APPROVED
March 18, 2026
Melissa Bealon
Board Secretary Melissa Bealon

Item # G-2
March 18, 2026

NEW UNITS OF INSTRUCTION, PUBLIC SERVICE, AND RESEARCH AT PUBLIC UNIVERSITIES

Submitted for: Action.

Summary: This item requests approval of three degree programs and one administration unit at three public universities.

Action Requested: That the Illinois Board of Higher Education approves the following:

Chicago State University

- CSU Quantum Education, Science, and Technology Center in the Chicago Region

Northeastern Illinois University

- Bachelor of Science in Artificial Intelligence in the Chicago Region

Southern Illinois University Carbondale

- Bachelor of Science in Artificial Intelligence+ in the Southern Region
- Master of Science in Population Science in the Central Region

IBHE
ILLINOIS BOARD OF HIGHER EDUCATION

STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

NEW UNITS OF INSTRUCTION, PUBLIC SERVICE, AND RESEARCH AT PUBLIC UNIVERSITIES

By statute, the Illinois Board of Higher Education (IBHE) is responsible for approving new on-campus and off-campus units of instruction, organized research, and public service, and units of administration proposed by public university governing boards. The Board's approval criteria, defined in rules adopted for administering the statute, addresses university mission, academic control, faculty and staff, support services, financial resources, student demand, curriculum, statewide need, and congruence with Board policies and priorities. In addition to the approval criteria in rules, each new program was reviewed for its contributions to the goals of *A Thriving Illinois: Higher Education Pathways to Equity, Sustainability, and Growth*, which sets forth new priorities to guide Illinois higher education. Staff recommendations are based on analyses of application materials and responses to staff questions.

Executive Summary – Public Institutions

Chicago State University

- CSU Quantum Education, Science, and Technology Center in the Chicago Region

Chicago State University (CSU or the University) requests authorization to establish the CSU Quantum Education, Science, and Technology Center (CQuest Center) in the Chicago region. The CQuest Center will be a centralized hub for education, research, and workforce development in Quantum Information Science and Engineering. The Center builds upon the University's longstanding role as an anchor institution on Chicago's South Side and its history of serving predominantly Black, low-income, and first-generation students. With the Illinois Quantum and Microelectronics Park under construction less than five miles from campus, the University is positioned to connect local talent to emerging opportunities in a rapidly growing technology sector.

The Center is designed to coordinate and expand the University's existing strengths in quantum-related education, applied research, and community-based workforce preparation. Chicago State University currently participates in several major initiatives in quantum sensing, semiconductor workforce development, and critical technology education. Establishing the CQuest Center will unify these efforts by supporting interdisciplinary research across chemistry, biology, physics, computer science, and education; enhancing student engagement through structured learning experiences; and adding new academic credentials such as a Quantum minor and an undergraduate Quantum certificate. The Center will also expand outreach to regional schools and community partners through programs that introduce K–12 students and adult learners to quantum science and related career pathways.

As a mission-driven institution focused on educational attainment, economic justice, and community partnership, Chicago State University views the Center as an opportunity to align academic innovation with regional workforce needs. The Center's programs and partnerships will support ongoing research, strengthen career pathways, and expand access to high-demand fields

for South Side residents, contributing directly to statewide goals for equity, sustainability, and economic development.

The University's proposed mission and goals, academic plans, support services, and financial resources are aligned with statewide higher education priorities.

Approval request summary, including staff conclusion, follows in Attachment xxx.

Northeastern Illinois University

- Bachelor of Science in Artificial Intelligence in the Chicago Region

Northeastern Illinois University (NEIU or the University) is seeking authorization to offer a Bachelor of Science in Artificial Intelligence (BS in AI) in the Chicago region. The 120-credit hour program will be housed in the College of Business and Technology within the Department of Computer Science and builds upon the existing data science concentration of the Bachelor of Science in Computer Science program. The BS in AI emphasizes essential programming skills, rigorous algorithm analysis, and a strong foundation in artificial intelligence. Students will learn to design, document, and optimize algorithms that solve complex problems efficiently and scalably. The curriculum integrates ethics and responsible AI, addressing algorithmic bias, fairness, and societal impact to increase an understanding of how technical choices affect underrepresented communities. Advanced modules of the curriculum feature natural language processing, generative AI, and computer vision to prepare students to optimize sophisticated AI applications. By combining technical competence, practical experience, and ethical literacy, the proposed program supports Illinois' long-term workforce and economic development goals while cultivating a local pipeline of professionals equipped to advance innovation responsibly. Graduates of the proposed program will be prepared for roles such as an AI engineer, machine learning developer, data scientist (with AI specialization), and AI systems analyst across multiple business sectors and public agencies.

The University has developed campuswide initiatives to systemically close persisting equity and opportunity gaps in student outcomes and faculty hiring. There are institutional policies to ensure faculty and staff possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, and financial resources to support the program.

Approval request summary, including staff conclusion, follows in Attachment xxx.

Southern Illinois University Carbondale

- Bachelor of Science in Artificial Intelligence+ in the Southern Region

Southern Illinois University Carbondale (SIUC or University) is seeking authorization to offer a Bachelor of Science in Artificial Intelligence+ (BSAIP) in the Southern region. The program will be housed in the School of Computing (SoC) within the College of Engineering, Computing, Technology, and Mathematics. The 121-credit hour program is designed to equip students with core artificial intelligence (AI) principles, algorithms, and models to apply AI techniques to diverse real-world problems. The program is grounded in the traditional computing curriculum of the existing computer science program and is distinguished by its emphasis on artificial intelligence and machine learning.

The University has developed campuswide initiatives to systemically close persisting equity and opportunity gaps in student outcomes and faculty hiring. There are institutional policies to ensure faculty and staff possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, and financial resources to support the program.

- Master of Science in Population Science in the Central Region

Southern Illinois University Carbondale (SIUC or University) is seeking authorization to offer a Master of Science in Population Science (MSPS) in the Central region. The program will be housed in the Department of Population Science and Policy (PSP) within the SIU School of Medicine (SIUSOM). The 30-credit hour, hybrid program focuses on the biological, behavioral, and sociocultural determinants of health and health behavior, and the interventions and policies aimed at improving community and population health. The curriculum includes instruction in behavioral sciences, public health practice and policy, human services, and research methods. Students may select concentration areas such as research methodology and rural health policy to deepen their understanding and experience in the field of population science and policy. Graduates of the proposed program will gain knowledge in the main applications of population science to prepare for jobs in population health, health administration, public health and epidemiology, clinical research, and policy implementation.

The University has developed campuswide initiatives to systemically close persisting equity and opportunity gaps in student outcomes and faculty hiring. There are institutional policies to ensure faculty and staff possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, and financial resources to support the program.

Approval request summary, including staff conclusion, follows in attachments xxx.

The staff recommends adoption of the following resolutions:

The Illinois Board of Higher Education hereby grants to Chicago State University authorization to establish the CSU Quantum Education, Science, and Technology Center in the Chicago region, subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.

The Illinois Board of Higher Education hereby grants to Northeastern Illinois University authorization to grant the Bachelor of Science in Artificial Intelligence in the Chicago region, subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.

The Illinois Board of Higher Education hereby grants to Southern Illinois University Carbondale authorization to grant the Bachelor of Science in Artificial Intelligence+ in the Southern region, subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.

The Illinois Board of Higher Education hereby grants to Southern Illinois University Carbondale authorization to grant the Master of Science in Population Science in the Central region, subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.

Chicago State University

Proposed Unit Title in the Region of Authorization: CSU Quantum Education, Science, and Technology Center in the Chicago Region

> *New Administrative Unit*: The proposal is for the establishment of the CSU Quantum Education, Science, and Technology Center. The Center's mission is to serve as a hub for education, research, and workforce development in Quantum Information Science and Engineering with an emphasis on quantum biosensing and quantum pharmaceuticals.

Background

Chicago State University (CSU or the University) requests authorization to establish the CSU Quantum Education, Science, and Technology Center (CQuest Center) in the Chicago region. The CQuest Center will be a centralized hub for education, research, and workforce development in Quantum Information Science and Engineering. The Center builds upon the University's longstanding role as an anchor institution on Chicago's South Side and its history of serving predominantly Black, low-income, and first-generation students. With the Illinois Quantum and Microelectronics Park under construction less than five miles from campus, the University is positioned to connect local talent to emerging opportunities in a rapidly growing technology sector.

The Center is designed to coordinate and expand the University's existing strengths in quantum-related education, applied research, and community-based workforce preparation. Chicago State University currently participates in several major initiatives in quantum sensing, semiconductor workforce development, and critical technology education. Establishing the CQuest Center will unify these efforts by support interdisciplinary research across chemistry, biology, physics, computer science, and education; enhancing student engagement through structured learning experiences; and adding new academic credentials (e.g., Quantum minor and an undergraduate Quantum certificate). The Center will also expand outreach to regional schools and community partners through programs that introduce K–12 students and adult learners to quantum science and related career pathways.

As a mission-driven institution focused on educational attainment, economic justice, and community partnership, Chicago State University views the Center as an opportunity to align academic innovation with regional workforce needs. The Center's programs and partnerships will support ongoing research, strengthen career pathways, and expand access to high-demand fields for South Side residents, contributing directly to statewide goals for equity, sustainability, and economic development.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State of Illinois. B) The unit of instruction, research or public service meets a need that is not currently met by existing institutions and units of instruction, research or public service.

The proposed CSU Quantum Education, Science, and Technology Center is designed to address significant regional and statewide workforce needs in the rapidly expanding quantum technology sector. Increasing national policy emphasis on Quantum Information Science and

Technology, coupled with forecasts of substantial growth and diversification within the associated workforce, suggests an emerging and sustained demand for personnel across both technical and non-technical domains. This trajectory indicates expanding professional opportunities at multiple educational levels, including positions accessible to professionals holding a bachelor's degree. Illinois is recognized as a national leader in quantum research and development and requires a broader, more inclusive talent pipeline to sustain innovation and support the growth of related industries. Chicago State University's location on the South Side, its role as an anchor institution, and its service to predominantly Black, low-income, and first-generation students position the University to connect underrepresented populations to these opportunities in alignment with statewide goals.

Evidence of immediate demand for quantum-aligned education and training is observable in the University's existing programs. Recent high school quantum summer offerings received nearly double the number of applications relative to available seats, and the Earn and Learn semiconductor upskilling initiative drew more than 70 applications for 25 available positions. This suggests that current capacity is insufficient to meet student and community interest. Establishing the Center will provide the organizational framework to scale outreach, coursework, and hands-on learning, increasing the number of learners who can access early exposure, credentials, and applied experiences in quantum and semiconductor fields.

CSU's location and partnerships further support the need for the proposed CQuest Center. The Illinois Quantum and Microelectronics Park, under development less than five miles from campus, will concentrate employers and research partners, creating a proximate demand for talent that the Center can help supply through coordinated pathways, stackable credentials, and experiential learning. As a South Side hub, the Center will provide accessible entry points for high school students, CSU undergraduates, and adult learners, serving the needs of local residents and employers. By emphasizing applied workforce preparation and community-engaged programming, the Center is expected to complement, rather than duplicate, the research-intensive roles of other Illinois quantum entities.

Consistent with IBHE's *A Thriving Illinois* strategic plan, the Center will advance equity by widening participation for learners historically left behind, contribute to sustainability by leveraging shared institutional infrastructure and partnerships, and promote growth by aligning talent development with a high-priority sector of the state's economy. Through coordinated instruction, experiential learning, and collaboration with statewide partners, the Center is positioned to expand Illinois' quantum workforce while supporting community anchored economic development on the South Side.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

The proposed CQuest Center will support Goal 1, Equity of *A Thriving Illinois, to close the equity gaps for students who have been left behind*. The Center is structured to broaden access, progression, and completion for learners who are historically underrepresented in STEM, with particular attention to students on Chicago's South Side. Equity-focused, high-impact practices will be scaled, including structured internships, service learning, and the use of ePortfolios for reflection and career readiness. CSU will expand early college access by offering a dual enrollment course in quantum science that meets general education requirements in the physical sciences. The University has established an equity plan that mandates conducting equity-impact analyses for major institutional decisions and routinely reviewing disaggregated student data to identify and address disparities. The Center's advancement toward its equity goals will be assessed through an

integrated system of monitoring tools, including an equity dashboard, milestone tracking, campus climate surveys, and periodic equity-impact evaluations. Key indicators will encompass demographic patterns in participation in high-impact practices and dual enrollment opportunities, as well as metrics such as persistence and retention rates, credit accumulation, time to degree, and workforce outcomes. This data will guide the Center in refining programming to respond effectively to demonstrated student needs. In alignment with statewide priorities, the Center will also strengthen pipelines to recruit and retain diverse faculty, staff, and administrators through targeted talent development and professional learning in culturally responsive pedagogy, with accountability supported by annual workforce diversity reports and documented search committee training.

