice in IT Security using the course he designed within the Davis Grant work. The IT 482 IT Capstone class had an enrollment of 14 students which is the largest enrollment in many, many years.	No actions needed at this time.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline	IT 261 IT 262 IT 331 IT 341 IT 342 IT 410 IT 481 IT 482	Refinements to course projects in IT 262 and IT 410 were made to push more design and documentation elements of project execution. All students in IT 481 Project Management Techniques completed a self-selected and managed project. Students in IT 482 IT Project Development completed a self-selected group project using Agile project management practices.	No specific actions needed.

Student Learning Outcome	Courses mapped to SLO	Summary of course activities for the given academic year	Action
3. Communicate effectively in a variety of professional contexts	IT 241 IT 242 IT 261 IT 262 IT 351 IT 410 IT 431 IT 471 IT 481 IT 482	As mentioned above, more written documentation and presentations were added for course projects in IT 261, 262, and 410. Some advancements were made in the directed professional journaling assignments within the IT 351 CIS Internship course.	No additional action needed at this time.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles	IT 241 IT 242 IT 331 IT 431 IT 471	IT 431 enhancements pushed us further into the professional responsibilities of IT security.	In general, SoTI culture needs to evolve to push the overall professionalism standards for our students. Each course should have more targeted areas with regards to legal and ethical issues.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline	IT 351 IT 482	Positive results from the internships (IT 351) and the group in senior capstone course (IT 482). A graduating senior landed a project management job within the GE plant in Bangor. This was also the location of where he did his internship and where he previously worked on a part time basis.	No formal action required outside of standard advancement and maturation of course offerings.

The Peregrine Exam is delivered in the IT 482 - IT Project Development class that all CIS and Software Development students take. The results are not parsed for only CIS students. They represent the larger student body of the school. Results and notes have been updated for the data covering the 2024 – 2025 academic year.

Student Learning Outcome	Assessment Tool & Results	Notes
Direct: At least 80% of all graduating IT majors will score in the 50th percentile or higher in comparison to other peer institutions.	Peregrine Capstone Examination 4/14 = 36% Exam Percentiles for 14: 4, 1, 99, 1, 35, < 1 ,< 1 ,< 1 ,60 ,99 ,<1 ,<1 ,<1 ,<1 Exam Scores for 14: 45, 43.75, 31.25, 68.75, 43.75, 50, 38.75, 32.50, 26.25, 38.75, 36.25, 56.25, 52.50, 83.75.	Many students did not score above the 50th percentile. Lower scores may be a result of more elective choices for business classes. Historically the business classes were more prescriptive. The high elective choice for students may have a negative effect on scores within the business related sections of the Peregrine exam.
Direct: On the IT 482 capstone project course, at least 80% of all graduating IT majors will demonstrate acceptable or exemplary levels (A or B).	IT 482 I.T. Project Development – Capstone 13/14 = 93 % Final Grades: B+, A, B+, A, A, A-, A, B+, D, A, A-, A, B, A-.	Students in this cohort did exceptionally well in the capstone course. This was the instructor's (Dr. Michael Knupp) first time through with the course. Future work needs to determine a better way to address individual accountability within the group project.
Indirect: The Peregrine Exit survey targets 10 individual IT related goals. Student self-assess each goal as either Strongly Agree, Agree, Neutral, Disagree or Strongly Disagree Assessment Target: At least 90% of the questions will be answered with an average value of 4 or greater (4 = agree, 5 = strongly agree).	Peregrine Exit Survey <u>Average Value for Each Question</u> Q1 = 4.13 Q2 = 4.14 Q3 = 3.75 Q4 = 4.35 Q5 = 4.21 Q6 = 4.46 Q7 = 4.07 Q8 = 3.82 Q9 = 4.19 Q10 = 4.19	8/10 questions were above the 4.0 threshold, and the other 2 are very close. See Appendix I for the specific verbiage of these ten questions. The questions touch each of the 5 core program outcomes, which can be viewed in Appendix II.
Indirect: IT 351 Employer Evaluation. At least 80% of all graduating students will receive a mean score of 4.0 (agree / strongly agree) on their internship employer evaluation.	Employer Evaluation 2024 SS: 4/4 2024 FA: 1/2 2025 SP: 2/3	Employer evaluations continue to come back very high. In FA 2024, one student went off-grid and stopped responding in the class and to emails. In SP 2025, one student did not secure an internship and took an incomplete in order to complete the internship in SS 2025.

