Eighth Annual Provost’s Teaching & Learning Symposium Posters

Assessing Student Learning and Teaching in a "Wired" World

Friday, September 27, 2024

University Center Ballroom

# Poster Presentations 10:00-11:30 a.m.

Abstracts for each numbered poster appear below. To help locate posters of interest, below each abstract, you will find the color-coded strands that each poster falls into from the following:

* Academic Success
* Assessment/Evaluation/Scholarship of Teaching and Learning (Assessment/SoTL)
* Course/Curriculum Development
* Diversity, Equity, and Inclusion (DEI)
* Hrabowski Innovation Fund Grant Recipients (HIF)
* Instructional Technology/Teaching with Technology (Technology)

1. Empowering Lifelong Learning: Integrating Microcredentials in Community Leadership Skills Courses at UMBC*,* Joby Taylor (Shriver Center), Sally Scott (Community Leadership Graduate Programs), and Collin Sullivan (Extended Studies, Division of Professional Studies)

The Community Leadership Skills Courses at UMBC equip students with practical skills and knowledge essential for generating transformative social change. This poster highlights the innovative integration of microcredentials within the Skills Courses. Each 5-week course, taught by subject matter experts, emphasizes experiential learning and offers participants a microcredential upon completion. These credentials represent the acquisition of skills essential to working with communities, aligning with defined learning outcomes. Our assessment methods include authentic assignments and real-world projects that directly measure student competencies. The microcredentials not only acknowledge student achievements but also create pathways for further academic and professional opportunities. UMBC students and staff, as well as community learners (not enrolled at UMBC) learn and earn credentials together. Community learners can transition from noncredit to for-credit programs, fostering lifelong learning. The poster will demonstrate the creation and implementation of microcredentials, showcasing how they enhance student learning and open doors to future success.

Strands: Academic Success, Course/Curriculum Development

1. Improvement of Quantitative Reasoning Skills in Transfer and Direct Entry Students Exposed to Cell Biology Modules*,* Hannah Pie (Biology, Howard Community College), Sarah Leupen (Biological Sciences), Kathleen Hoffman (Mathematics and Statistics), Tory Williams (Research Protections and Compliance), Michelle Starz-Gaiano (Biological Sciences), William LaCourse (Natural and Mathematical Sciences), Jeff Leips (Biological Sciences), and Patti Turner (Retired from Howard Community College)

Calls for transforming biological curricula have spurred a flurry of activity in interdisciplinary STEM education, particularly quantitative skills. We designed six modules to develop quantitative reasoning competencies for a sophomore-level Cell Biology course. The modules were implemented at UMBC and also at a community college sending institution. Data in the form of validated pre-post measurements of specific quantitative competencies were analyzed to determine the effects of the module on student quantitative reasoning proficiencies. Both transfer and direct entry students showed significant total growth in quantitative goals for all modules and had significant positive correlations between final course grades and their overall post-assessment performance as well as their overall gain across the module. Attitude assessments showed that students had an overall positive experience with the modules. Our data suggest that adding quantitative modules to core biology courses can promote student understanding of quantitative concepts and promote transfer student success.

Strands: Academic Success, Assessment/SoTL, Course/Curriculum Development

1. Assessing the Impacts of An Interventional Proof-Writing Course*,* Kathleen Hoffman (Mathematics and Statistics), Tory Williams (Research Protections and Compliance), Justin T. Webster (Mathematics and Statistics), Jennifer M. Harrison (Faculty Development Center), and Kalman Nanes (Mathematics and Statistics)

Teaching and learning proof-writing for upper-level courses in the mathematical sciences is challenging for both the instructor and the students. We developed an interventional course to introduce students to logic and proof-writing, prior to the standard disciplinary courses of real analysis or abstract algebra. We measured the impact of this course on student learning and success through several different measures: direct measures of student learning; a pre-post assessment instrument; course grades in the prerequisite, interventional, and subsequent courses; qualitative data from students after completing the subsequent real analysis course; and demographic information from institutional databases. Students show significant gains in the pre-post assessment instrument, relative to student learning outcomes in the interventional course. Analysis of course demographic data and course grades shows that students who took the interventional course were positively impacted by the intervention and expressed their appreciation for the course.