The CQuest Center will support Goal 2, Sustainability of *A Thriving Illinois, to build a stronger financial future for individuals and institutions*. The Center is structured as a coordinating hub that leverages existing faculty expertise, laboratories, computational resources, and centralized administrative services to avoid duplication. Stackable certificates and a quantum minor are integrated into existing degree pathways, enabling students to acquire validated, industry-relevant skills without extending their time to degree, while allowing the institution to maximize the efficient use of shared facilities and personnel. The Center's effectiveness will be evaluated through indicators such as the utilization of shared facilities and faculty, overhead recovery ratios, and growth in external funding relative to administrative costs. The CQuest Center's long-term sustainability will also depend on strategic collaboration and the cultivation of diversified revenue streams. The Center will align its activities across disciplines on campus, developing articulated transfer pathways with the City Colleges of Chicago and engaging statewide and national partners, including the Chicago Quantum Exchange, Argonne National Laboratory, and Fermilab. The Center will advance future-ready learning by providing cloud-based access to quantum systems, state-of-the-art simulation software, industry-aligned capstone experiences, and agile microcredentials. The CQuest Center will be evaluated through employer feedback, direct evidence of student competencies, research productivity, and engagement in community-facing initiatives. Financial stewardship will follow a diversified revenue model that incorporates targeted seed investments, competitive grants and philanthropic contributions, industry contracts and sponsorships, and tuition revenue from certificate and upskilling programs. Phased growth will be guided by indicators such as leverage ratios of external to public funds, student placement and wage outcomes, partnership renewals, and long-term cost-recovery trends.

The proposed Center will support Goal 3, Growth of *A Thriving Illinois, to increase talent and innovation to drive economic growth* by working to expand Illinois' quantum talent pipeline through applied instruction, stackable credentials, and research experiences that connect learners to high-demand roles across the state's emerging quantum and microelectronics ecosystem. Programming will include cloud access to quantum platforms, simulation software, and industry-sourced capstone projects that translate classroom learning into workplace skills. These activities will be coupled with workforce pathways that begin with early awareness in K–12 settings and extend through undergraduate certificates and Earn and Learn training.

Growth will be fostered through partnerships that link students and faculty with the State's innovation network and regional employers. The Center plans to collaborate with the Illinois Innovation Network and the Discovery Partners Institute, and engage with the Chicago Quantum Exchange, Argonne National Laboratory, and Fermi National Accelerator Laboratory for internships, curriculum input, and applied research. The CQuest Center will also coordinate articulated 2+2 certificate pathways with the City Colleges of Chicago and align programming

with the Illinois Quantum and Microelectronics Park located near campus, creating a direct connection between education, research, and job placement. These collaborations are intended to support talent development for roles in quantum biosensing, computing, communications, and security. The Center's community-anchored approach will advance the public good by engaging South Side residents through dual enrollment, summer programs, and upskilling initiatives such as Mic2ExL, while its Elevate 17 collaboration with Chicago Public Schools will broaden students' exposure to quantum careers. Collectively, these strategies are structured to broaden student access to high-impact learning, elevate credential attainment, and strengthen pathways into the state's emerging quantum economy.

Comparable Units in Illinois

Illinois hosts several prominent quantum initiatives with distinct missions and scopes. At the University of Illinois Urbana-Champaign in the Prairie Region, the Illinois Quantum Information Science and Technology Center (IQUIST) operates within a large research university environment, emphasizing frontier discovery in core sciences, advanced materials, and algorithm development that primarily supports PhD level research and training. In contrast, the proposed CSU Quantum Education, Science, and Technology Center is designed as a complementary hub focused on applied education and workforce preparation, aligning undergraduate instruction and certificate pathways with industry needs. This positioning allows the CQuest Center to connect learners with established research pathways while focusing on the development of competencies aligned with bachelor's-level entry into the quantum workforce.

While not a unit of administration, the University of Chicago's collaboration with IonQ functions as an international hub for state-of-the-art quantum computing research and network development, coupling advanced research activity with corporate engagement. Comparatively, the proposed CQuest Center is differentiated by its role as an educational "bedrock," building the regional talent pool through hands-on learning, community-anchored outreach, and stackable credentials that align with nearby employers, including those at the Illinois Quantum and Microelectronics Park located within close proximity to CSU.

Mission and Objectives

1050.30(a)(1): A) The objectives of the unit of instruction, research or public service are consistent with the mission of the college or university. B) The objectives of the unit of instruction, research or public service are consistent with what the unit title implies.

The CSU Quantum Education, Science, and Technology Center will serve as the University's hub for education, research, and workforce development in Quantum Information Science and Engineering, with an emphasis on quantum biosensing and quantum pharmaceuticals. The Center's objectives are to expand career pathways through industry and public sector partnerships, deliver advanced training in updated quantum laboratories, build collaborations with state and federal agencies, engage residents and businesses through community programming, support faculty and staff in advancing research and innovation, and catalyze investment in emerging science. These objectives align with Chicago State University's mission to advance student learning, research, and community partnerships on Chicago's South Side.

Assessment

1050.30(a)(2): The design, conduct and evaluation of the unit of instruction, research or public service are under the direct and continuous control of the sponsoring institution's established processes for academic planning and quality maintenance.

Assessment of Outcomes

Assessment 1050.30(b)(1) [applicable only to units of instruction]: A) The caliber and content of the curriculum must assure that the objectives of the unit of instruction will be achieved. B) The breadth and depth of the curriculum must be consistent with what the title of the unit of instruction implies. C) The admission and graduation requirements for the unit of instruction must be consistent with the stated objectives of 23 the unit of instruction. D) Institutions must show the capacity to develop, deliver and support academic programs. Procedures and policies that will assure the effective design, conduct and evaluation of the degree programs under the academic control of the institution must be developed. Assessment plans must demonstrate that the institution has identified clear and appropriate program and student learning goals and has defined appropriate outcomes. Appropriate data must be collected and may be requested by the Board to show the level of student learning that has occurred as a result of participation in the institution's programs of study.

1050.30(a)(2): The design, conduct and evaluation of the unit of instruction, research or public service are under the direct and continuous control of the sponsoring institution's established processes for academic planning and quality maintenance.

The Center will implement an integrated outcomes framework that aligns with Chicago State University's 2025–2030 Strategic Plan and regional workforce priorities in quantum and microelectronics. The assessment will include four domains: research, teaching, workforce development, and community engagement, with results compiled in an annual report on instructional effectiveness and workforce outcomes. Evidence will include enrollment and completion data, learning artifacts from coursework and capstones, employer and partner feedback, research outputs, and documentation of community participation. These processes are organized to demonstrate mission alignment, instructional quality, and institutional effectiveness consistent with the University's quality assurance practices.

Student success indicators will include a target of a 20 percent annual increase in enrollment for the Quantum certificate, an 85 percent program completion rate, and a 75 percent job placement or advanced study rate within six months of completion. Results will be reviewed using disaggregated data to monitor equity in access, progression, and outcomes. Tools will include an equity dashboard, milestone tracking, campus climate surveys, and equity impact reviews, with findings used to inform curricular adjustments, student support services, and pathway design.

Partnership and sustainability indicators will track the breadth and productivity of external engagement and the diversification of resources. Targets include securing at least two new external grants annually, generating 30 percent of the operating budget from external funding, and producing five peer reviewed publications or patents every three years. Additional measures will include the number of new industry partnerships established each year, the utilization of shared facilities, recovery of grant overhead, and growth in external funding relative to administrative costs.

Community and workforce impact will be measured by participation and placement outcomes in priority programs. Annual targets include 30 high school participants in quantum sensing summer camps and support for 25 high school graduates in the Earn and Learn Mic2ExL initiative. Operational quality measures will include internal audits, laboratory readiness checks (with a goal of at least 95 percent equipment uptime), and technology and space utilization assessments. The results will be shared with campus leadership and partners to guide phased growth, program refinement, and resource allocation.

Facilities

1050.30(a)(4): A) Facilities, equipment and instructional resources (e.g., laboratory supplies and equipment, instructional materials, computational equipment) necessary to support the high quality academic work in the unit of instruction, research or public service are available and maintained. B) Clinical sites necessary to meet the objectives of the unit of instruction, research or public service. C) Library holdings and acquisitions, owned or contracted for by the institution, that are necessary to support high quality instruction and scholarship in the unit of instruction, research and public service, are conveniently available and accessible, and can be maintained.

The Center will operate within the existing campus infrastructure that supports instruction, research, and outreach. Dedicated offices are available for the director and administrator, and standard classrooms are supported by the Center for Teaching and Research Excellence, which provides the learning management system and related instructional technologies. One laboratory classroom is being modernized through a U.S. Department of Education grant, with completion planned for Spring 2026. A second renovation to create an interdisciplinary quantum teaching space has been proposed, with a funding decision expected in spring 2026. These facilities are embedded in established University operations for ongoing maintenance and support.

The CQuest Center will utilize specialized laboratories and equipment for quantum and materials work such as a Bruker Atomic Force Microscope and a Multimode Atomic Force Microscope for nanoscale surface characterization, a scanning electron microscope for high resolution imaging, and optical tables for vibration sensitive photonics experiments. Supporting infrastructure will include detector testing and electronics laboratories, a developing quantum optics laboratory, and a planned quantum simulation system to strengthen instructional and research activities. Chemistry and life science capability will include bio, organic, and physical chemistry laboratories, a cryogenic storage facility, and a flow cytometry laboratory, supplemented by core facilities for nuclear magnetic resonance, mass spectrometry, chromatography, and transmission electron microscopy. High-performance computing clusters in Chemistry, Physics, and Computer Science will provide resources for modeling and data analysis. Laboratory readiness will be monitored through internal audits that target at least 95 percent operational availability. The Center will not require clinical placements; applied and experiential learning will occur in campus laboratories and through collaborations with external partners.

The University Library is a full-service academic library that participates in major consortia, including CARLI, CRL, and OCLC, which expands access to journals, databases, and other materials. Electronic resources are available to students and researchers remotely. Services include research consultations, information literacy instruction for courses, citation management support, and multiple access points to librarians by telephone, email, and 24-hour chat. University Archives and Special Collections provide additional support for historical and interdisciplinary inquiry. These holdings and services are readily available and can be maintained within existing institutional structures.

Faculty and Staff

1050.30(a)(3): A) The academic preparation and experience of faculty and staff ensure that the objectives of the unit of instruction, research or public service are met. B) The academic preparation and experience of faculty and staff, as evidenced by level of degrees held, professional experience in the field of study and demonstrated knowledge of the field, ensure that they are able to fulfill their academic responsibilities. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. C) The involvement of faculty in the unit of instruction, research or public service is sufficient to cover the various fields of knowledge encompassed by the unit, to sustain scholarship appropriate to the unit, and to assure curricular continuity and consistency in student evaluation. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

The Center will operate with a defined leadership and support structure within existing University units. The director will report to the provost and guide strategy, partnerships, and budgets, while the administrator will manage daily operations, grants, and compliance. A recruiter and outreach coordinator will develop pipelines with South Side schools and community partners, and a coordinator for research and laboratory activities will oversee laboratories, equipment access, and safety. Faculty leads in physics and engineering, chemistry, computer science, and biology will align curricula and student projects with workforce needs, while remaining housed within their home departments and collaborating with the Center to deliver instruction, research mentorship, and experiential learning. Chairs and deans will prioritize future faculty hires with quantum and semiconductor expertise to strengthen these academic links.

Faculty recruitment and retention practices will reflect the University's focus on racial equity and representation. Current faculty demographics reflect substantial diversity, with 66 percent identifying as African American, including more than 37 percent within chemistry and physics, and 52 percent of faculty identifying as women. Annual workforce diversity reporting, search committee training, and outcome monitoring will support continuous improvement in representation and inclusion.

Faculty support will include access to upgraded instructional laboratories, cloud resources for quantum computing and simulation, and interdisciplinary project opportunities with statewide partners such as the Chicago Quantum Exchange, Argonne National Laboratory, and Fermi National Accelerator Laboratory. Professional learning will be offered in culturally responsive pedagogy, equity-focused practices, and industry-aligned curriculum design, and will be available to faculty at all levels who teach or mentor students affiliated with the Center. Faculty will engage in course and module development for stackable credentials, mentor undergraduate researchers, and collaborate with Education faculty to create materials for K–12 educator training.

Faculty evaluation will be aligned with established University processes and the Center's outcomes framework. Evidence of contributions may include research outputs, external funding activity, student mentorship and completion of credentials, employer or partner feedback on

capstones and internships, and participation in community-engaged programming. Operational quality measures, such as laboratory readiness and equipment uptime, will inform support planning and resource allocation for teaching and research. Results will be reviewed annually by Center leadership in collaboration with departments to inform professional development, recognize faculty contributions, and refine workload expectations and support structures.

Fiscal and Personnel Resources

1050.30(a)(5): A) The financial commitments to support the unit of instruction, research or public service are sufficient to ensure that the faculty and staff and support services necessary to offer the unit of instruction, research or public service can be acquired and maintained. B) Projections of revenues necessary to support the unit of instruction, research or public service are based on supportable estimates of state appropriations, local tax support, student tuition and fees, private gifts, and/or governmental grants and contracts.

The Center is organized as a coordinating hub that leverages existing faculty expertise, laboratories, computational resources, and centralized administrative services. This approach concentrates new spending on instruction, research, and workforce programming while avoiding duplication of campus systems. Grants management, human resources, and finance functions are supported through established University processes, allowing the Center to operate with a small core team and to scale activities through shared facilities and cross-department collaboration.