Approved: Deans Council MM-DD-YYYY

7) **Executive Summary:**
   - Please provide a summary of the major findings of the annual report.
   - Be sure to address all that are applicable:
     - Significant achievements
     - Identified opportunities
     - Identified threats or challenges
     - Adequacy of resources
     - Budgetary considerations

Fall of 2024 marks the beginning of the 2nd year of a revised CIS degree away from Integrated Technology. We are seeing positive results from this change. Enrollment continues to grow. Courses are being revised and updated where needed. And facilities continue to improve to deepen the overall student experience. The data supports a solid upward trend in interest in the program and we are optimistic this will continue.

On the academic side, we continue to see positive growth. Courses such as IT 241 - Maintaining and Managing a PC 1 and IT 410 - Database Design ran with full cohorts in the Fall 2024. We ran two sections of IT 331 - Networking in the Fall 2024 semester. With changes in requirements for the audio and video engineering majors, IT 331 will run with only one section in the fall 2025 semester to exclusively serve our CIS majors. By exclusively serving the CIS majors, we have an opportunity to expand the curriculum. There is a dedicated section of HE 111 - Husson Experience set up for fall 2025 with a current enrollment of 22. Professor Lagulos was able to advance the IT 431 - Theory and Practice of IT Security through his involvement with the Davis Grant. Lastly, the SOTI team is excited about a certificate in IT Security that has been designed and is planned for formal approval in the 2025-2026 academic year. This certificate allows us to have a cybersecurity offering and will also push us to offer new courses in IT security.

The facilities to support the CIS program also continue to be improved. The refresh of Peabody 220 in the summer of 2023 was a welcome change, but in the end proved inadequate to fully meet the needs of the program. The Congressional earmarked funds that were previously approved will be used to complete a full lab overhaul of Peabody 220. The current design utilizes a double classroom space in Peabody 226. The project is designed and scheduled to be completed over the summer of 2025. The design includes 22 large workstations for students. The workstations accommodate multiple types of classroom activities; from standard work on a PC, to working in PC bench repair, to building computer networks. This will be a modern space that markets itself.

As with last year, budget support remains strong for the program. The support is realized in three ways; internal support from Husson, a third Alfond grant of $1.5M, and the Congressional TSTEM funds of $548K. We still maintain a small yearly operational budget for the program. With the upcoming work from the Congressional funds, and with the Alfond grant support, our goal is to create a stable program with low capital expenditure needs for the next 3-5 years.

Looking forward into the next academic year, in addition to facilities improvements, we will focus on maturing the assessment of the CIS program and elevating individual courses. The team is actively involved with the Office of Assessment and the Davis Grant work. We are optimistic that the growing trend of international students will continue, but it is under attack. Enhancing our marketing through outreach and our online presence will continue to play a key role in our overall growth. Lastly, consideration needs to be given for how to backfill for the two lost faculty positions. The current staffing model is a limiting factor to growth of the curriculum and the school at large.

Data visualizations follow this summary to help tell the story of positive growth in program interest and enrollment.