Strands: Academic Success, Assessment/SoTL, Course/Curriculum Development, HIF

1. Retrieving the Social Sciences: Expanding Students’ Engagement with Science Communication and Public Outreach*,* Christine Mallinson (Language, Literacy & Culture and Center for Social Science Scholarship), Felipe Filomeno (Political Science and Center for Social Science Scholarship), and Ian G. Anson (Political Science and Center for Social Science Scholarship)

This project aimed to promote and assess student participation as both creators and listeners of content in the podcast “Retrieving the Social Sciences," recently launched by the Center for Social Science Scholarship. The podcast highlights social science research and teaching at UMBC, with the goal of making research more visible to the public and interdisciplinary audiences through increased science communication. The team utilized the podcast to feature course-based research, showcase exceptional student research via invited interviews, and work with faculty to assign relevant podcast episodes as part of coursework. The poster will describe the project and present findings from questionnaires with students about learning outcomes based on engaging with the podcast.

Strands: Course/Curriculum Development, HIF, Technology

1. Pilot Course: Experimental Archaeology of the Global Antique and Premodern Eras*,* Molly Jones-Lewis (Ancient Studies) and Lindsay Johnson (Music) **[DEMO]**

With Hrabowski Innovation seed funding, we piloted an Experimental Archaeology course that prioritized physical, kinesthetic, and exploratory lessons garnered from constructing and creating “historical” artifacts. Our primary guiding question was “What can we learn by doing that we can’t learn from thinking about?” Students gained new understanding of historical cultures and skill-based practices through spinning and fiber arts, musical performance, dance, foraging, cooking, fire building, gardening, and the creation of paints, medicines, and dyes. Success of the course was assessed via repeated quantitative and qualitative student evaluations and the individual final projects students presented during our public-facing community day. The course was undeniably successful on all assessed metrics. Next summer, the lessons learned about physical resources will improve organization. Additionally, longer class times and earlier efforts to schedule outside speakers & events would be beneficial. We intend to demonstrate several course activities, such as spinning and quill pen-making, for guests to try.

Strands: Course/Curriculum Development, HIF

1. Gamification in the Classroom: Building Empathy for Immigrant Students*,* Kerri Evans (Social Work) **[DEMO]**

At the table I will display the board game "Emerge" so that participants can look at the physical set up. The game is used as part of a2.5 hour cultural sensitivity training around working with immigrant students. I will talk people through the learning objectives and basic game play as part of the demo, including notes about student conversation and learning as applicable. The poster will include learning objectives, preliminary data analysis from those who have participated to date, and methodological info on the pre/post test, participant demographics, and analysis. We will share lessons learned around creation, implementation, and proper venues for the training. Student workers that facilitate the game will share their perspectives.

Strands: Course/Curriculum Development, DEI, HIF

1. Leveraging Innovative UIA Lab Resources to Enhance Student Achievement at UMBC*,* Ronita Walker (Undergraduate Academic Affairs) **[DEMO]**

This presentation will explore the array of learning innovations and resources available within the UIA Lab through UMBC's membership in the University Innovation Alliance (UIA). The UIA is the leading national coalition of public research universities dedicated to increasing the number and diversity of college graduates, with a particular focus on supporting low-income students, first-generation students, and students of color across the United States. By joining the UIA in 2021, UMBC has committed to engaging with member institutions to share and implement innovative student success practices that can significantly impact our student retention. This session will delve into the specific resources available for Faculty and Staff in the UIA Lab that UMBC has adopted through its UIA membership. The presentation will highlight how these innovations can enhance student support, foster academic success, and contribute to a more inclusive educational environment.

Strands: Academic Success, DEI

1. Supporting Student Learning with Digital Accessibility*,* Mariann Hawken and Josh Abrams (Instructional Technology)

UMBC recognizes the critical role of digital accessibility in promoting equitable student learning. Revised federal guidelines for digital accessibility place a firm deadline for universities to proactively prepare and remediate all content, public and password-protected, for accessibility rather than continue a reactive approach as it has done previously. This poster will raise awareness about the importance of accessible course content and highlight assessment methods to ensure compliance and effectiveness. Utilizing tools like Ally’s course report, we can evaluate the accessibility of our materials and identify areas for improvement. Additionally, we will share preliminary insights from our ongoing assessment of course materials using analytics. By demonstrating the impact of accessible content on student engagement and success, this poster aims to foster a campus-wide commitment to inclusive education and improved accessibility of course materials.

