ANNUAL PROGRAM ASSESSMENT FORM

Name of Program: Extended Reality

Report prepared by: Michael Knupp

1) Please list the degree offerings:

a. BS Extended Reality

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

BS Extended Reality Retention Rate				
Fall Term	**HU or Program**	**1st-2nd Year**	**1st-3rd Year**	**1st-4th Year**
2021	HU	100%	100%	100%
	Program	100%	100%	100%
2022	HU	60%	40%	---
	Program	60%	20%	---
2023	HU	100%	---	---
	Program	80%	---	---

Retention Trends for Previous 6 Years…

1st - 2nd Year Within Husson / Within Program 87 % / 80 %
1st - 3rd Year Within Husson / Within Program 70 % / 60 %
1st - 4th Year Within Husson / Within Program 100 % / 100 %

Per the Institutional Research Department, graduation rates are for students that originally started in the program.

BS Extended Reality Graduation Rate			
Fall Term	**4-Year**	**5-Year**	**6-Year**
2021	100%	---	---

Graduation Rates - The Extended Reality program is new with the 1st cohort of students starting 2021. The first student graduated in May 2025.

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. Mr. Brave Williams also visited five different schools in New England during his spring break in order to recruit for the XR program. 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.	Brave Williams and Tharun Thiyagarajan served as judges at two XR related competitions at SkillsUSA 2025.
	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.

Strategic Goal	Operational Goal	Assessment Plan	Notes
	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.
Mature facilities and curriculum to ensure relevancy, foster student engagement, and promote high academic rigor.	Redesign IT 366 - Programming Principles for AR	Evaluate status of course build and delivery at the end of the current academic year.	As part of the Davis Grant work, Tharun successfully redesigned IT 366. The course will be offered in SP 2026.
	Redesign and deliver XR 377 - Extended Reality III.	Evaluate status of course build and delivery at the end of the current academic year.	Brave is planning to implement a new technology that supports projection and cave type experiences. The implementation is planned for FA 2025.
	Redesign and deliver appropriate practicum courses.	Evaluate status of course build and delivery at the end of the current academic year.	The depth of the XR practicums was redesigned to more appropriately guide student efforts and to right size the work expectations for a 1 credit course.
	Review and mature the BS - XR degree to better align with other SOTI degrees and to reposition the practicums.	Review CourseLeaf to ensure all required changes have been processed with a projected release of a new curriculum for the fall of 2026.	The high level design changes have been proposed within SOTI and the details will be worked out in the Fall of 2025.
	Design a Certificate in Game Design & Development.	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.

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 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	XR 100 XR 101 XR 177 XR 200 XR 201 XR 277 XR 292 XR 377 XR 392 XR 477	All courses were offered during the 2024-2025 academic year. The XR practicum classes (XR 100, 101, 200, 201, 300, 301) continue to evolve with efforts to right size the student engagement and contributions to iEX Center projects. Tharun continues to mature and advance the Game Engine classes; XR 292, XR 392. XR 477 was offered for the first time during this academic year.	No action 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	XR 177 XR 277 XR 292 XR 300 XR 301 XR 377 XR 392 XR 477	All courses were offered during the 2024-2025 academic year.	No action needed at this time.
3. Communicate effectively in a variety of professional contexts	XR 177 XR 200 XR 201 XR 277 XR 351 XR 377 XR 477	All courses were offered during the 2024-2025 academic year.	No action needed at this time.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles	XR 300 XR 301 XR 477	All courses were offered during the 2024-2025 academic year.	Consideration needs to be given in terms of how the practicums and senior capstone course can more acutely incorporate themes of professional judgement.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline	XR 100 XR 101 XR 300 XR 301 XR 351 XR 477	All courses were offered during the 2024-2025 academic year.	Consideration needs to be given to including the XR students in the IT 482 - IT Project Development (senior capstone course).

Approved: Deans Council MM-DD-YYYY

Unlike students in the CIS and SD programs, students in the XR program do not currently take the Peregrine exit exam. This will be evaluated to determine where appropriate to include XR students in this experience.

6) **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

The Extended Reality (XR) program is coming into the 5th official year of existence. In May 2025, the program saw its first official graduate. That student is employed in industry. The program is showing slow growth, with room to expand and stabilize year to year enrollment. The XR program offers 1 degree; BS. The last curriculum changes were introduced in the Fall 2024. An additional curriculum review is planned for the 2024-2025 academic year with a planned implementation of Fall 2026. The revisions will focus on better alignment of practicums and better integration with other courses in the SOTI program. A review of the current degree and program name of "Extended Reality" was completed with the final conclusion that the current name aligns with industry terms and also best aligns with the goals of the program.