The Center's financial strategy is grounded in a diversified revenue model consisting of University and state seed investments, competitive grant funding, philanthropic support, industry contracts and sponsorships, and tuition from certificate and workforce-development offerings. Leveraging the University's robust quantum and semiconductor research portfolio, the Center is well positioned to attract external awards and strategic partnerships. Current and anticipated resources include federal funding in quantum and materials science, a $457,000 QuBBE allocation, and Mic2ExL program resources supporting personnel, student stipends, training materials, and laboratory buildout. Program growth will follow a phased, demand-driven model, with cost efficiencies achieved through shared facilities and staffing.

Personnel resources include a director who reports to the provost and an administrator who manages day-to-day operations, compliance, and events. A recruiter and outreach coordinator will partnerships with South Side high schools, community colleges, and community organizations, and a coordinator for research and laboratory activities will oversee laboratory access, equipment readiness, and safety. Faculty leads in physics and engineering, chemistry, computer science, and biology will remain appointed within their home departments and collaborate with the Center on curriculum, research mentorship, and experiential learning aligned with workforce needs. The application identifies staged faculty capacity growth, including a tenure-track hire in year two with release time to support Center activity and an additional hire in year three with a portion of the salary supported through an external partnership. Administrative personnel costs associated with expansion are supported in part by existing grant funds.

Financial stewardship and staffing sufficiency will be monitored through the utilization of shared facilities, external funding growth relative to administrative costs, and partnership outputs tied to internships, capstone projects, and research deliverables. This structure is intended to sustain program quality, maintain affordability through the shared infrastructure, and align talent development with verified demand in the regional quantum and microelectronics ecosystem.

Accreditation and Licensure

1050.30(b)(3)[applicable only to units of instruction]: Appropriate steps shall be taken to assure that professional accreditation needed for licensure or entry into a profession as specified in the objectives of the unit of instruction is maintained or will be granted in a reasonable period of time.

There is no specialized accreditation or licensure required.

Program Information

1050.30(b)(2)[applicable only to units of instruction]: A) The information which the institution provides for students and the public shall include the following: i) An accurate description of the unit of instruction, including its objectives, length, and residency requirements if any; ii) Schedule of tuition, fees, and all other charges and expenses necessary for completion of the unit of instruction, cancellation and refund policies; iii) Student rights and responsibilities; iv) A statement regarding the transferability of college credits, including the fact that the decision to accept transfer credits is determined by the receiving institutions; v) A statement as to how the institution will advise students on the nature of the transfer process, including the importance of consulting with institutions to which the student may seek to transfer; vi) Evidence of arrangements for the transfer of courses or credits or both to institutional counterparts, when these arrangements exist; these arrangements are also known as articulation agreements; vii) A statement of the institution's most recent graduation rates and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; and viii) Other material facts concerning the institution and the unit of instruction as are likely to affect the decision of the student to enroll. B) The information listed in subsection (b)(2)(A) shall be available to prospective students prior to enrollment and shall be included in the institution's catalog of programs.

Detailed information about the proposed Center will be published on the University's website.

Staff Conclusion

The staff concludes that the CSU Quantum Education, Science, and Technology Center proposed by Chicago State University meets the criteria to implement the Board of Higher Education Act (110 ILCS 205/et.seq.) as set forth in 23 Illinois Administrative Code, Ch. II, Section 1050.30, and the Illinois Board of Higher Education polices pertaining to assessment and accreditation or licensure.

Northeastern Illinois University

Proposed Degree Title in the Region of Authorization: Bachelor of Science in Artificial Intelligence in the Chicago Region

Projected Enrollments and Degrees

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
90	200	90

Background

Northeastern Illinois University (NEIU or the University) is seeking authorization to offer a Bachelor of Science in Artificial Intelligence (BS in AI) in the Chicago region. The proposed program will be housed in the College of Business and Technology within the Department of Computer Science and emphasizes essential programming skills, rigorous algorithm analysis, and a solid foundation in artificial intelligence. Students will learn to design, document, and optimize algorithms that solve complex problems efficiently and scalably. The curriculum integrates ethics and responsible AI, addressing algorithmic bias, fairness, and societal impact to increase an understanding of how technical choices affect underrepresented communities. Advanced modules of the curriculum feature natural language processing, generative AI, and computer vision to prepare students to optimize sophisticated AI applications. By combining technical competence, practical experience, and ethical literacy, the proposed program supports Illinois' long-term workforce and economic development goals while cultivating a local pipeline of professionals equipped to advance innovation responsibly.

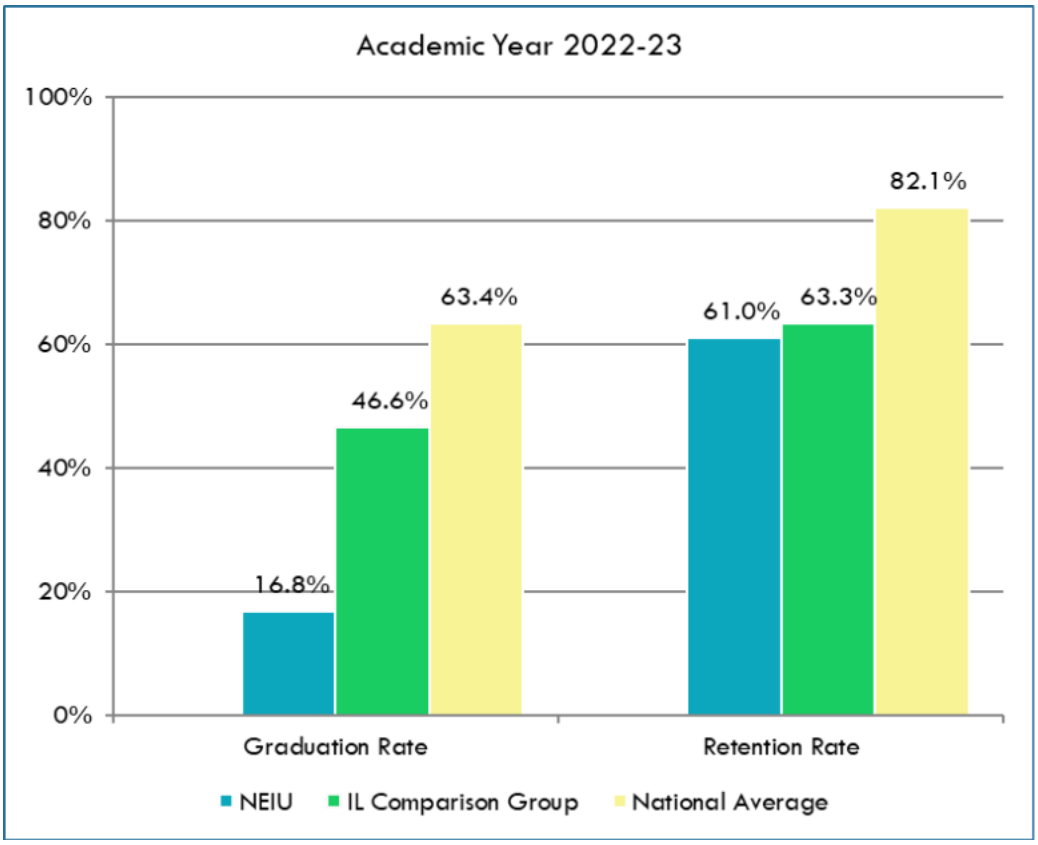
The proposed artificial intelligence program is 120 credit hours and builds upon NEIU's existing data science concentration of the computer science program, sharing most of its foundational courses and administrative resources. Students will gain hands-on experience practicing modular software engineering, version control, and collaborative debugging. Graduates of the proposed program will be prepared for roles such as an AI engineer, machine learning developer, data scientist (with AI specialization), and AI systems analyst across multiple business sectors and public agencies. The program's strong theoretical foundation also positions graduates for advanced study in artificial intelligence, computer science, data science, and related graduate programs.

Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

This section includes information about institutional and student success measures for Northeastern Illinois University. The institution's rates will be compared to Illinois institutions from within a select comparison group and against the national standards or averages. For a proposed undergraduate program, this section will include undergraduate graduation rates, first to second year retention rates, student loan default rates, and any applicable licensure passage rates. For a proposed graduate program, this section will primarily focus on student loan default data since this measure also includes graduate students in the calculation.

Undergraduate Graduation and Retention Rates



Source: National System for Education Statistics (NCES), U.S. Department of Education
Note: Northeastern Illinois University is in the four-year, inclusive Illinois comparison group. Higher percentages are positive indicators.

Undergraduate Graduation Rate

The graduation rate measures the rate at which entering freshmen graduate within 150 percent of normal program length. Data is provided for six-year graduation rates for first-time, full-time bachelor's degree-seeking students and three-year graduation rates for full-time associate degree-seeking students. The national standard for graduation rates is reported annually by the National Center for Education Statistics (NCES).

Undergraduate Retention Rate

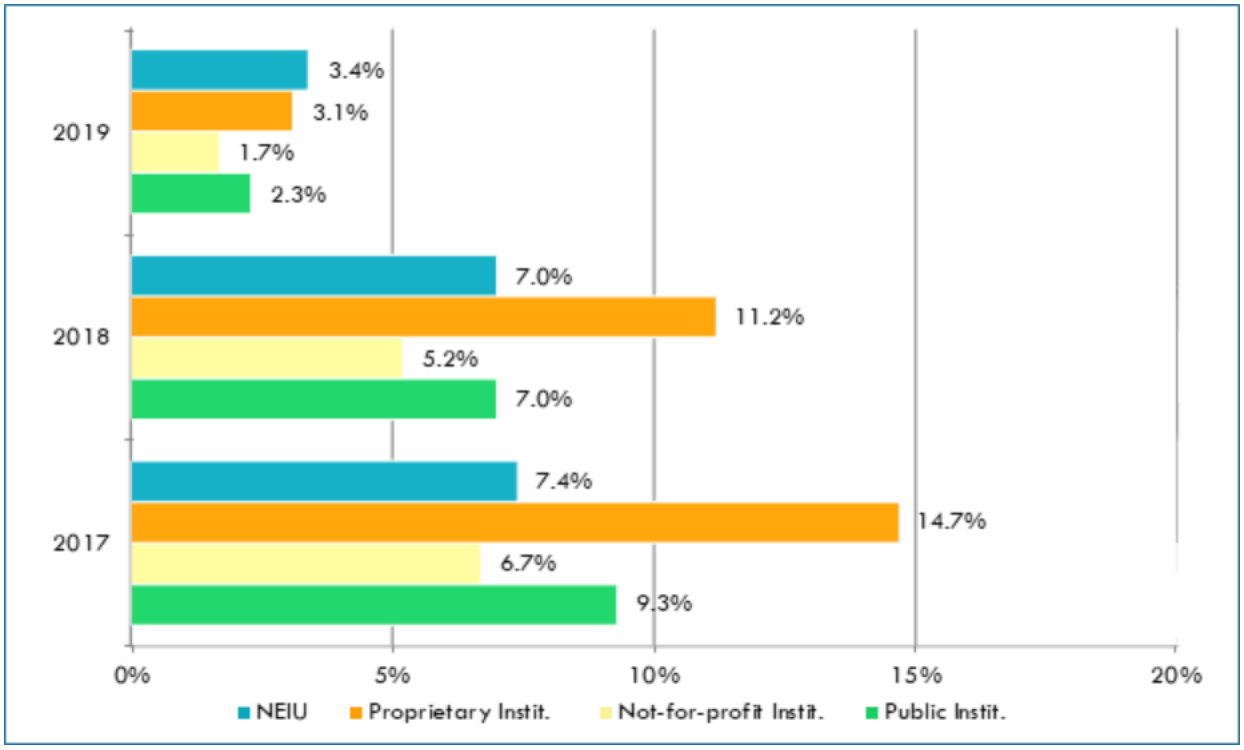
Retention rates examine the percentage of first-time degree seeking students enrolled in the fall of the prior year that are still enrolled in the fall of the current year. The national standard for retention rates is reported annually by NCES.

Undergraduate Completions per 100 FTE

Academic Year 2022-23	Northeastern Illinois University	Comparable Illinois Institutions
	34	32.4

The full-time equivalent (FTE) data is a unit of measurement intended to represent one student enrolled full time for one academic year. The calculation is based upon credit/contact hours offered at an institution divided by a standard minimum (12 credit hours) full-time course load. The completions per 100 FTE data are included to provide a holistic view of completion across different student populations.

Three-Year Cohort Student Loan Default Rate



Source: National Center for Education Statistics (NCES), U.S. Department of Education
Note: Due to the pause on federal student loan payments that began in March 2020, the cohort default rate for fiscal year 2020 is zero percent for the institution and all institution types. The national cohort default rate for fiscal year 2019 was 2.3 percent and zero percent for fiscal years 2020 and 2021.
A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Loan Programs during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State of Illinois. B) The unit of instruction, research or public service meets a need that is not currently met by existing institutions and units of instruction, research or public service.

The proposed program was developed in consultation with the College of Business and Technology's Executive Council (advisory board) comprised of corporate and professional leaders from business, technology, and related fields. The advisory board's primary role is to provide external input on industry trends, workforce needs, and emerging competencies to enhance the relevance and quality of the College's academic programs. In relation to the BS in AI, the computer science subcommittee emphasized the growing importance of artificial intelligence across business and industry and the value of graduates with in-depth AI skills. During regular advisory board meetings, computer science faculty shared updates on curriculum development and the proposed AI program, and board members provided constructive feedback informed by current industry practices and labor market trends. This ongoing dialogue ensures program alignment with employer expectations and prepares students for AI-related careers.