Strands: Academic Success, Course/Curriculum Development, DEI, Technology

1. Enhancing Accessibility with Anthology Ally*,* Josh Abrams (Instructional Technology) **[DEMO]**

Anthology Ally, a digital tool available within Blackboard, is designed to improve accessibility for all learners by providing alternative formats of course content and detailed accessibility reports for instructors. Anthology Ally provides alternative content formats, like audio, Beeline reader, and Immersive Reader, catering to diverse student needs and supporting digital accessibility. Students benefit from the variety of formats and instructors can enhance content inclusivity by engaging with the Ally course accessibility report. Ally can identify broken course links, generate alt-text for images to support accessibility, and identify other key issues impacting the accessibility of course content. This tool demonstration will showcase Anthology Ally's features, including accessing and interpreting course accessibility reports and scores, updating course materials, and accessing alternative formats. The accompanying poster will detail Ally’s purpose, benefits, and UMBC’s usage data, illustrating how Ally can support student learning by making educational materials more accessible and inclusive.

Strands: Academic Success, Course/Curriculum Development, DEI, Technology

1. A Decade of BPC: Analyzing Enrollment, Retention, and Graduation Trends for URG and Women Completing Multidisciplinary Computing Coursework*,* Mark Berczynski (Engineering and Computing Education Program) and Carolyn Seaman (Information Systems and Center for Women in Technology)

COMP 101 is a multidisciplinary first year course in computing offered each semester for those students with little to no previous programming experience. Though it was initially intended to support only a small number of COEIT students in the fall, the course has grown: from 2015 through 2023, 21.5% of all incoming first year students in computing enrolled in COMP 101 in their first semester. In fall 2022, 29.5% of all first year students pursuing a computing degree started in the course. Overall, COMP 101 students persist within their chosen plan at a higher rate within their next three semesters than those who do not enroll. Graduation rates for those who have taken COMP 101 differ per initial program, and differ by initial math recommendations as well. There are students who are much more likely to succeed if they take this course.

Strands: Academic Success, Assessment/SoTL, Course/Curriculum Development, DEI

1. Video Games, Digital Storytelling, & Self-Efficacy*,* Mark Berczynski (Engineering and Computing Education Program), Sarah Jewett (Provost’s Office), and Jamie Gillan (English at Montgomery College) **[DEMO]**

Funded by a Hrabowski Grant, experienced digital storytelling interns from Montgomery College were brought onto the COMP 101 teaching team to support the team based video game projects that cap the semester. Their expertise and guidance in reflective activities improved these projects and refocused them on the student experience, empowering students who often keep their identity out of this type of coursework. We intend to share anonymized student end-of-semester reflections, as well as lessons learned from the research team and undergrad teaching fellows who assist in the class. We can set up several of the video game projects for attendees to play.

Strands: Assessment/SoTL, Course/Curriculum Development, HIF, Technology

1. Increasing Teaching Efficacy in Engineering Graduate Students through the Development and Facilitation of Summer MHS STEM Experience, Jamie Gurganus (Engineering and Computing Education Program), Neha Raikar (Chemical, Biochemical, and Environmental Engineering), Yarazeth Medina (Graduate School), and Michael M. Malschützky (Centre for Teaching Development and Innovation at Hochschule Bonn-Rhein-Sieg, Germany)

To enhance the graduate student experience in engineering and prepare them for faculty roles, UMBC established the SEA-CIRTL fellowship in collaboration with three programs: the Graduate School, Summer Enrichment Experience, and COEIT. This program focuses on scholarly research, teaching, and career preparation. Engineering graduate students create evidence-based lesson plans for Middle School/High School (MHS) STEM courses and act as primary instructors. Over seven months, Fellows crafted lesson plans and attended workshops on course design, instructional strategies, student engagement, and classroom management, facilitated by faculty experts. They had regular check-ins with program coordinators and earned a nationally recognized certificate upon completion. Fellows expressed high satisfaction with various program aspects, including the call for participation, selection process, program kickoff, abstract development, professional development sessions, course delivery, and overall project management. The research includes ongoing data collection on Fellows' teaching self-efficacy using a validated tool.