The program continues to build strength and stability through the continued efforts of the entire team; namely Brave Williams, Tharun Thiyagarajan and Tony Gerow. Brave continues to provide overall leadership to the program and has taken more ownership of XR recruiting initiatives. Tharun continues to advance the XR technical courses. He has also become more involved in other software development courses as we provide coverage to courses that were vacated based on staffing changes this year. Tony continues to be a highly valuable team member as XR Technical Director. While his role will be changing slightly in the coming months, he will still highly support SOTI.

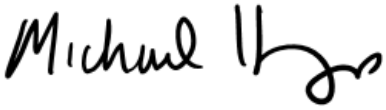
Funding provided through an Alfond grant has helped to secure additional equipment needed to advance the XR curriculum and student experiences. Additional advancements in technology have been realized through the $540K in Congressional STEM funding. The lab space in HAH 207 was upgraded with higher end workstations. In addition, a new high end server to support virtualized Windows environments will be built for deployment in the Fall 2025 semester. The upgrades position the lab to support all courses across the software development and extended reality programs.

Enrollment showed an increase from the previous year. We had 9 new students enroll in the program. And while we were ideally looking to have more students enrolling in the program for the fall, 9 falls into the basic target of 8-10. A more ideal enrollment number is 15. Retention is very high in that once students start the program, they tend to stay.

Budget support remains strong for the program. We will need to continue to maintain a yearly capital budget for the program. Additional monies from previous Alfond grants help to support staffing. The Congressional STEM funding will also play a major role in the capital budget for the XR program and the iEX Center.

Looking forward into the next academic year, we will focus on stabilizing and working with a revised curriculum. The XR practicums are a vital part of the degree. We will also be watching our second set of graduates and monitoring their progress as they leave Husson. Future efforts with regards to recruitment will continue to ensure the program has a viable student base. Enhancing our marketing through outreach and our online presence will play a key role.

All in all, the program is strong and is on track to continue to gain strength and advance. There are some data visualizations that follow this summary that help to tell the story of positive growth in program interest and enrollment. Thanks,



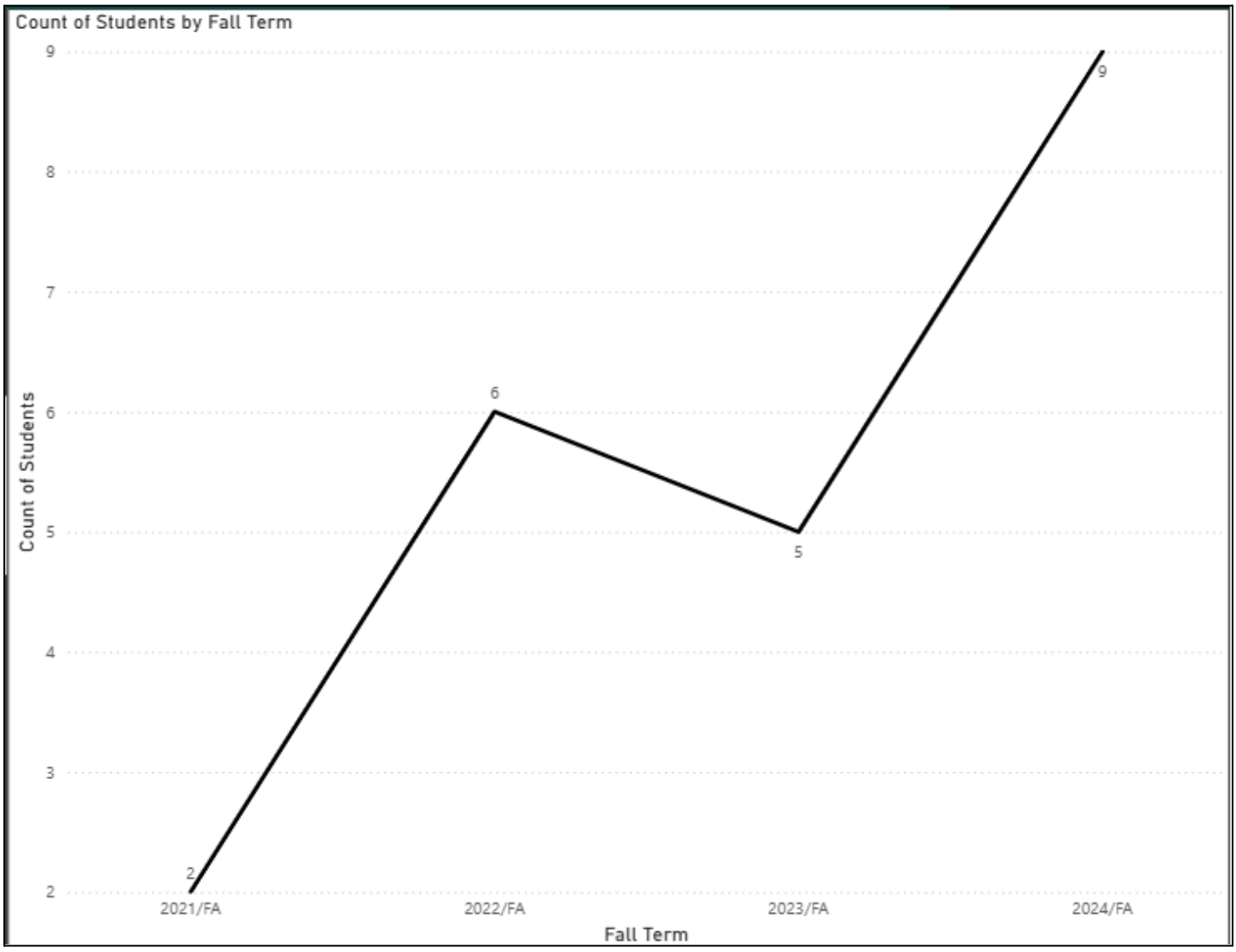
Michael Knupp, PhD
Assistant Professor & Director of the School of Technology and Innovation