Thanks,

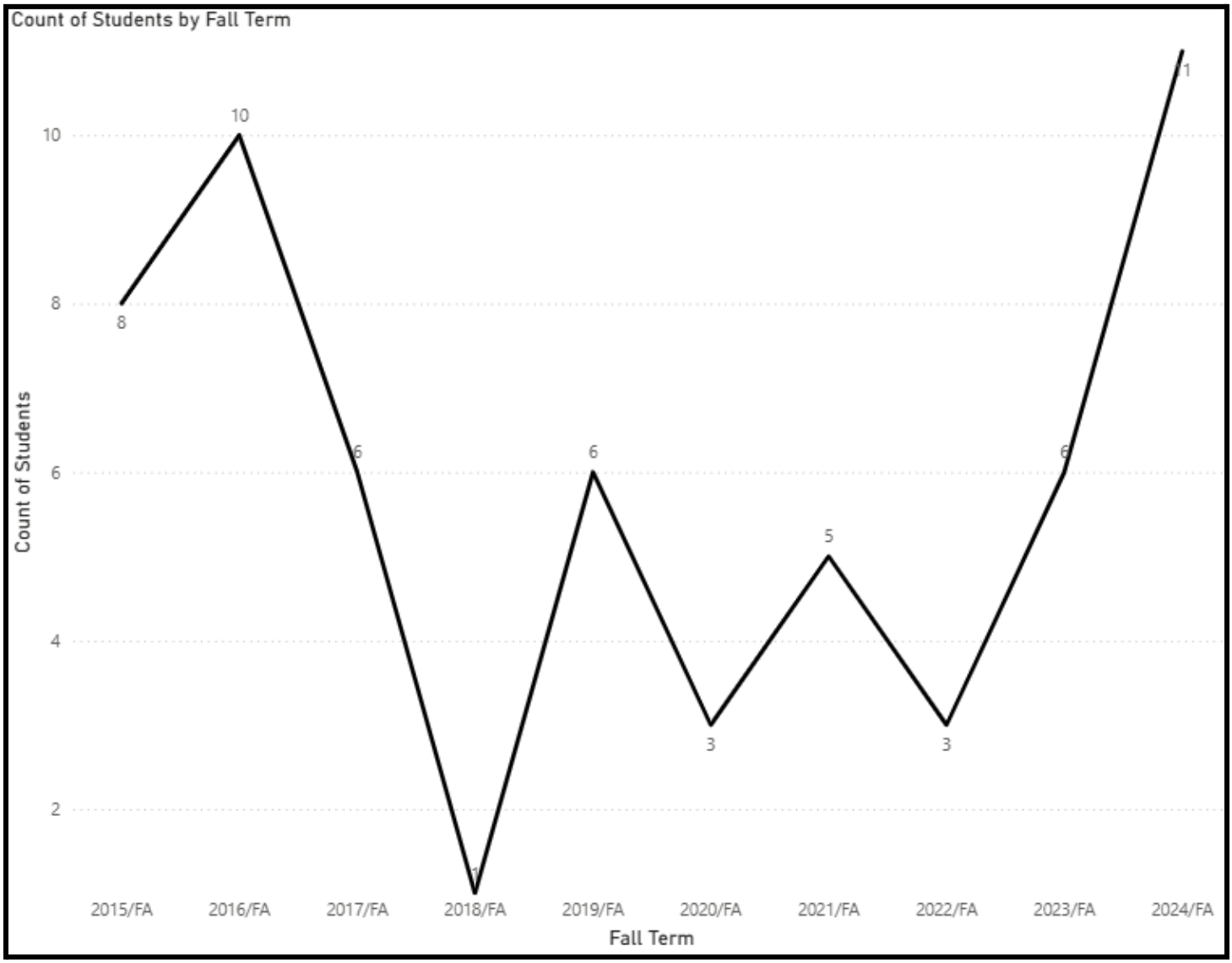
Michael Knupp, PhD
Assistant Professor & Director of the School of Technology and Innovation