Strands: Assessment/SoTL, Course/Curriculum Development

1. Resource Sharing and Engagement: A Cross-Campus Approach to Enhancing Student and Researcher Access to Biomedical Data*,* Brianna Hughes (Albin O. Kuhn Library), Jasmine Shumaker (Albin O. Kuhn Library), Eric Stokan (Political Science), and Semhar Yohannes (Albin O. Kuhn Library)

The NIH All of Us (AoU) Academic Libraries Program partnered with UMBC’s AOK Library to raise awareness of the AoU Research project, a longitudinal study aimed at advancing medicine and public health by increasing the participation of traditionally underrepresented groups in health research. Through presentations, workshops, and a symposium, we promoted and developed resources to familiarize the campus with the AoU program. Our project enhanced student learning and success by introducing them to this new biomedical research platform. Students gained proficiency in R, enabling them to maximize research within the AoU program. Symposium attendees learned about research conducted by USM faculty and students through the AoU program. We measured success through qualitative and quantitative data collection, gathering feedback, tracking attendance, monitoring funding, and program usage. Lessons learned included adopting a multi-prong approach engaging users, and targeting departments and researchers’ needs. Targeted invitations and enhanced communication rounded out outreach and engagement.

Strands: Academic Success, Assessment/SoTL, DEI, Technology

1. Living Reminiscences of Al Andalus: A Cross-Cultural Communication Experience through a Faculty Led Study Abroad (FLSA) Program in Morocco and Spain - Summer 2024*,* Elisabeth Arévalo-Guerrero and Samir El Omari (Modern Languages, Linguistics, and Intercultural Communication)

In this poster we present a summary of our faculty led study abroad experience (FLSA) in Morocco and Spain this summer 2024. A preliminary data analysis of students’ intercultural learning along the courses and in countries experiences will be shared. An inclusive cross-cultural competency assessment was used to evaluate students’ cultural development. The purpose of this study abroad program was to broaden students’ understanding of how cultural values shape and influence everyday communication and behaviors in the Maghrebin and Iberian realm, enhance their appreciation of the diverse and complex ways of communicating and behave among these areas, while experiencing cross-cultural adaptation processes. The ultimate goal was to develop students’ intercultural competence and improve students’ analytical skills in analyzing cross-cultural challenges. We hope this poster serves to inspire other faculty and students at UMBC to embark in FLSA as the best opportunity to raise global learners and citizens.

Strands: Course/Curriculum Development, DEI

1. Face It and Embrace It! Teaching in the Era of AI (Artificial Intelligence): A Faculty Learning Community Experience in 2023-2024, Elisabeth Arévalo-Guerrero (Modern Languages, Linguistics, and Intercultural Communication), Karen Chen (Information Systems), Nandita Dasgupta (Economics), Abhijit Dutt (Computer Science and Electrical Engineering), Shin Yon Kim (Asian Studies), Jeffrey Robinson (Translational Life Science Technology), Aharona Rosenthal (Judaic Studies), Bill Ryan (Information Systems), and Craig Saper (Language, Literacy, and Culture)

In this poster we present a summary of our year long Faculty Learning Community’s discussions and shared experiences on "Teaching in the Era of AI". Our FLC is comprised of nine faculty members from a diverse of disciplines including humanity, social science, and STEM. Over the course of the FLC, we shared our concerns, fears, and curiosity, which led to self-reflection, discovery and fearless experiments. We will highlight: 1) aspects of students’ learning that can be enhanced when embracing AI in our teaching practices 2) samples of courses implementing AI across disciplines and resources compiled along our FLC and 3) the final outcomes of our FLC by sharing faculty experience reflections on how to foster critical, meaningful, and responsible use of AI to provide effective teaching and learning experiences across disciplines in preparation for 21st century skills that are inevitably necessary for professional settings.