Labor market data underscores the urgent need for AI trained professionals. The U.S. Bureau of Labor Statistics projects an employment growth of 34 percent for data scientists, 20 percent for computer and information research scientists, and 15 percent for computer and information systems managers from 2024 to 2034, much faster than the average for all occupations. Locally, the Illinois Department of Employment Security predicts a 9.23 percent growth rate for computer occupations between 2022 to 2032 with 191,574 jobs projected each year throughout the decade. Additionally, McKinsey & Company's 2025 global survey reports that 78 percent of firms deploy AI in at least one business function, up from 55 percent in the previous year, and CompTIA's review of Lightcast postings in August 2025 shows a 94 percent year-over-year surge in Illinois job ads requiring AI skills. To meet this demand, the proposed program is designed to produce a sizable pipeline of graduates supplying Illinois with AI-ready talent. Courses in machine learning, ethical AI, natural language processing, and machine learning operations are mapped to competencies requested by Illinois employers ensuring that graduates are job ready.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

As a Hispanic-Serving Institution (HSI) and Minority-Serving Institution (MSI) with a diverse student population, NEIU is committed to promoting equity and eliminating disparities in degree completion rates for underserved populations, improving access, promoting social justice, and improving educational outcomes for graduates and the communities in which they serve. Supportive of IBHE's *A Thriving Illinois: Goal 1, Equity, to close equity gaps for students who have historically been left behind,* NEIU's strategic plan systematically addresses the barriers that have historically undermined the success of traditionally underrepresented students. The University's undergraduate population is 45 percent Hispanic and 12 percent Black, groups whose statewide high school graduation rates lag behind those of their White and Asian peers. The proposed program is intentionally structured to increase persistence and completion rates for underrepresented students. Advisors, faculty, and peer mentors will visit partner high schools and community colleges to recruit students by demonstrating practical AI projects (e.g., voice assistants, medical image classifiers, and smart-factory robots) that make the field more tangible and aspirational. Year-round AI clubs and hackathons will pair pre-college participants with NEIU undergraduates, creating near-peer mentoring pipelines proven to boost belonging and academic confidence. These evidence-based strategies will build upon departmental initiatives to increase first-year retention and four-year graduation rates among first-generation and low-income students. Moreover, NEIU's diversity goals extend beyond students to encompass faculty and staff with representation from multiple racial and ethnic groups, thus aligning with its mission to serve a diverse student population and increase faculty representation from all underrepresented backgrounds.

In alignment with *A Thriving Illinois: Goal 2, Sustainability, to build a stronger financial future*

for individuals and institutions by finding ways to reduce the financial burden of education on students and their families, NEIU has developed programs and initiatives to increase college accessibility and affordability for students. The "NEIU For You" scholarship covers any tuition shortfall for up to 12 credit hours each term (four years for new freshmen, two years for qualifying transfers and veterans), ensuring low-income students pay no tuition out of pocket. The University's premier merit award, worth more than $60,000 over four years, includes full in-state tuition, fees, and an annual book allowance for up to six high-achieving students each year. In addition, hundreds of need-based and merit scholarships are awarded to students; many earmarked for STEM majors ranging from one-time grants of $500 to multi-year packages that approach full tuition. Students participating in TRIO Student Support Services and the McNair Scholars program have access to wraparound programs that combine intensive advising, financial aid counseling, and graduate school preparation. Through the Student Center for Science Engagement, incoming and first-year students have the opportunity to participate in paid summer research camps and faculty-guided projects that provide stipends to offset college expenses. By layering institutional scholarships and grants with federal aid, work study, and paid research opportunities, NEIU aims to remove financial barriers to make college more affordable for students, especially those from low-income and first-generation backgrounds.

The proposed program will contribute to *Goal 3 of A Thriving Illinois, Growth, to increase talent and innovation to drive economic growth* by preparing a job-ready AI workforce and leveraging NEIU's existing partnerships with local, regional, and state employers. The development of the BS in AI was informed by ongoing engagement with business and industry partners, including members of the College's Executive Council and faculty with substantial industry experience in artificial intelligence and related fields. Executive Council members provided input on emerging workforce trends, hiring expectations, and the technical and professional skills needed for early-career AI practitioners. This feedback was incorporated into the program design process to ensure alignment with current industry practices, tools, and competencies.

The College of Business and Technology and the Department of Computer Science regularly host events such as hackathons, NETT Day, and the International Business Conference which feature industry speakers that share current trends, applied use cases, and career pathways in AI and computing. These engagements connect students with employers and expose them to real-world applications of AI across various sectors. In addition, the College's Business Innovation and Growth (BIG) Center supports students interested in entrepreneurship and commercialization by providing resources, mentoring, and guidance to help transform innovative ideas into viable ventures. Together, these workforce and innovation-focused partnerships position graduates to contribute to Illinois' technology ecosystem through employment, applied collaboration, and entrepreneurial activity. The College of Business and Technology also offers a range of career readiness workshops designed to support experiential learning and professional preparation such as resume development, internship search strategies, networking, and guidance on using Handshake and LinkedIn platforms. The Department of Computer Science complements these collegewide offerings with discipline-specific sessions focused on technical interview preparation and career pathways in computing and related fields.

Comparable Programs in Illinois

According to the IBHE Program Inventory, two Illinois institutions offer baccalaureate programs in artificial intelligence (Classification of Instructional Program or CIP code 11.0102). Among these institutions, only one program is offered in the Chicago region at the Illinois Institute of Technology. NEIU will be the first state university in Chicago to offer an undergraduate AI degree with an ethics-first curriculum providing an affordable postsecondary pathway for first-generation and underrepresented students.

The proposed program will expand geographic and socioeconomic access for Chicago area students that cannot afford private tuition or relocation. The BS in AI will also create transfer pathways from area community colleges and strengthen statewide talent; thus, filling a geographic and equity gap in Illinois' undergraduate AI landscape while offering ethical, career-ready, and community-focused features not fully addressed by existing programs.

Comparable Baccalaureate Programs Artificial Intelligence			
Institution	**Degree**	**Region**	**Sector**
Illinois Institute of Technology	B.S. in Artificial Intelligence	Chicago	Independent, Not-for-profit
Lewis University	B.S. in Artificial Intelligence	South Metro	Independent, Not-for-profit

Source: IBHE Program Inventory

Mission and Objectives

1050.30(a)(1): A) The objectives of the unit of instruction, research or public service are consistent with the mission of the college or university. B) The objectives of the unit of instruction, research or public service are consistent with what the unit title implies.

The University prepares a diverse community of students for leadership and service in the Chicago region and in a dynamic multicultural world. The proposed program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the program's objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: A) The caliber and content of the curriculum must assure that the objectives of the unit of instruction will be achieved. B) The breadth and depth of the curriculum must be consistent with what the title of the unit of instruction implies. C) The admission and graduation requirements for the unit of instruction must be consistent with the stated objectives of the unit of instruction. D) Institutions must show the capacity to develop, deliver and support academic programs. Procedures and policies that will assure the effective design, conduct and evaluation of the degree programs under the academic control of the institution must be developed. Assessment plans must demonstrate that the institution has identified clear and appropriate program and student learning goals and has defined appropriate outcomes. Appropriate data must be collected and may be requested by the Board to show the level of student learning that has occurred as a result of participation in the institution's programs of study.

1050.30(a)(2): The design, conduct and evaluation of the unit of instruction, research or public service are under the direct and continuous control of the sponsoring institution's established processes for academic planning and quality maintenance.

Admission Requirements

Freshman applicants with a 2.5 cumulative high school GPA will be guaranteed admission to the proposed program. Transfer students must have a cumulative GPA of 2.0 or higher on a 4.0 scale from all colleges, universities, and trade schools attended. A high school transcript is required if the applicant has completed fewer than 24 semester hours of college credit. International

applicants must meet the University's requirements for admission along with English language proficiency (Paper-based TOEFL: 500, Computer-based TOEFL: 173, Internet-based TOEFL: 61, and IELTS composite score: 6.0) and non-immigrant student visa status requirements.

NEIU has been test-optional since Fall 2021. Standardized test scores are not required for admission to the University; however, applicants are encouraged to submit test scores in order to meet some scholarship and prerequisite requirements.

Curriculum

The proposed BS in Artificial Intelligence program is intentionally designed to support students from diverse backgrounds and ensure broad access to AI education. Students must earn a minimum of 120 semester hours to graduate, of which 62 credit hours will include upper-division math courses, core courses, major courses, and two electives. Courses are delivered through lectures, hands-on labs, interactive online materials, and flexible office hours to accommodate varied learning styles and schedules. Inclusive teaching practices within the program emphasize clear communication of expectations, scaffolded learning activities, varied instructional formats, and multiple ways for students to engage with course material. Equity and inclusion are embedded in the curriculum with core courses covering concepts such as algorithmic bias, fairness, and privacy preservation, encouraging students to consider how AI technologies affect marginalized communities. Assignments and projects incorporate case studies in which students analyze data choices and system behavior from an ethical and societal perspective. An ethics-first curriculum is integrated across multiple courses such as CS 235: Artificial Intelligence for All which devotes a full module to responsible AI, including bias, privacy, safety, governance, and case studies of real-world harm and mitigation; CS 352: Programming for Artificial Intelligence that examines how programming and data choices affect reliability, transparency, and potential bias in AI systems ensuring students build applications that are both technically sound and socially responsible; and CS 348: Computer Ethics and Public Policy that covers ethical frameworks, privacy, responsibility, public policy, and legal considerations surrounding computing technologies. Team projects are structured to maximize cross-cultural collaboration supported by adaptive learning tools and free tutoring consistent with NEIU's HSI mission. Together, these team projects and courses ensure that graduates are prepared to evaluate and deploy AI systems with fairness, accountability, and societal impact in mind.

To support student success, the program will leverage tutoring, mentoring, and peer collaboration opportunities that connect students with diverse experiences and viewpoints. By combining inclusive pedagogy, accessible institutional support, and curricular attention to the social dimensions of AI, the program will create an environment conducive for students from a wide range of backgrounds (including those historically underrepresented in computing) to develop both technical competence and ethical awareness to thrive in the field. NEIU advances student engagement and success by embedding high-impact educational practices across the curriculum and through enhanced student support structures and holistic advising practices to ensure that all students engage in experiential, reflective, and career-aligned learning experiences that promote persistence, completion, and post-graduation success. The Integrated Comprehensive Advising for Retention and Excellence (iCARE) program is a new, ongoing initiative to create an effective and holistic advising structure which features detailed student tracking, enhanced communication, and shared resources for advisors across campus to better serve the advising and professional development needs of students.

Additionally, the proposed program is supported by the College of Business and Technology's professional advising team, which plays a central role in promoting student success. The advising team provides timely information, individualized guidance, and ongoing support to

help students make informed academic and career decisions. Advisors regularly monitor student progress, proactively identify potential challenges, and coordinate targeted interventions to ensure students remain on track and receive appropriate support when needed.

Assessment of Student Learning

At the course level, multiple forms of assessment such as programming assignments, written analysis, and presentations allow students to demonstrate learning in ways that reflect their strengths. Student learning assessment data is compiled each semester, reviewed by the departmental assessment committee, and used to inform continuous improvement of the curriculum. Students are encouraged to maintain LinkedIn profiles and register with Alumni Relations to enable the computer science department to monitor post-graduation outcomes (e.g., employment, career progression, and graduate study) on an annual basis that provide indirect measures of program effectiveness.

Program Assessment

To evaluate and improve the BS in AI program, the computer science department will aggregate metrics related to student learning goals and compile course evaluation metrics. The department will also track faculty achievements including publications, grants, mentored students, and activities related to industry connections, retention, and departmental service. These metrics will capture short-term performance and long-term trends to inform programmatic adjustments and resource planning.

Facilities (space, equipment, instructional materials)

1050.30(a)(4): A) Facilities, equipment and instructional resources (e.g., laboratory supplies and equipment, instructional materials, computational equipment) necessary to support the high-quality academic work in the unit of instruction, research or public service are available and maintained. B) Clinical sites necessary to meet the objectives of the unit of instruction, research or public service. C) Library holdings and acquisitions, owned or contracted for by the institution, that are necessary to support high quality instruction and scholarship in the unit of instruction, research and public service, are conveniently available and accessible, and can be maintained.

The University's existing facilities are adequate to support the proposed program. The BS in AI program will utilize breakout rooms, dedicated tutoring and research spaces, classrooms with modern instructional technology, nine computer labs with approximately 400 workstations, and the College of Business and Technology's computing lab with 35 workstations and six servers.

Current library collections, resources, and services are sufficient to support the proposed program. The University possesses appropriate library resources including access to online databases, books, journal holdings, and other electronic resources to support instruction and scholarly work. NEIU's Ronald Williams Library has statewide access to resource sharing through I-Share and provides an extensive collection of books, e-books, academic journals, electronic databases, multimedia, government documents, and archives.