Approved: Deans Council MM-DD-YYYY

Overall Program Health Data

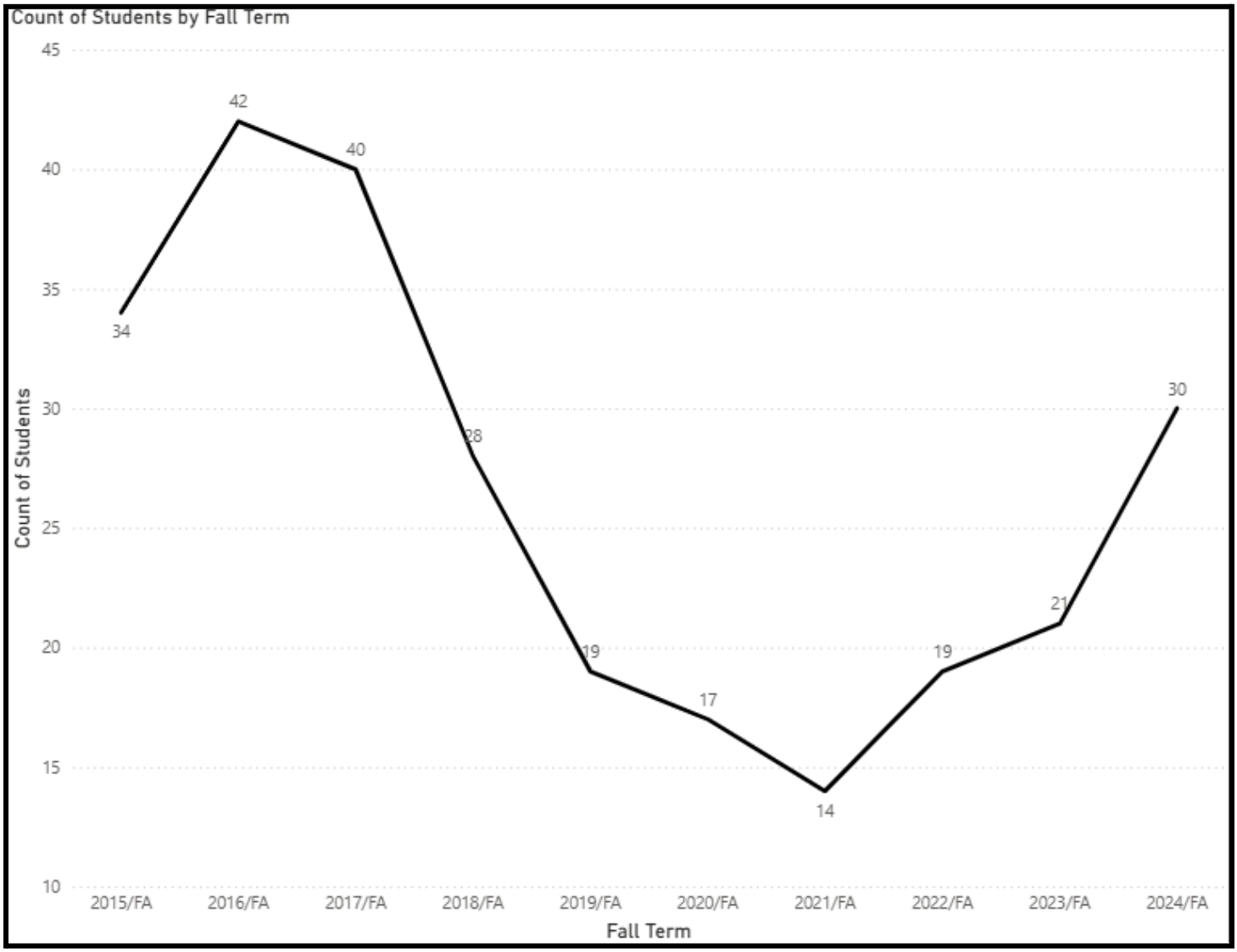
Enrollment trends - monitoring enrollment is a vital part of assessing the overall health of a program. SoTI is in a building phase and the Computer Information Systems program is showing steady growth with a nearly double of entering students from 2023/FA to 2024/FA. The graphs below provide visual support of the upward enrollment trends.