Strands: Technology

1. Go Ahead - Use AI! Rubrics for Grading Assignments that Explicitly Allow Students to Use GenAI*,* M. Nicole Belfiore (Social Work) and M. Ali Yousuf (Computer Science and Electrical Engineering)

Generative AI has emerged as an unavoidable technology that interacts with higher education; we, as instructors, need to figure out how to work with it. AI can be used productively to assist with the creative process or it can be used to replace or derail creativity. This project, funded with a Hrabowski Seed Grant, proposes preliminary ideas for implementing AI in teaching and learning in the social science and computer science fields. How can we, as instructors, guide students to use AI to augment, rather than replace, their learning? How can we guide students to use AI ethically? Furthermore, grading of assignments completed with the help of AI tools poses a major challenge to instructors that traditional rubrics are incapable of handling. We propose rubrics that guide the use of AI in teaching, learning, and grading student work that is at least partially generated with the help of AI.

Strands: Assessment/SoTL, HIF, Technology

1. AI Tools to Make Class Activities More Inclusive and Accessible for Students with Learning Challenges*,* M. Ali Yousuf (Computer Science and Electrical Engineering), M. Nicole Belfiore (Social Work), and Akbar Ali (Medicine, Marshall University)

We present a variety of innovative AI tools that show significant potential in enhancing the experience of students with learning challenges. These tools, some of which are already available, and others actively in development, leverage the power of AI to address a wide range of challenges. These include: (1) The creation of art for the visually impaired, (2) Support for students with Dyslexia/Dysgraphia, and (3) Translational benefits for the hearing impaired and those with language barriers.

Strands: DEI, Technology

1. Generative AI in the Classroom: Introducing Students and Faculty to ChatGPT*,* John Schumacher (Sociology, Anthropology, and Public Health)

1) This education project deployed two 3 page guides on generative artificial intelligence (gen AI), one for students and one for faculty in undergraduate/graduate classes. A lecture and demonstration of ChatGPT followed. Class syllabi also included a ChatGPT statement about using gen AI or not in class. Faculty guides were distributed at a faculty meeting. Project examined students’/faculty responses & tool adoption. 2) Reviewing responses to open-ended questions specifically looked for mentions of the gen AI exposure/sentiment. Faculty sentiments were gathered via a focus group discussion. 3) A majority of students responded positively to the syllabus statement regarding gen AI. Overall, students remain confused about acceptability of gen AI usage and fearful/anxious about being accused of plagiarism. Faculty report low levels of motivation for engaging with generative AI themselves and fearful about the impact of generative AI on their teaching and assessment approaches.

Strands: Technology

1. Course Planning with Machine Learning*,* Ergun Simsek (Computer Science and Electrical Engineering)

The project aimed to enhance course scheduling efficiency for the largest master's program at UMBC, the MPS Data Science (DATA) program, addressing critical aspects of student learning and success. We developed statistical and machine learning models to accurately predict the necessary number of course sections each semester, ensuring optimal seat availability and timely graduation for students. Our assessment methods included analyzing historical enrollment data and utilizing machine learning algorithms to forecast demand. This approach resulted in a 96.2% classroom fill rate for Spring 2024, validating the accuracy of our scheduling tool. Lessons learned include the importance of continuous data monitoring to adjust predictions and the benefit of integrating automated systems for scalability. The outcomes demonstrate the feasibility and effectiveness of data-driven course planning, providing a scalable framework for other programs. Future efforts will focus on automating the tool for broader application, conducting pilot studies in other professional programs, and disseminating results through academic publications and presentations.

Strands: Course/Curriculum Development, HIF, Technology

1. Interdisciplinary Educational Training to Improve Students' Audio Deepfake Discernment*,* Nehal Naqvi (Political Science), Noshaba Nasir Bhalli (Information Systems), Chloe Evered (Linguistics, Georgetown University), Christine Mallinson (Language, Literacy, and Culture), and Vandana Janeja (Information Systems)

Deepfakes—content synthetically generated or manipulated using AI methods--are a significant global threat. Individuals need to be able to spot manipulated information, but deepfake discernment trainings generally have limited success. We analyze results of training that familiarized listeners with features of spoken English as indicators of real or fake speech. In Fall 2023, 264 UMBC students participated in our study. In a pre-post test design over eight weeks, students listened to 20 short real and fake English clips and labeled each as real, fake, or unsure. At the midpoint, six classes received sociolinguistic training (experimental group), while three received a short reading about audio deepfakes (control). The experimental group showed a statistically significant decrease in unsurety when evaluating clips and an improvement in their ability to correctly identify clips they were initially unsure about. While results are promising, future research will explore developing more robust trainings for greater impact.