Faculty and Staff

1050.30(a)(3): A) The academic preparation and experience of faculty and staff ensure that the objectives of the unit of instruction, research or public service are met. B) The academic preparation and experience of faculty and staff, as evidenced by level of degrees held, professional experience in

the field of study and demonstrated knowledge of the field, ensure that they are able to fulfill their academic responsibilities. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. C) The involvement of faculty in the unit of instruction, research or public service is sufficient to cover the various fields of knowledge encompassed by the unit, to sustain scholarship appropriate to the unit, and to assure curricular continuity and consistency in student evaluation. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

Existing faculty from the Department of Computer Science will provide instruction in the proposed program. The University has identified institutional policies that ensure faculty and staff possess the training, credentials, and other related qualifications to provide instruction. The department's current budget includes eight tenure/tenure track faculty members, two full-time instructors, and 23 part-time instructors/adjuncts. NEIU has a formal faculty evaluation process in which collective bargaining agreements define retention, tenure, and promotion processes. The University offers summer research stipends, internal research awards, travel grants, sabbatical and educational leave opportunities, and professional development to faculty. The College of Business and Technology employs four undergraduate advisors who collectively support three departments, including the Department of Computer Science. In addition, the department has one graduate advisor and shares an office administrator with other departments in the College. Undergraduate advisors will be cross trained to support the new program, assuming responsibilities such as student advising and job placement.

NEIU's diversity goals extend beyond students to encompass faculty and staff with representation from multiple racial and ethnic groups, thus aligning with its mission to serve a diverse student population and increase faculty representation from all underrepresented backgrounds. The University's hiring practices and policies are grounded in equity, utilizing a toolkit developed by the Center for Urban Education that applies socially conscious research and tools to help institutions develop equity-minded practices in faculty hiring and retention. The Center for Teaching and Learning offers professional development and a multi-year mentorship program for new faculty and academic administrators to ensure a successful transition to NEIU.

Fiscal and Personnel Resources

1050.30(a)(5): A) The financial commitments to support the unit of instruction, research or public service are sufficient to ensure that the faculty and staff and support services necessary to offer the unit of instruction, research or public service can be acquired and maintained. B) Projections of revenues necessary to support the unit of instruction, research or public service are based on supportable estimates of state appropriations, local tax support, student tuition and fees, private gifts, and/or governmental grants and contracts.

The University has sufficient faculty, staff, and instructional resources to support the proposed program. The BS in Artificial Intelligence will be supported by the Department of Computer Science's existing budget, with current faculty and staff delivering instruction and overseeing program implementation. The University has recently purchased several servers for instruction and research in areas including network security, virtualization, data science, and AI. As future upgrades to servers and laboratory computers become necessary, revenue generated through the College of Business and Technology's tuition differential will serve as a primary funding

source.

Accreditation and Licensure

1050.30(b)(3) [applicable only to units of instruction]: Appropriate steps shall be taken to assure that professional accreditation needed for licensure or entry into a profession as specified in the objectives of the unit of instruction is maintained or will be granted in a reasonable period of time.

NEIU's general-track BS in Computer Science is accredited by the Accreditation Board for Engineering and Technology (ABET). Presently, ABET's Computing Accreditation Commission has not yet adopted program-specific criteria for undergraduate artificial intelligence degrees. The computer science department will seek ABET programmatic accreditation for the proposed BS in Artificial Intelligence in the first eligible cycle after criteria are finalized.

Program Information

1050.30(b)(2)[applicable only to units of instruction]: A) The information which the institution provides for students and the public shall include the following: i) An accurate description of the unit of instruction, including its objectives, length, and residency requirements if any; ii) Schedule of tuition, fees, and all other charges and expenses necessary for completion of the unit of instruction, cancellation and refund policies; iii) Student rights and responsibilities; iv) A statement regarding the transferability of college credits, including the fact that the decision to accept transfer credits is determined by the receiving institutions; v) A statement as to how the institution will advise students on the nature of the transfer process, including the importance of consulting with institutions to which the student may seek to transfer; vi) Evidence of arrangements for the transfer of courses or credits or both to institutional counterparts, when these arrangements exist; these arrangements are also known as articulation agreements; vii) A statement of the institution's most recent graduation rates and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; and viii) Other material facts concerning the institution and the unit of instruction as are likely to affect the decision of the student to enroll. B) The information listed in subsection (b)(2)(A) shall be available to prospective students prior to enrollment and shall be included in the institution's catalog of programs.

Detailed information about the proposed program, including a description of the admission policies, institutional policies, tuition, fees, and curriculum, will be published on the University's website.

Staff Conclusion

The staff concludes that the Bachelor of Science in Artificial Intelligence proposed by Northeastern Illinois University meets the criteria to implement the Board of Higher Education Act (110 ILCS 205/et.seq.) as set forth in 23 Illinois Administrative Code, Ch. II, Section 1050.30, and the Illinois Board of Higher Education policies pertaining to assessment and accreditation or licensure.

Southern Illinois University Carbondale

Proposed Degree Title in the Region of Authorization: Bachelor of Science in Artificial Intelligence+ in the Southern Region

Projected Enrollments and Degrees

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
50	120	40

Background

Southern Illinois University Carbondale (SIUC or University) is seeking authorization to offer a Bachelor of Science in Artificial Intelligence+ (BSAIP) in the Southern region. The program will be housed in the School of Computing (SoC) within the College of Engineering, Computing, Technology, and Mathematics. The 121-credit hour program is designed to equip students with core artificial intelligence (AI) principles, algorithms, and models to apply AI techniques to diverse real-world problems. The program builds upon a foundation of traditional computing curriculum already established in the computer science program with emphasis in artificial intelligence and machine learning.

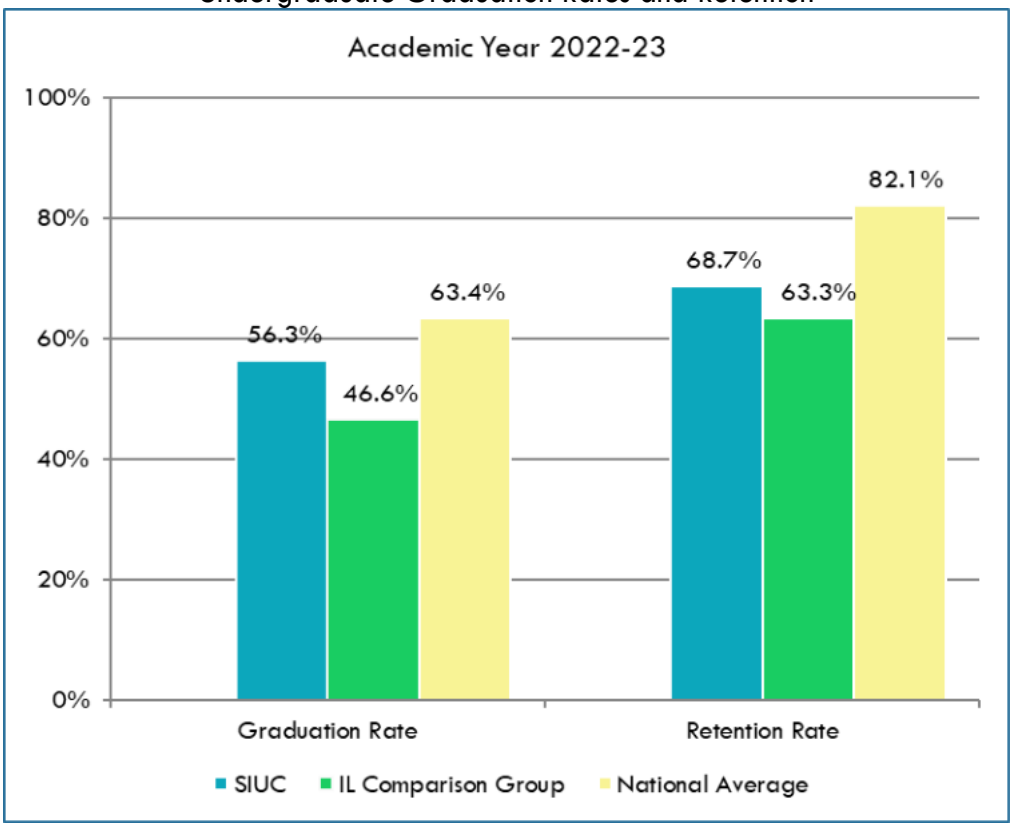
For more than a decade, students in the computer science program have had the option to complete an informal track in AI and machine learning. Through this pathway, students earn a computer science degree with a concentration in artificial intelligence and machine learning. The existing curriculum provides a solid foundation in computing, encompassing the theories, tools, and techniques through which information is generated, stored, manipulated, and communicated using computers. Central to the discipline is the study of algorithms that direct computational processes and the expression of those algorithms in the form of executable programs. The computer science degree, due to its broad nature, limits the number of elective AI and machine learning courses a student can take unless the student chooses to exceed the 120-credit hour graduation requirement. The proposed BSAIP program will allow students to engage more deeply with advanced and emerging areas of artificial intelligence, including generative AI, the design and application of AI tools, prompt engineering, large-language models, and a comprehensive study of modern machine learning methodologies. This expanded curriculum will provide a rigorous and in-depth understanding of the principles and practices that underpin contemporary AI techniques and their applications.

Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

This section includes information about institutional and student success measures for Southern Illinois University Carbondale. The institution's rates will be compared to Illinois institutions from within a select comparison group and against the national standards or averages. For a proposed undergraduate program, this section will include undergraduate graduation rates, first to second year retention rates, student loan default rates, and any applicable licensure passage rates. For a proposed graduate program, this section will primarily focus on student loan default data since this measure also includes graduate students in the calculation.

Undergraduate Graduation Rates and Retention



Source: National System for Education Statistics (NCES), US Department of Education
Note: Southern Illinois University Carbondale is in the four-year, baccalaureate inclusive Illinois comparison group. Higher percentages are positive indicators.

Undergraduate Graduation Rate

The graduation rate measures the rate at which entering freshmen graduate within 150 percent of normal program length. Data is provided for six-year graduation rates for first-time, full-time bachelor's degree-seeking students and three-year graduation rates for full-time associate degree-seeking students. The national standard for graduation rates is reported annually by the National Center for Education Statistics (NCES).

Undergraduate Retention Rate

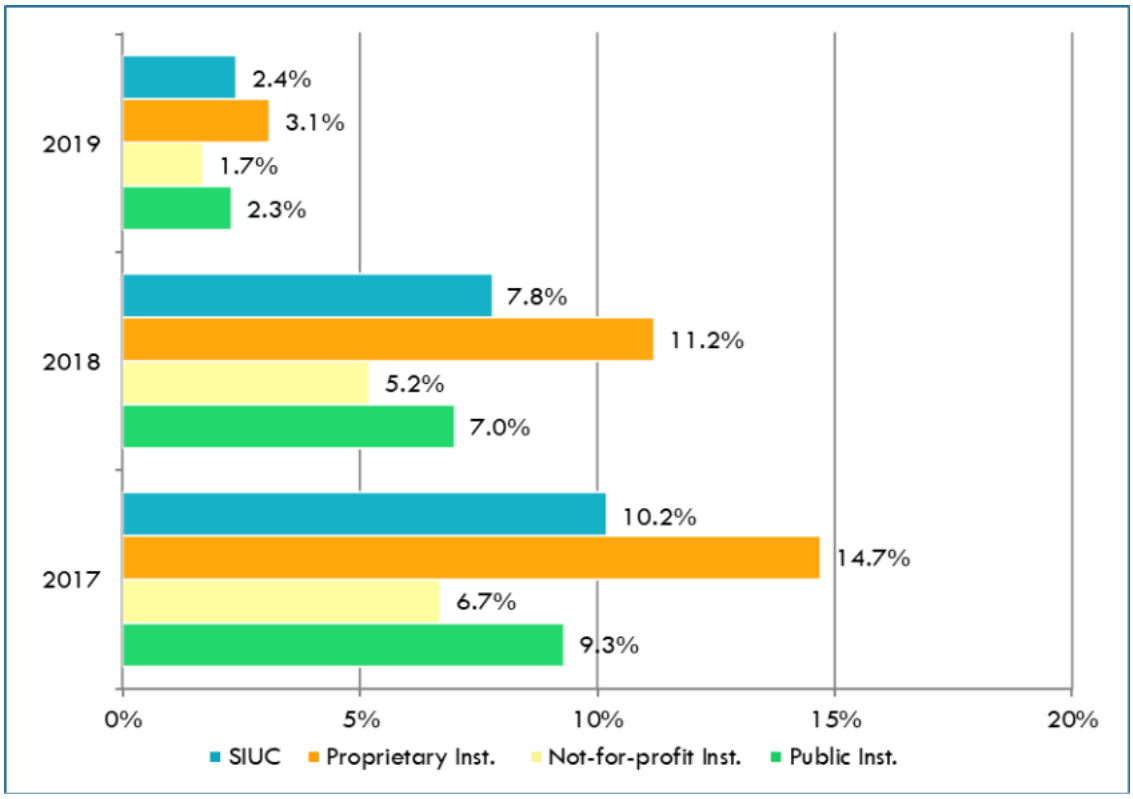
Retention rates examine the percentage of first-time degree seeking students enrolled in the fall of the prior year that are still enrolled in the fall of the current year. The national standard for retention rates is reported annually by NCES.

Undergraduate Completions per 100 FTE

Academic Year 2022-23	Southern Illinois University Carbondale	Comparable Illinois Institutions
	28	32.4

The full-time equivalent (FTE) data is a unit of measurement intended to represent one student enrolled full time for one academic year. The calculation is based upon credit/contact hours offered at an institution divided by a standard minimum (12 credit hours) full-time course load. The completions per 100 FTE data are included to provide a holistic view of completion across different student populations.