Enrollment trends for Entry First Year and Transfer CIS students



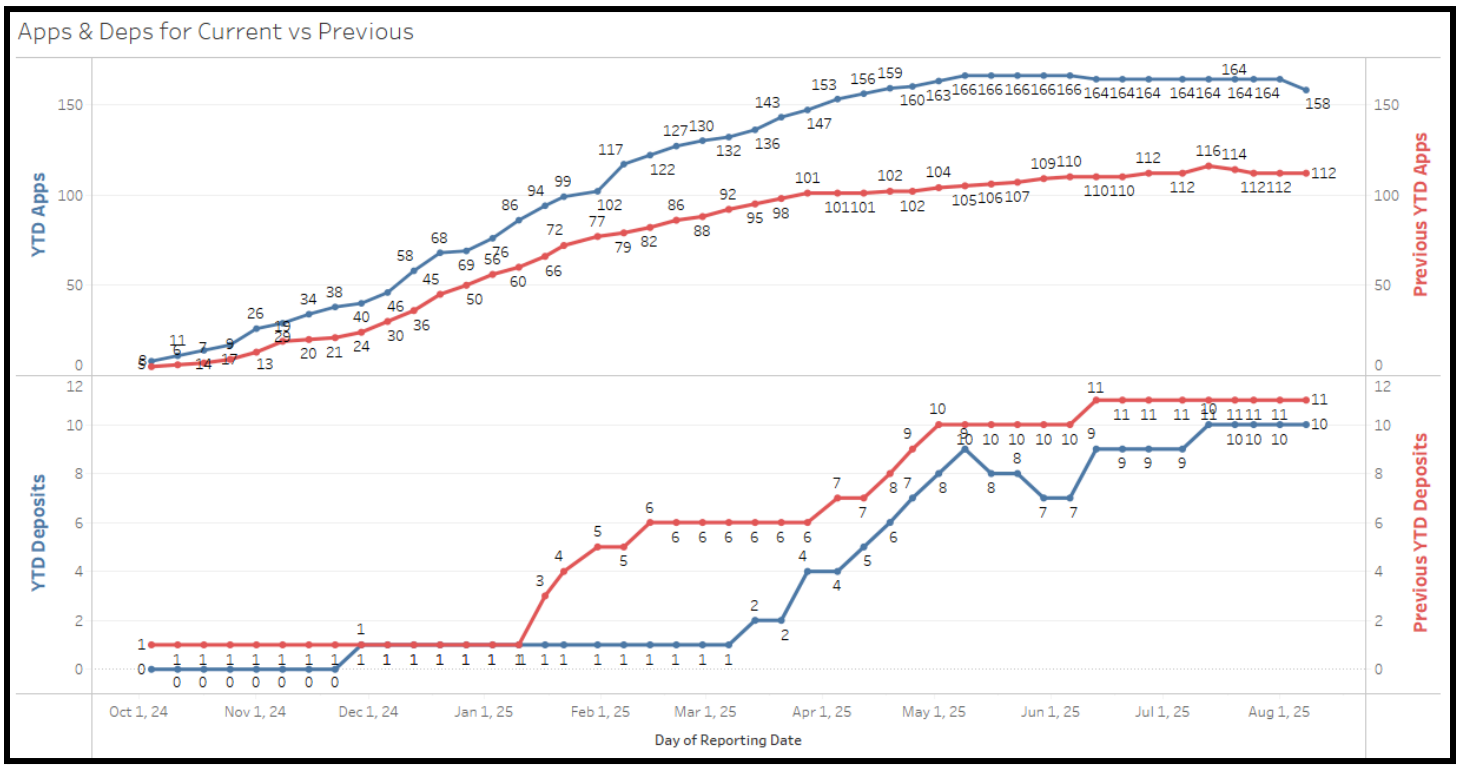
Approved: Deans Council MM-DD-YYYY

Enrollment trends for All CIS students



Approved: Deans Council MM-DD-YYYY

The following chart shows the tremendous growth in the CIS applications from the previous year. The blue trend lines reflect the upcoming 2025-2026 academic year and the red trend lines reflect the previous year of 2024-2025. It is worth noting that the tuition deposits have not shown the dramatic increase that applications show. We believe this is impacted mostly by high numbers of international applications.



Approved: Deans Council MM-DD-YYYY

Appendix I

Ten targeted IT questions included on Peregrine Exit Survey:

1. I am able to integrate the core areas of business to inform my decision making.
2. I am able to apply legal and ethical principles in business to organizational decision making.
3. I am able to apply business-related quantitative and qualitative methods and tools to formulate management decision alternatives.
4. I am able to demonstrate leadership skills.
5. I am able to demonstrate professional business communication.
6. I have the ability to work with diverse colleagues in team situations.
7. I am able to demonstrate knowledge of computer hardware and software infrastructure.
8. I am able to construct appropriate database solutions using computer software.
9. I am able to apply project management practices and principles.
10. I am able to utilize computer technology solutions to address business policies and practices.

Appendix II

Programmatic outcomes were formalized in 2018 – 2019 academic year and amended slightly in 2020 – 2021 to draw focus and attention to the five key nouns that each programmatic outcome aligns to. In 2023, in an effort to ensure applicability across all three SoTI programs, “and apply” was added to Program Outcome 1.

Program Outcome #1: **[Problem Solvers]** Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify and apply solutions.

Program Outcome #2: **[Creators]** Design, Implement and Evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.

Program Outcome #3: **[Communicators]** Communicate effectively in a variety of professional contexts.

Program Outcome #4: **[Professionals]** Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

Program Outcome #5: **[Collaborators]** Function effectively as a member or leader of a team that is engaged in activities appropriate to the program’s discipline.

Approved: Deans Council MM-DD-YYYY