Strands: Assessment/SoTL, Technology

1. Increasing Visual Literacy with Collaborative Foraging, Annotation, Curation, and Critique, Rebecca Williams (Computer Science and Electrical Engineering)

Students today face information overload and contamination from dubious sources like AI-generated content, influencer opinions, and context-less listicles, often supported by misleading graphs and charts. This onslaught is both cognitive and perceptual, potentially causing more insidious misperceptions than text alone. Computing students, who produce graphs and charts for assignments and projects, may inadvertently create misleading visualizations due to limited visual literacy (VL) and data analysis skills, contributing to the online spread of misinformation. Prior research suggests that repeated opportunities to critique and discuss visualizations benefit students. Inspired by these findings, we integrated a visual curation and annotation platform into a Data Visualization course. This allowed students to curate and critique misleading visualizations and evaluate their work. We assessed the intervention using Visualization Literacy Assessment Tests, qualitative reflections, and surveys. Post-course, students showed significant VL improvement, created fewer misleading visualizations, and reported increased confidence in identifying and avoiding visual disinformation.

Strands: Assessment/SoTL, Course/Curriculum Development, HIF, Technology

1. Promote Quantum Cryptography for Undergraduates and Graduates: An Active Learning Approach*,* Lei Zhang (Information Systems)

In 2022, quantum computing has attracted billions of investments from both the public and private sectors. Companies are eager to hire individuals with interdisciplinary expertise, including traditional fields (e.g., software engineering) and emerging technologies (e.g., quantum cryptography). To prepare most students with cutting-edge technologies for the job market, we are interested in bringing the knowledge of quantum computing to a broader audience. Our goal is to incorporate introductory quantum computing modules into existing curricula to stretch out the audience pool. This pilot project incorporates a one-week quantum module into existing courses at the Information Systems Department. To assess the student's learning outcomes, we employ active learning best practices to help students learn by doing. The effectiveness of active learning and the learning outcomes are assessed by in-class games, quizzes, and end-of-class surveys.

Strands: Assessment/SoTL, Course/Curriculum Development, HIF, Technology

1. Assessment of Video-Based Bonus Problems on Students' Learning of Heat Transfer*,* Liang Zhu (Mechanical Engineering)

In this study, we developed 10 bonus modules consisting of a statement of questions, a short video, and a submission platform. We then implemented the bonus modules in the heat transfer course in both the Fall 2023 and Spring 2024 semesters. Based on the preliminary analyses, students who submitted bonus problems had increased their scores of conceptual questions by 6.6 points, much larger than that in the student group without any bonus submission (5.28 points). One issue we encountered was the storage of students' submissions, which required a large disk space. Eventually, google form submissions were abandoned, instead, submissions were managed by the Blackboard platform. One thing we learned is how the flexible due dates of the bonus problems boosted the participation of the students. Data analyses are still ongoing to include more information on whether participating in bonus problem had positive impact on students' academic performance. Strands: Academic Success, Assessment/SoTL, Course/Curriculum Development, HIF

1. Bait & Switch: Using Extra Credit to Induce Students’ Intrinsic Motivation*,* Josh Abrams (Instructional Technology), Suzanne Braunschweig (Geography and Environmental Systems), John Fritz (Instructional Technology), and Nancy McAllister (Interdisciplinary Science)

Effective student study groups are key to academic success, especially in STEM disciplines. But how do students learn to find, form, and (most importantly) effectively give and take to study groups? In this presentation, we'll show why and how a flexible, semester-long, extra credit activity helps develop and leverage students’ intrinsic motivation to practice and prepare for high-stakes midterm and final exams faculty plan to give any way. Key steps include 1) Introducing students to metacognition (thinking about thinking) based on Bloom’s Taxonomy of Learning, 2) providing a simple, but effective online process for students to contribute, collect, display and “vote” on the best student-developed practice questions AND answers, and 3) scaling reflection on their exam preparation vs. performance (especially after a midterm) that can leverage intrinsic motivation to learn how to learn. This process was implemented over multiple terms in a large (300+) STEM course with compelling results.