Three-Year Cohort Student Loan Default Rate



Source: National Center for Education Statistics (NCES), US Department of Education
Note: Due to the pause on federal student loan payments that began in March 2020, the cohort default rate for fiscal year 2020 is zero percent for the institution and all institution types. The national cohort default rate for fiscal year 2019 was 2.3 percent and zero percent for fiscal years 2020 and 2021. A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Loan Programs during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State of Illinois. B) The unit of instruction, research or public service meets a need that is not currently met by existing institutions and units of instruction, research or public service.

The need for AI professionals has grown substantially over the past decade. AI is no longer limited to tech companies, but has expanded to other industries (e.g., healthcare, finance, manufacturing, marketing, education, and logistics) to optimize operations, make data-driven decisions, and improve customer experiences. Employers value candidates who understand how to leverage AI tools and techniques. AI professionals have expertise in automating repetitive tasks, analyzing large datasets, creating predictive models, and building intelligent systems. This skill set drives innovation and improves efficiency, making employees more valuable to organizations. Professionals with AI skills are in high demand, which translates to higher salaries and more job opportunities. The U.S. Bureau of Labor Statistics projects steady annual growth from 2024 to 2034 in several AI-related occupations, including a 15 percent increase for computer and information systems managers, 34 percent for data scientists, and 20 percent for computer and information research scientists. Locally, the Illinois Department of Employment Security predicts a 9.23 percent growth rate for computer occupations between 2022 to 2032 with 191,574 jobs projected each year throughout the decade. The proposed program will meet employer demand by providing an ideal platform for students to gain hands-on experience with cutting-edge artificial intelligence tools and concepts, preparing graduates for lucrative AI roles in various industries.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

Southern Illinois University Carbondale's strategic plan, Imagine 2030, supports IBHE's *A Thriving Illinois: Goal 1, Equity, to close equity gaps for students who have historically been left behind*. In SIUC's strategic plan, the College of Engineering, Computing, Technology, and Mathematics aims to increase the underrepresented student population by five percent by 2030. The creation of the proposed program has the potential to attract a more diverse student body. The College's recruiting staff routinely visit high schools and community colleges throughout the Southern Illinois region and host information sessions to promote enrollment in its programs. Many of these institutions are located in counties with some of the highest poverty rates in the state and serve large, underserved populations. Recruitment efforts are also intentionally directed toward school districts with the highest minority student populations. In districts without technical course offerings, staff visit general education classrooms to reach a broad range of students; in larger districts, they specifically engage with science and mathematics classrooms to connect with students whose academic interests align with the College's programs.

The College of Engineering, Computing, Technology, and Mathematics is home to the Success in Engineering through Excellence and Diversity academic support program. Although the program, initiated in 1985, originally supported engineering students, over the years it has expanded to support all students in the College. The program was implemented to improve enrollment, retention, and graduation rates of students from underserved groups and provides a variety of support services such as academic support, tutoring, mentoring, scholarships, assistance with internship and job placement, and support from peers who share similar experiences.

Institutional strategies to recruit and retain faculty, staff, and administrators of color are central to the Diversity, Equity, and Inclusion (DEI) pillar of SIUC's strategic plan. Several key initiatives under this pillar will directly support the proposed program. These include reallocating University resources to ensure DEI is clearly prioritized, advancing economic development efforts that attract diverse businesses to the region, and recognizing faculty for cross-disciplinary collaborations. Additional strategies involve proactively developing social and community-building activities to improve faculty retention, expanding formal mentoring opportunities for new and mid-career

faculty, and offering annual workshops to prepare associate professors for promotion to full professor. The University also integrates DEI discussions into regular meetings, embeds DEI principles in faculty onboarding, and invests in sustaining a strong and inclusive organizational culture.

The proposed program will contribute to *A Thriving Illinois: Goal 2, Sustainability, to build a stronger financial future for individuals and institutions by finding ways to reduce the financial burden of education on students and their families*. Southern Illinois University Carbondale has demonstrated a strong commitment to enhancing college affordability for students by providing scholarships that target underserved populations, reallocating University resources to prioritize DEI, enhancing graduate assistantships and undergraduate research opportunities, and creating more paid and unpaid research opportunities. Each year, students are awarded over $30 million in scholarships including over $20 million in merit scholarships to undergraduates, more than $6 million to new students, and over $3.4 million in donor scholarships.

To support underserved students, SIUC offers several institutional scholarships such as the Chancellor's Scholarship, Dean's Scholarship, Saluki Maroon, Saluki Silver, Saluki Gold, and the Donor Funded Scholarship which aim to provide equitable opportunities for recipients. Given the anticipated demographic profile of students in the proposed program, many are expected to be strong candidates for these funding opportunities, thereby enhancing affordability and access.

Additionally, many students in Southern Illinois are from historically underserved backgrounds. The new BSAIP program is designed to serve students from the region by providing an accessible, career-focused pathway into the artificial intelligence field. As a result, underserved students will have greater access to institutional scholarships and financial aid, helping to reduce barriers to higher education and support their academic and professional growth.

In addressing *Goal 3 of A Thriving Illinois, Growth, to increase talent and innovation to drive economic growth,* the proposed BSAIP program is critical for fostering innovation and meeting the high demand for artificial intelligence expertise across various sectors. According to recent industry reports (e.g., the World Economic Forum, McKinsey, and LinkedIn), the annual growth rate of jobs requiring AI skills is projected at 20 to 25 percent through 2030 (compound annual growth rate or CAGR). Some niche areas such as AI ethics, generative AI, and machine learning operations are experiencing even faster growth of over 30 percent CAGR. Though not required, students will be encouraged to work in AI-related internships or field experiences, and these may count as program approved elective credits. SIUC's Office of Information Technology frequently offers such internship opportunities, along with national businesses such as the Boeing Company and Rack Bunker. Rack Bunker, a new partner with the School of Computing, is a minority-owned business and encourages minority applicants for internships and permanent jobs. Additionally, each semester, the School of Computing employs one or more student workers to help organize graduate application files and support lab and technology operations, offering students meaningful paid field experience.

Students will have the opportunity to engage in undergraduate research projects with program faculty along with other research experiences through SIUC's Student Research and Creative Activities Forum and the McNair Scholars program. The BSAIP program and the computer science program will share an advisory board comprised of industry professionals in computing-related fields. The board will meet on campus at least once per academic year and offer students the opportunity to network with AI professionals.

Comparable Programs in Illinois

According to the IBHE Program Inventory, two Illinois institutions offer baccalaureate programs in artificial intelligence (Classification of Instructional Program or CIP code 11.0102). The proposed BSAIP program at Southern Illinois University Carbondale is distinctive in its emphasis on equipping students with practical competencies to address real-world challenges through artificial intelligence. The curriculum focuses on the development, implementation, and evaluation of AI-based solutions while critically examining the ethical, social, and societal implications of these technologies. Through this program, students will gain strong technical expertise alongside essential communication and applied problem-solving skills, preparing them for careers as machine learning engineers, data scientists, and AI research scientists. Graduates will also be well positioned to pursue advanced studies in fields including science, engineering, business, healthcare, and education.

Comparable Baccalaureate Programs
Artificial Intelligence

Institution	Degree	Region	Sector
Illinois Institute of Technology	B.S. in Artificial Intelligence	Chicago	Independent, Not-for-profit
Lewis University	B.S. in Artificial Intelligence	South Metro	Independent, Not-for-profit

Source: IBHE Program Inventory

Mission and Objectives

1050.30(a)(1): A) The objectives of the unit of instruction, research or public service are consistent with the mission of the college or university. B) The objectives of the unit of instruction, research or public service are consistent with what the unit title implies.

SIUC is committed to meeting the educational, vocational, social, and personal needs of its diverse population of students and helping them fully realize their potential. The proposed program is consistent with the purpose, goals, objectives, and mission of Southern Illinois University Carbondale. The requested degree title reflects the program's objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: A) The caliber and content of the curriculum must assure that the objectives of the unit of instruction will be achieved. B) The breadth and depth of the curriculum must be consistent with what the title of the unit of instruction implies. C) The admission and graduation requirements for the unit of instruction must be consistent with the stated objectives of the unit of instruction. D) Institutions must show the capacity to develop, deliver and support academic programs. Procedures and policies that will assure the effective design, conduct and evaluation of the degree programs under the academic control of the institution must be developed. Assessment plans must demonstrate that the institution has identified clear and appropriate program and student learning goals and has defined appropriate outcomes. Appropriate data must be collected and may be requested by the Board to show the level of student learning that has occurred as a result of participation in the institution's programs of study.

1050.30(a)(2): The design, conduct and evaluation of the unit of instruction, research or public service are under the direct and continuous control of the sponsoring institution's established processes for academic planning and quality maintenance.

Admission Requirements

Incoming freshman applicants interested in applying for admission to the Bachelor of Science in Artificial Intelligence+ program must meet the general admission requirements of the University, including a cumulative high school GPA of 2.75 on a 4.0 scale, ranking in the top 10 percent of their graduating class, and a test score equivalent to a 23 ACT or 1130 SAT. Undergraduate students who do not meet one of the three criteria will be reviewed for admission under a holistic review process. Admission requirements for transfer students include at least 12 transferable semester hours or 18 quarter hours and a GPA of at least 2.0 or above on a 4.0 scale (as calculated by transfer institution grading policies). Students with less than 12 transferable hours must have a GPA of 2.0 or above and also meet freshman admission requirements.

Curriculum

The proposed 121-credit-hour BSAIP program builds on the established computing curriculum within SIUC's computer science program and adds a focused emphasis on artificial intelligence and machine learning. The program will equip students with both the technical skills and ethical considerations needed to thrive in the rapidly evolving AI field, focusing on problem-solving, critical thinking, and developing innovative solutions. Graduates of the BSAIP program will have access to job opportunities in computer and information technology across various sectors including science, engineering, business, healthcare, and education. The program will be delivered in person and requires 39 hours of core courses, 49 credit hours of program foundation and required courses, 12 credit hours of major electives, 9 credit hours of general electives, and a minimum of 12 credit hours of minor courses.

The School of Computing offers a tutoring center in which teaching assistants meet with students during their scheduled office hours to provide academic assistance with assignments. SIUC also offers Saluki Cares, a student retention initiative that connects students with academic resources, counseling services, and financial aid support. Another program, the First-Year Experience, helps new students adjust to college life through mentorship, academic workshops, and structured advising.

Assessment of Student Learning

The proposed program will adopt the Accreditation Board for Engineering and Technology's (ABET) student outcomes which describe the knowledge, skills, and behaviors that students are expected to acquire as they progress through the program. Project/exam rubrics and other direct and indirect assessment tools will be utilized to evaluate the attainment of student learning outcomes. Course-level assessment will occur each semester, incorporating both instructor and student evaluations. The results of these evaluations will be systematically utilized as input for the continuous improvement of the BSAIP program.

Program Assessment

The proposed program will utilize alumni/employer surveys and retention/graduation data for program assessment and continuous improvement. The School's Assessment Committee is responsible for gathering and sharing assessment results with program faculty. Each year, faculty review assessment results and make changes to course learning objectives, content, learning outcomes, and teaching approaches to improve student learning. Assessment results will be provided annually to the Office of the Associate Provost for Academic Programs through the annual assessment questionnaire. Information will include learning outcomes, assessment activities, the assessment data used to identify necessary program improvements, and the documented impact of those improvements on student achievement.

Facilities (space, equipment, instructional materials)

1050.30(a)(4): A) Facilities, equipment and instructional resources (e.g., laboratory supplies and equipment, instructional materials, computational equipment) necessary to support the high-quality academic work in the unit of instruction, research or public service are available and maintained. B) Clinical sites necessary to meet the objectives of the unit of instruction, research or public service. C) Library holdings and acquisitions, owned or contracted for by the institution, that are necessary to support high quality instruction and scholarship in the unit of instruction, research and public service, are conveniently available and accessible, and can be maintained.

The University's existing facilities are adequate to support the proposed BSAIP program. The School of Computing resides primarily in the Engineering A building. The facilities include a conference room, office space, research laboratories, and computer labs on the third and fourth floors. In addition to a number of traditional classrooms and lecture halls, there are several smart classrooms in different buildings throughout campus equipped with LCD projectors, podiums, sound systems, computers, document cameras, DVDs/VCRs, and smart boards. These high-tech classrooms are frequently used for interactive video classes and video conferencing. Training is available through the Center for Teaching Excellence to faculty and staff.

Southern Illinois University's Morris Library contains a wide array of resources to support the proposed program with more than 2.6 million volumes, 200,000 e-books, 50,000 periodicals and serials, and over 3.6 million microform units. The library subscribes to hundreds of journals in computer science and over 330,000 physical science journals. The library provides electronic access to databases such as the Web of Science, Computers and Applied Sciences Complete, and ScienceDirect. The science librarian is designated to serve the School of Computing for reference and research assistance, consultation, and library instruction. A separate collection development librarian maintains serials, journals, and electronic subscriptions.