Approved: Deans Council MM-DD-YYYY

Overall Program Health Data

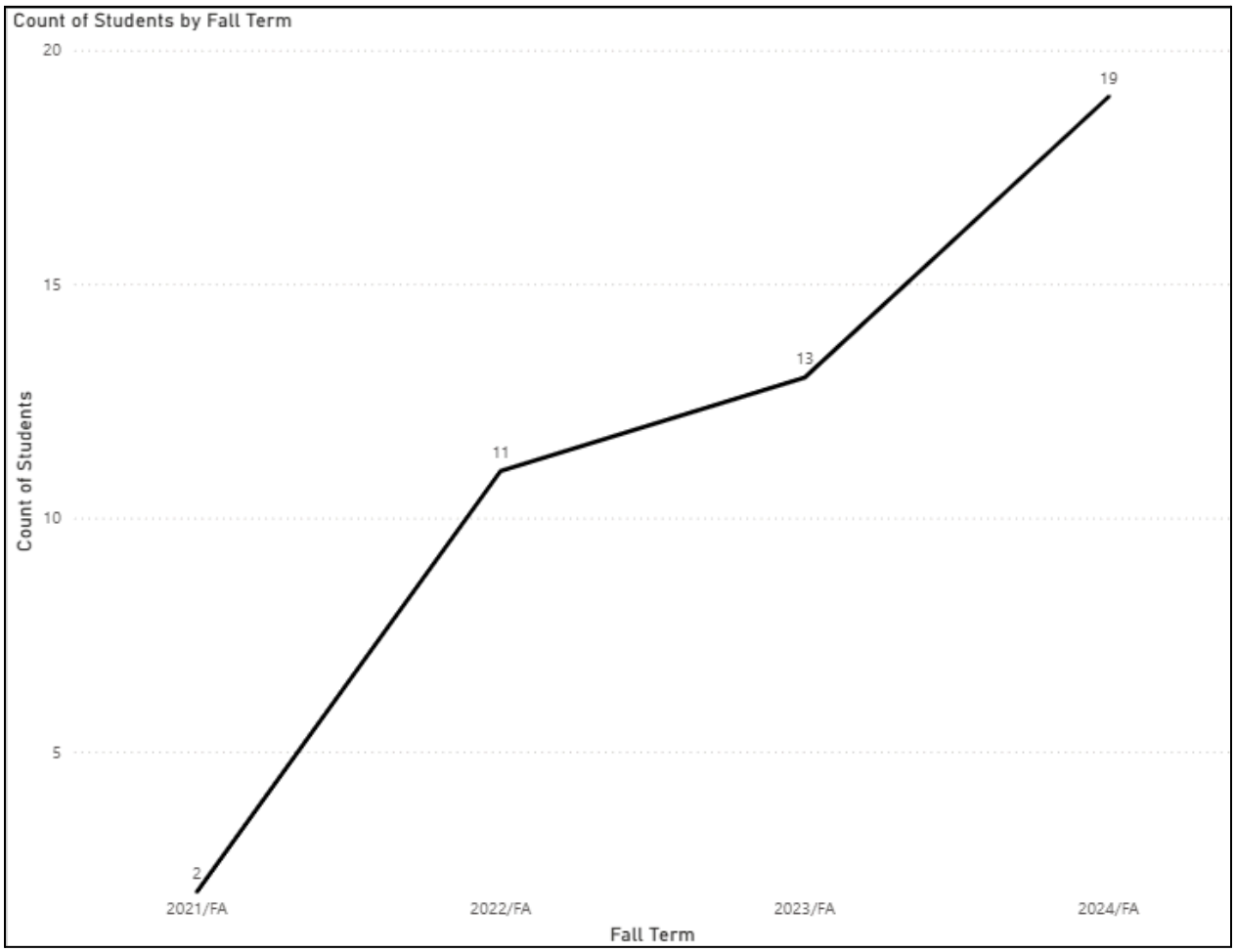
Enrollment trends - monitoring enrollment is a vital part of assessing the overall health of a program. SoTI is in a building phase and the Extended Reality program is showing slow, but steady growth. The graphs below provide visual support of the upward enrollment trends.