Strands: Academic Success, Assessment/SoTL, Course/Curriculum Development, HIF

1. Peer Mentoring Program - SDS*,* Michael Canale (Student Disability Services)

Our program consisted of 5 peer mentors and six student participants. Students set and achieved weekly goals they had created for themselves. Some examples are creating email communication templates, calendar usage techniques, enhanced social interactions, and practice. Students and peers submit a report each week that consists of weekly goals and progress. Progress is tracked by completing steps to reach the goal. Once a goal has been achieved, the pair continue their work with additional goals. The significant lesson I have learned is the need and desire for students on the spectrum to participate in social events and activities and develop personal and professional relationships. While time management, organization, and executive functioning are barriers, the social barrier is far greater. We will use a poster to display weekly report samples, data collection, and outcome results of achieved goals and time taken to achieve said goals.

Strands: Academic Success, Assessment/SoTL, DEI, HIF

1. Analyzing Factors Affecting Student Success in Public Health Courses*,* Katie Birger (Sociology, Anthropology, and Public Health)

The Public Health program recognizes the need for standardization and alignment within PBHL 300: Research Methods in Health, as inconsistencies in material, learning outcomes, activities, and grades have been observed across different sections. Furthermore, anecdotal evidence suggests that certain sections of PBHL 300 better prepare students for the subsequent course, PBHL 420: Epidemiology. We accessed student outcome data through Blackboard and student course review data through the UMBC Institutional Research, Analysis, and Decision Support website (IRADS) with the help of a UMBC Online Learning Analytics grant. We cannot identify one instruction method of PBHL 300 that better prepares students for PBHL 400 or clear differences in student course evaluation outcomes. Limitations include small sample sizes and the inability to control for many external variables. We plan to address these limitations by standardizing directly comparable learning assessments in all sections of both classes to measure student preparation.

Strands: Academic Success, Assessment/SoTL, Course/Curriculum Development

1. UMBC's Academic Advocacy Programs Increase Student Retention and Graduation, Delana Gregg and Amanda Sharp (Academic Success Center)

In 2019, UMBC established an Academic Advocacy program focusing on First-Time, Full-Time student success, persistence, and graduation rates. Using data, predictive analytics, and referrals from campus partners, students at risk of not persisting are identified and supported with a coordinated care approach. As a result, the Academic Advocates helped raise UMBC’s 6-year graduation rate to a record number! In 2021-2022, a First-Year and Second-Year Academic Advocacy Program was created, including an Academic Peer Advocacy program, and Academic Advocacy was expanded to support Transfer students. Data will be shared indicating the positive impact that these programs have had on students and retention/graduation rates. Assessment methods include student retention and graduation data, and student survey responses. The presenters will also share lessons learned from successful implementation of this campus-wide student support intervention, including data sources, campus partnerships, and the reporting and technological tools essential to the program.

Strands: Academic Success, Assessment/SoTL

1. Exploring Contributing Factors to Undergraduate and Graduate Student Sense of Belonging, Mary Ellen Wade (Student Affairs)

In spring 2023, the Student Affairs Assessment and Research Committee (SAARC) developed a survey to understand undergraduate and graduate student sense of belonging at UMBC. Questions were partially adapted from the University Belonging Questionnaire developed by Slaten, Elison, Deemer, Hughes, and Shemwell (2018) and centered aspects of the student experience: academic life, campus services, and out-of-classroom student life, areas represented in EAB’s (2021) Five Components of Student Belonging.

74% of students found it easy to develop relationships with peers at UMBC, and 78% have a faculty or staff member at UMBC that cares about them. 74% of students have at least one person they trust at UMBC to help if they encounter a problem, and 85% are proud to be a student at UMBC. These results challenged us to consider: “How might our programs, services, or initiatives create barriers to belonging?”

Strands: Academic Success, Assessment/SoTL