Faculty and Staff

1050.30(a)(3): A) The academic preparation and experience of faculty and staff ensure that the objectives of the unit of instruction, research or public service are met. B) The academic preparation and experience of faculty and staff, as evidenced by level of degrees held, professional experience in the field of study and demonstrated knowledge of the field, ensure that they are able to fulfill their academic responsibilities. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. C) The involvement of faculty in the unit of instruction, research or public service is sufficient to cover the various fields of knowledge encompassed by the unit, to sustain scholarship appropriate to the unit, and to assure curricular continuity and consistency in student evaluation. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

The School of Computing has adequate faculty and staff to support the BSAIP program. Existing computer science faculty will provide instruction. Additional tenure-track faculty members may be hired as needed. All computer science faculty are active researchers and educators in their specialized areas. The University has identified institutional policies that ensure faculty and staff possess the appropriate training, credentials, and other related qualifications to teach in the proposed program. SIUC has a formal evaluation process guided by institutional policies and labor

agreements to support ongoing faculty development. Other personnel that will provide operational and administrative support for the proposed program include an office administrator, graduate program coordinator, academic advisor, and a computer systems architecture specialist. The advising and recruiting staff in the College of Engineering, Computing, Technology, and Mathematics will assist students with program admission and course scheduling. The staff will provide specialized academic support, career guidance, and degree planning to support student success.

SIUC is committed to promoting diversity in the recruitment, hiring, and retention of faculty and staff. A range of programs are offered to enhance cultural competence and promote an inclusive campus climate, including cultural competency workshops, structured mentorship opportunities, and diversity and equity training. Collectively, these efforts reinforce SIUC's mission of cultivating a diverse, equitable, and inclusive academic community.

Fiscal and Personnel Resources

1050.30(a)(5): A) The financial commitments to support the unit of instruction, research or public service are sufficient to ensure that the faculty and staff and support services necessary to offer the unit of instruction, research or public service can be acquired and maintained. B) Projections of revenues necessary to support the unit of instruction, research or public service are based on supportable estimates of state appropriations, local tax support, student tuition and fees, private gifts, and/or governmental grants and contracts.

The University has adequate faculty, staff, and other instructional resources to administer the proposed program. The program will utilize many courses already offered at SIUC and will be supported by existing faculty and staff. The program will share administrative resources with the computer science program in the School of Computing.

Accreditation and Licensure

1050.30(b)(3) [applicable only to units of instruction]: Appropriate steps shall be taken to assure that professional accreditation needed for licensure or entry into a profession as specified in the objectives of the unit of instruction is maintained or will be granted in a reasonable period of time.

Currently, ABET's Computing Accreditation Commission has not yet adopted program-specific criteria for undergraduate artificial intelligence degrees. The proposed program will seek ABET accreditation when eligible.

Program Information

1050.30(b)(2) [applicable only to units of instruction]: A) The information which the institution provides for students and the public shall include the following: i) An accurate description of the unit of instruction, including its objectives, length, and residency requirements if any; ii) Schedule of tuition, fees, and all other charges and expenses necessary for completion of the unit of instruction, cancellation and refund policies; iii) Student rights and responsibilities; iv) A statement regarding the transferability of college credits, including the fact that the decision to accept transfer credits is determined by the receiving institutions; v) A statement as to how the institution will advise students on the nature of the transfer process, including the importance of consulting with institutions to which the student may seek to transfer; vi) Evidence of arrangements for the transfer of courses or credits or both to institutional counterparts, when these arrangements exist; these arrangements are also known as articulation agreements; vii) A statement of the institution's most recent graduation rates and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; and viii) Other material facts concerning the institution and the unit of instruction as are likely to affect the

decision of the student to enroll. B) The information listed in subsection (b)(2)(A) shall be available to prospective students prior to enrollment and shall be included in the institution's catalog of programs.

Detailed information about the proposed program, including a description of the admission policies, institutional policies, tuition, fees, and curriculum, will be published on the University's website.

Staff Conclusion

The staff concludes that the Bachelor of Science in Artificial Intelligence+ proposed by Southern Illinois University Carbondale meets the criteria to implement the Board of Higher Education Act (110 ILCS 205/et.seq.) as set forth in 23 Illinois Administrative Code, Ch. II, Section 1050.30, and the Illinois Board of Higher Education policies pertaining to assessment and accreditation or licensure.

Proposed Degree Title in the Region of Authorization: Master of Science in Population Science in the Central Region

Projected Enrollments and Degrees

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
10	25	20

Background

Southern Illinois University Carbondale (SIUC or University) is seeking authorization to offer a Master of Science in Population Science (MSPS) in the Central region. The program will be housed in the Department of Population Science and Policy (PSP) within the SIU School of Medicine (SIUSOM). Population science is an interdisciplinary field with a focus on understanding the complexities of health and disease in diverse populations and developing strategies to improve health outcomes on a larger scale. Key areas of population science include epidemiology, biostatistics, environmental health, health services research, and social and behavioral sciences. The 30-credit hour, hybrid MSPS program focuses on the biological, behavioral, and sociocultural determinants of health and health behavior, and the interventions and policies aimed at improving community and population health. The curriculum includes instruction in behavioral sciences, public health practice and policy, human services, and research methods.

The Department of Population Science and Policy (PSP) was established at the SIU School of Medicine in 2018 to develop curriculum that prepares future physicians to understand population health principles, assess regional health needs through research, design community-based interventions that improve health outcomes, and create policies that support sustainable change throughout Central and Southern Illinois. PSP also houses an established academic program that bridges clinical practice and basic science: the Doctor of Medicine (MD) and Master of Public Health (MPH) concurrent degree. This program admitted its first student in fall 2012 with enrollment intentionally capped at three students per year until 2023 when the limit was expanded to six students. The MD/MPH program significantly informed the development of the proposed MSPS degree. The MPH program, located in Carbondale and accredited under the Council on Education for Public Health standards, focuses primarily on community health education. However, feedback from current and former students indicates a strong desire for a curriculum more closely aligned with medical training and interests, including epidemiology, study design and analysis, biostatistics and clinical informatics, and health disparities.

SIUSOM will leverage administrative resources at SIUC to support the proposed program along with faculty from Southern Illinois University Edwardsville (SIUE), SIUC, and SIUSOM. While multiple courses will be developed specifically for the MSPS program, some courses currently offered by SIUC (School of Human Sciences) and SIUE (Department of Applied Health) will be included.

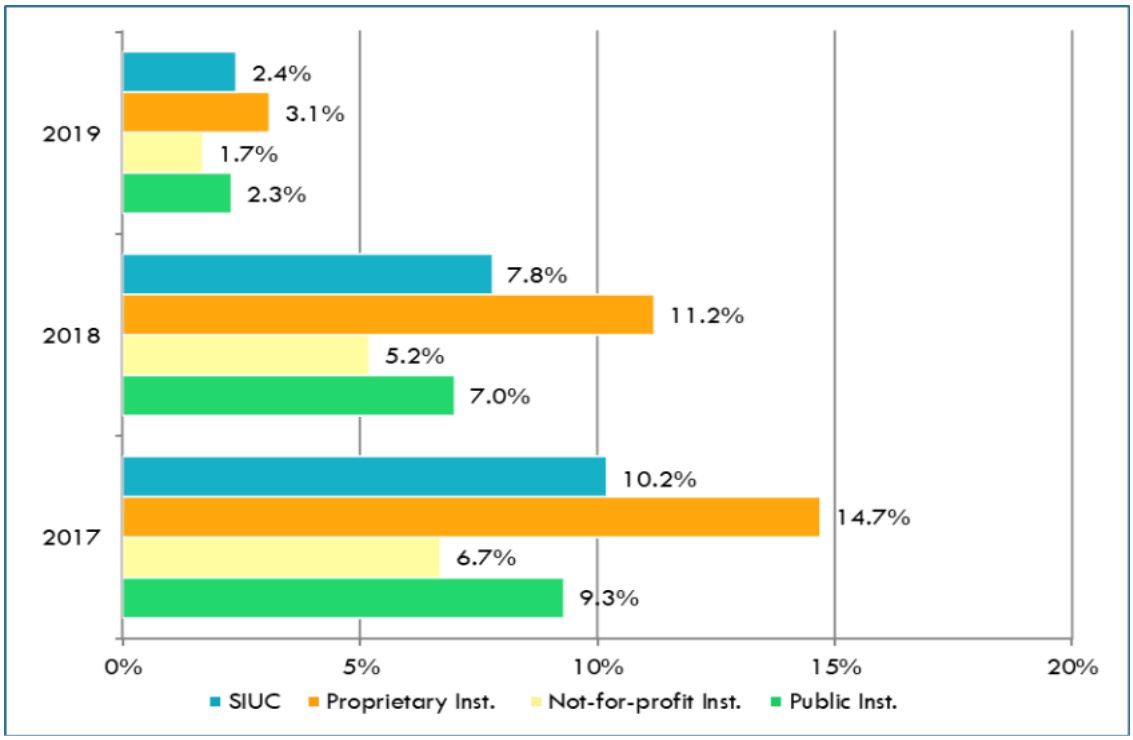
Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and

certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

This section includes information about institutional and student success measures for Southern Illinois University Carbondale. The institution's rates will be compared to Illinois institutions from within a select comparison group and against the national standards or averages. For a proposed undergraduate program, this section will include undergraduate graduation rates, first to second year retention rates, student loan default rates, and any applicable licensure passage rates. For a proposed graduate program, this section will primarily focus on student loan default data since this measure also includes graduate students in the calculation.

Three-Year Cohort Student Loan Default Rate



Source: National Center for Education Statistics (NCES), US Department of Education
Note: Due to the pause on federal student loan payments that began in March 2020, the cohort default rate for fiscal year 2020 is zero percent for the institution and all institution types. The national cohort default rate for fiscal year 2019 was 2.3 percent and zero percent for fiscal years 2020 and 2021. A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Loan Programs during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State of Illinois. B) The unit of instruction, research or public service meets a need that is not currently met by existing institutions and units of

instruction, research or public service.

According to the Centers for Disease Control and Prevention (CDC) Foundation, clinical medicine focuses on the treatment of illness or injury while public health is the science of protecting and improving the health of people and their communities. Population science is often understood as an intersection between clinical and public health. The field focuses on the determinants of health and their differential distribution across population groups with similar characteristics (e.g., race, sexual orientation, and geographic location). Population science relies on broad collaboration among patients, community organizations, healthcare providers, and researchers to investigate and address health disparities. By examining demographics, behaviors, genetics, and social determinants of health, population scientists generate evidence-based policies and interventions that reduce disease, advance equity, guide resource allocation, and support the development of sustainable, healthy communities. Central to its value is a shift from individual treatment to proactive, community-wide strategies that improve public health and foster economic and social well-being. The proposed program at SIUC will integrate clinical medicine, public health, epidemiology, and population health to prevent, reduce, and manage morbidity and mortality.

The demand for public health professionals has grown significantly over the past decade. Research from the de Beaumont Foundation shows that the public health workforce declined by more than 15 percent between 2008 and 2019, and 47 percent of current workers expect to retire within five years. Stagnant funding and slow hiring processes have further limited the ability of health departments to attract the specialized and diverse talent needed to serve their communities effectively. As a result, the de Beaumont Foundation estimates that an 80 percent increase in the public health workforce is necessary to meet adequate service levels. Similarly, the U.S. Bureau of Labor Statistics (BLS) projects that employment for medical and health services managers will increase by 23 percent from 2024 to 2034, with approximately 62,100 job openings each year.

Training in epidemiology and health services research is a significant component of the proposed MSPS degree. According to BLS projections, epidemiologists are one of the fastest growing occupations with an expected 16 percent increase from 2024 to 2034, with similar growth expected for medical scientists at nine percent. In addition, BLS reports that job opportunities for health information technologists and medical registrars are expected to grow 15 percent by 2034, creating about 3,200 job openings per year. Locally, the Illinois Department of Employment Security predicts job growth for epidemiologists at 14.77 percent and medical scientists at 7.66 percent from 2022 to 2032.

The proposed program will address workforce needs by integrating knowledge across multiple disciplines, equipping students with the skills to apply population-based approaches in a wide range of professional settings. Graduates will be prepared for roles in population health (local and state public health agencies), health administration (hospitals and clinics), research (universities and laboratories), and policy development.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

Supportive of IBHE's *A Thriving Illinois: Goal 1, Equity, to close equity gaps for students who have historically been left behind,* the proposed program is supported by institutional initiatives in SIUC's strategic plan, Imagine 2030, for attracting and recruiting a diverse group of students. SIU School of Medicine has succeeded in recruiting, retaining, and graduating minority students due to its long-term focus on supporting a diverse student body and its investment of resources and

strategies to attract, retain, and serve minority students. SIUSOM has advanced its commitment to cultivating a diverse student body through several important initiatives such as the Medical/Dental Preparatory Program (MEDPREP), extensive academic advising and remediation services offered to all medical students, targeted scholarships for underrepresented students, and dedicated efforts led by the Student Affairs and Equity, Diversity, and Inclusion offices to recruit, retain, and graduate a diverse student population. These initiatives remain central to SIUSOM's mission. The diversity of the medical school's faculty also reflects this commitment. SIU ranks above the 57th percentile nationally among medical schools in the proportion of faculty from African American, Hispanic, and Native American backgrounds.

The proposed program and SIUSOM are dedicated to fostering a work environment that advances the School's mission of improving the health and well-being of the communities it serves. Key priorities include building a diverse and inclusive workforce, ensuring equitable treatment for all employees, and implementing governance structures and policies that promote equity. The School's Office of Human Resources and Office of Equity, Diversity, and Inclusion lead numerous initiatives to support these goals, including strategic recruitment plans, mentoring programs, and activities designed to advance equity in hiring, tenure, and promotion.