Enrollment trends for Entry First Year and Transfer XR students



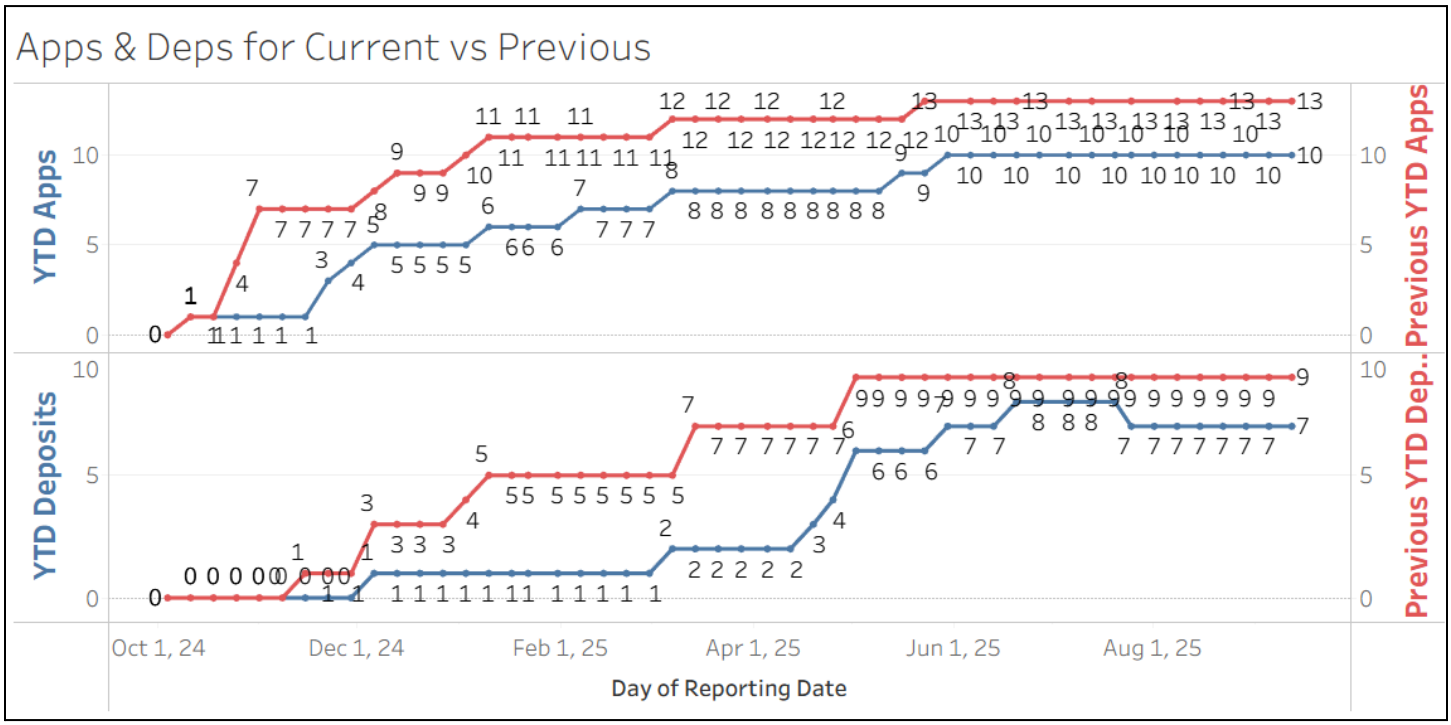
Approved: Deans Council MM-DD-YYYY

Enrollment trends for All XR students



Approved: Deans Council MM-DD-YYYY

The following chart shows consistent application counts and tuition deposits for the current academic year as compared to the previous. The blue trend lines reflect the upcoming 2025-2026 academic year and the red trend lines reflect the previous year of 2024-2025. Ongoing efforts should be made to increase the overall application count in an effort to build overall enrollment.



Approved: Deans Council MM-DD-YYYY

Appendix I

Ten targeted IT questions included on Peregrine Exit Survey: (NOTE - not applicable to XR students.)

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.

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