The proposed program will contribute to *A Thriving Illinois: Goal 2, Sustainability, to build a stronger financial future for individuals and institutions by finding ways to reduce the financial burden of education on students and their families*. Southern Illinois University Carbondale has demonstrated a strong commitment to enhancing college affordability for students by providing scholarships that target underserved populations, reallocating University resources to prioritize diversity, equity, and inclusion (DEI), enhancing graduate assistantships and undergraduate research opportunities, and creating more paid and unpaid research opportunities. Each year, students are awarded over $30 million in scholarships. By offering the MSPS degree in hybrid format, the program will appeal to a much broader demographic (including medical students, fellows, physicians, nurses, and other public health professionals) seeking to improve the health of diverse populations. Also, as the only program in the state with a focus on the behavioral aspects of health, a gap in the educational continuum will be addressed.

In addressing *Goal 3 of A Thriving Illinois, Growth, to increase talent and innovation to drive economic growth,* the proposed MSPS program offers a unique opportunity to integrate population science and medicine within a single school, creating an academic environment specifically designed to advance health and wellness among rural communities. SIUSOM is the only medical school with a specific focus on addressing the healthcare needs of rural Southern counties in Illinois. SIUSOM has also developed a portfolio of research, collaborations, and expertise on the application of population science principles.

MSPS students will have the opportunity to participate in internships, apprenticeships, and other field experiences. In addition, the proposed program plans to organize an advisory board comprised of faculty across a variety of disciplines, including public health, medicine, and epidemiology. The board will meet on a regular basis to ensure program content aligns with workforce needs.

Comparable Programs in Illinois

According to the IBHE Program Inventory, there are no comparable population science graduate programs in Illinois. The only programs listed under the Classification of Instructional

Program or CIP code 51.2212 are the Master of Science in Human Science at SIUC, an interdisciplinary program preparing students for careers in exercise science, nutrition, recreation, and sport professions, and the Bachelor of Science in Health Sciences at Methodist College, which focuses on leadership and management within health systems for students from allied health backgrounds. The proposed MSPS program is distinct in its emphasis on behaviors and interventions influencing health and healthcare outcomes. Furthermore, the program is affiliated with SIUSOM, offering courses and research experiences specific to rural health.

The COVID-19 pandemic brought unprecedented public attention to population health, highlighting the critical need for accurate data to guide policy decisions and for health professionals who understand and apply population science principles in both clinical practice and public health settings. The proposed MSPS program will help meet this need by increasing the number of professionals capable of collecting, analyzing, and applying population-level data across diverse environments, and by preparing administrators and clinicians to incorporate a population science perspective into their work. The program will also support individuals already employed in health-related fields who seek to expand their skills and knowledge.

The demand for population science professionals is at an all-time high and is expected to grow rapidly in the coming years. High-quality educational programs are essential to support this expanding workforce, and the proposed MSPS program will help address this gap. In addition, incentives such as SIUC's tuition assistance programs for Illinois residents and children of SIUC alumni (e.g., the Saluki Commitment and legacy tuition rates), combined with strong employment prospects in population science, are likely to attract students to enroll in the proposed program.

Mission and Objectives

1050.30(a)(1): A) The objectives of the unit of instruction, research or public service are consistent with the mission of the college or university. B) The objectives of the unit of instruction, research or public service are consistent with what the unit title implies.

The mission of SIUSOM is to optimize the health of the people of Central and Southern Illinois through education, research, patient care, and community service. The School is deeply committed to developing a medical and health-focused workforce equipped to improve the well-being of the diverse communities it serves. By offering the Master of Science in Population Science program, SIUSOM will expand its educational portfolio and prepare graduates with the skills needed to advance health outcomes among rural and underserved populations. The program is consistent with the purpose, goals, objectives, and mission of Southern Illinois University Carbondale. The requested degree title reflects the program's objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: A) The caliber and content of the curriculum must assure that the objectives of the unit of instruction will be achieved. B) The breadth and depth of the curriculum must be consistent with what the title of the unit of instruction implies. C) The admission and graduation requirements for the unit of instruction must be consistent with the stated objectives of the unit of instruction. D) Institutions must show the capacity to develop, deliver and support academic programs. Procedures and policies that will assure the effective design, conduct and evaluation of the degree programs under the academic control of the institution must be developed. Assessment plans must demonstrate that the institution has identified clear and appropriate program and student learning goals and has defined appropriate outcomes. Appropriate data must be collected and may be requested by the Board to show the level of student learning that has occurred as a result of participation in the institution's programs of study.

1050.30(a)(2): The design, conduct and evaluation of the unit of instruction, research or public service are under the direct and continuous control of the sponsoring institution's established processes for academic planning and quality maintenance.

Admission Requirements

Applicants interested in the Master of Science in Population Science program must meet the minimum admission requirements of the SIU School of Medicine including a 2.7 undergraduate GPA on a 4.0 scale and a bachelor's degree in public health, biology, clinical and translational science, statistics, epidemiology, or another relevant discipline from an accredited U.S. institution or a recognized foreign university. Individuals with professional degrees including medicine, nursing, and other healthcare degrees will also be considered. Applicants must submit official transcripts from all degree-granting institutions; a resume/curriculum vitae detailing educational history, employment, volunteer service, and research experience; a written statement of purpose; and two letters of recommendation.

Curriculum

The Master of Science in Population Science is a one-year hybrid, interdisciplinary program that integrates public health, epidemiology, clinical and translational sciences, population studies, and other related fields. For successful completion and degree conferral, students must complete a total of 30 credit hours, including 15 credit hours of required coursework and a minimum of 15 credit hours of electives. The program will be highly interactive focusing on the biological, behavioral, and sociocultural determinants of health and health behavior, and the interventions and policies aimed at improving community and population health. The curriculum includes instruction in behavioral sciences, public health practice and policy, human services, and research methods.

SIUC offers a wide range of wraparound services to support students. The First Saluki Center connects first-generation students with academic resources, social and emotional support, financial literacy, opportunities to get involved on campus and in the community, and career preparedness. Exploratory Student Advisement supports students as they explore academic and career options while fulfilling core curriculum requirements. Additionally, the Center for Learning Support Services provides tutoring, academic coaching, and test preparation workshops. Counseling and Psychological Services offers mental health-related services to facilitate students' adjustment to college and their personal and psychological growth in becoming high-functioning and socially responsible adults.

Assessment of Student Learning

The goal of the proposed MSPS program is to prepare students to contribute to the field of population health through research, policy, and practical implementation. Student learning outcomes will be assessed through multiple direct and indirect measures such as course assignments, presentations, group projects, and class participation. Knowledge acquisition and students' ability to understand key concepts will be assessed through quizzes, mid-term exams, and final exams. Students will also engage in discussions on various topics and review scientific manuscripts regularly throughout the program. Instructors will use a course-specific rubric to document student involvement and assignment completion. Exit interviews and surveys will be administered to allow students to provide feedback on the program. Alumni will complete an annual survey for the first five years after graduation to track their professional development and assess the program's relevance to their career goals. The program will monitor graduate employment outcomes and analyze job placement data to evaluate overall program effectiveness.

Program Assessment

Multiple assessment methods will be utilized for program evaluation to improve student learning, including online engagement and in-class participation, quality of posts, student contributions to coursework and discussions, and exam results. Indirect assessment will include survey data from alumni, faculty, employers, and graduate schools. Based on assessment results, PSP will identify trends in student performance and determine whether modifications to the curriculum or instructional methods are needed. Results will also be compared against national benchmarks and similar programs across the country. This continuous evaluation process will support ongoing improvement of the MSPS program.

Facilities (space, equipment, instructional materials)

1050.30(a)(4): A) Facilities, equipment and instructional resources (e.g., laboratory supplies and equipment, instructional materials, computational equipment) necessary to support the high-quality academic work in the unit of instruction, research or public service are available and maintained. B) Clinical sites necessary to meet the objectives of the unit of instruction, research or public service. C) Library holdings and acquisitions, owned or contracted for by the institution, that are necessary to support high quality instruction and scholarship in the unit of instruction, research and public service, are conveniently available and accessible, and can be maintained.

The University's existing facilities, including classrooms and offices, are adequate to support the proposed MSPS hybrid program. All faculty will have access to computing and office resources. A designated classroom for in-person classes, presentations, and discussions will be available for MSPS students and other courses offered by PSP faculty. SIU's Desire 2 Learn (D2L) and Blackboard learning management systems will be utilized for course delivery to allow faculty and students to readily access course materials.

Southern Illinois University's Morris Library contains a wide array of resources to support the proposed program, with more than 2.6 million volumes, 200,000 e-books, 43,000 periodicals and serials, and over 3.6 million microform units. SIUSOM's Medical Library also offers electronic access to a comprehensive database of journals and other academic materials. MSPS students will have access to relevant databases including PubMed, CINAHL, and EBSCOhost. Reference librarians are available in person, by phone, and via chat service. It is anticipated that a portion of the tuition revenue generated by the MSPS program will be used for library resources to support the MSPS program when fully implemented.

Faculty and Staff

1050.30(a)(3): A) The academic preparation and experience of faculty and staff ensure that the objectives of the unit of instruction, research or public service are met. B) The academic preparation and experience of faculty and staff, as evidenced by level of degrees held, professional experience in the field of study and demonstrated knowledge of the field, ensure that they are able to fulfill their academic responsibilities. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. C) The involvement of faculty in the unit of instruction, research or public service is sufficient to cover the various fields of knowledge encompassed by the unit, to sustain scholarship appropriate to the unit, and to assure curricular continuity and consistency in student evaluation. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and

technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

Existing faculty in the Department of Population Science and Policy will primarily provide instruction in the proposed program. In addition, two faculty members will be hired to deliver specialized course content in collaboration with existing PSP faculty. The University has established policies to ensure that all faculty and staff possess the appropriate training, credentials, and qualifications to teach in the MSPS program. SIUC has a formal evaluation process guided by institutional policies and labor agreements to support ongoing faculty development. Since the program will be offered in a hybrid format, faculty will receive instructional support from the Center for Teaching Excellence, which provides training and consultation for both face-to-face and online teaching. The MSPS program will have a designated graduate education program director who will oversee the program. PSP also has a program coordinator who will be involved in course coordination with faculty and students.

Institutional strategies to recruit and retain faculty, staff, and administrators of color are central to the DEI pillar of SIUC's strategic plan. Several key initiatives under this pillar will directly support the proposed program. These include reallocating University resources to ensure DEI is clearly prioritized; advancing economic development efforts that attract diverse businesses to the region; and recognizing faculty for cross-disciplinary collaborations. Additional strategies involve proactively developing social and community-building activities to improve faculty retention; expanding formal mentoring opportunities for new and mid-career faculty; and offering annual workshops to prepare associate professors for promotion to full professor. The University also integrates DEI discussions into regular meetings, embeds DEI principles in faculty onboarding, and invests in sustaining a strong and inclusive organizational culture.

Fiscal and Personnel Resources

1050.30(a)(5): A) The financial commitments to support the unit of instruction, research or public service are sufficient to ensure that the faculty and staff and support services necessary to offer the unit of instruction, research or public service can be acquired and maintained. B) Projections of revenues necessary to support the unit of instruction, research or public service are based on supportable estimates of state appropriations, local tax support, student tuition and fees, private gifts, and/or governmental grants and contracts.

The University has adequate faculty, staff, and other instructional resources to administer the proposed program. The program will mostly be supported by existing PSP faculty and staff. The program will share administrative resources with existing programs in the Department of Population Science and Policy.

Accreditation and Licensure

1050.30(b)(3)[applicable only to units of instruction]: Appropriate steps shall be taken to assure that professional accreditation needed for licensure or entry into a profession as specified in the objectives of the unit of instruction is maintained or will be granted in a reasonable period of time.

There is no specialized accreditation or licensure required for the proposed program.

Program Information

1050.30(b)(2) [applicable only to units of instruction]: A) The information which the institution provides for students and the public shall include the following: i) An accurate description of the unit of instruction, including its objectives, length, and residency requirements if any; ii) Schedule of tuition,

fees, and all other charges and expenses necessary for completion of the unit of instruction, cancellation and refund policies; iii) Student rights and responsibilities; iv) A statement regarding the transferability of college credits, including the fact that the decision to accept transfer credits is determined by the receiving institutions; v) A statement as to how the institution will advise students on the nature of the transfer process, including the importance of consulting with institutions to which the student may seek to transfer; vi) Evidence of arrangements for the transfer of courses or credits or both to institutional counterparts, when these arrangements exist; these arrangements are also known as articulation agreements; vii) A statement of the institution's most recent graduation rates and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; and viii) Other material facts concerning the institution and the unit of instruction as are likely to affect the decision of the student to enroll. B) The information listed in subsection (b)(2)(A) shall be available to prospective students prior to enrollment and shall be included in the institution's catalog of programs.

Detailed information about the proposed program, including a description of the admission policies, institutional policies, tuition, fees, and curriculum, will be published on the University's website.

Staff Conclusion

The staff concludes that the Master of Science in Population Science proposed by Southern Illinois University Carbondale meets the criteria to implement the Board of Higher Education Act (110 ILCS 205/et.seq.) as set forth in 23 Illinois Administrative Code, Ch. II, Section 1050.30, and the Illinois Board of Higher Education policies pertaining to assessment and accreditation or licensure.