School of Science • The College of New Jersey

Strategic Map, 2015-2018

Building Academically Excellent Programs That Will Garner National Recognition

2018–2019 OUTCOMES

Strategic Priority	Strategic Objective	Projects for 2018-2019	Major Outcomes
All Priorities and Objectives		Continue implementation of recommendations from SoS Task Force on Fostering Student Success, begin implementation of HHMI Inclusive Excellence work, and fully integrate these efforts.	Held three interactive discussions at SoS meetings, two SoS brown bag topical discussion sessions, and hosted the National Academies' week-long Summer Institute on Scientific Teaching at TCNJ, with over 50 faculty attendees. Departmental-focused efforts were also held; For example: (a) Physics held a student-led “inclusivity workshop" to provide a safe space to discuss the gender and racial gaps that exist in the field; 50+ students/faculty attended; (b) Computer Science partnered with TCNJ's Student Affairs Division to hold a series of curricular-based conversations about gender equity, inclusivity, mental health and wellness, and student culture.
		Conduct review and update of SoS Strategic Map.	Created a Task Force comprised of all SoS stakeholder groups; Based on consultative and iterative dialogue and feedback from the SoS community, the SoS Strategic Map was updated for the 2019-2022 time frame.

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Enhancing Scholarship Broadly Across the SoS	Internal Support for Faculty Research and for Professional Travel for Faculty and Students	Continued support of SoS mini-grant program for faculty research.	Two proposals were received and one was funded.
		Continued support of SoS external scholarly mentor program, scholarly writing groups, and catalysis conversations.	No external scholarly mentor proposals were submitted; One catalysis conversation proposal was submitted and funded; Two weekly SoS-wide scholarly writing groups were supported.
		Continued support of travel to scholarly conferences at a high level.	Approximately 104 faculty and staff trips and 57 student trips were supported; Approximately 147 scholarly conferences were attended.
		Continued administrative support for post-award grant management in the SoS.	Streamlined budget management processes with a variety of TCNJ offices, particularly for highly active summer season of faculty and student research; Enhanced communications with faculty PIs of external grants.
	Increased Faculty Engagement and Development in Grant Writing	Increased faculty interest and ease with grant submissions via support sessions (brown bag lunches, workshops, planning sessions, writing groups) and topic-specific, on-campus support.	Held seven on-campus, SoS grant-writing workshops, two writing groups that met weekly, and two writing retreats over the winter break; 44 extramural proposals/pre-proposals were submitted from 42 PIs/Co-PIs/Senior Personnel, representing all SoS departments; The funding rate was 56% for proposals with decisions, and over $2.2 million in external grant funding was awarded.
		Continued support of trips to funding agencies and grant-related conferences with a focus on increasing participation within all departments.	Four faculty and staff members attended the CUR Dialogues meeting on grant opportunities; One staff member attended several NSF, NIH, and GRC grant proposal development and management conferences.
	Enhanced Integration of Research and other Deeply Engaging Pedagogies throughout the Curriculum for Majors and Non-majors	Continue implementation of recommendations from SoS Task Force on Fostering Student Success, begin implementation of HHMI Inclusive Excellence work, and fully integrate these efforts.	Held three interactive discussions at SoS meetings, two SoS brown bag topical discussion sessions, and hosted the National Academies' week-long Summer Institute on Scientific Teaching at TCNJ, with over 50 faculty attendees.
		Continued support of travel to conferences/workshops related to pedagogy, teaching and learning, high-impact practices, scholarly practice, and outcomes assessment.	Supported faculty and staff travel to several key meetings, such as: Understanding Interventions that Broaden Participation in Science, CUR Dialogues, NSF and NIH grant proposal development and management conferences, SIGCSE, and ACS workshops; TCNJ and the SoS hosted the Conference on Undergraduate Women in Physics for the Mid-Atlantic states and CUR Transformations meeting for their major national curricular project.

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Deepening Student Engagement	Broadening Participation in Student Research, Internships, Capstones, and Academic Clubs	Continue and enhance coordinated academic programming for SoS Gateway to Research Careers in Science program, and re-structure the program to accommodate entry for current students.	Held a series of six coordinated Gateway workshops and events; Held two planning meetings to discuss restructuring the Gateway program, with several options being considered during the 2019-2020 academic year.
		Continue implementation of recommendations from SoS Task Force on Fostering Student Success, begin implementation of HHMI Inclusive Excellence work, and fully integrate these efforts.	Used regularly scheduled SoS meetings for three interactive conversations and to share examples of successful practices occurring across the SoS; Held two SoS brown bag topical discussion sessions; Hosted the National Academies' week-long Summer Institute on Scientific Teaching at TCNJ, with over 50 faculty attendees.
		Support teams of faculty and staff members to attend conferences and workshops focused on student success (e.g., AAC&U, Understanding Interventions).	Teams and individuals attended and presented at the Understanding Interventions conference (5 faculty), HHMI annual meeting (2 faculty), AAC&U STEM conference (1 faculty).
	Enhanced Student-Faculty Engagement through Developmental Advising and Mentoring	Offer facilitated discussion sessions for faculty and staff on transitions, equity, inclusion, and diversity.	Held two SoS-focused brown bag discussions; Used regularly scheduled SoS meetings for interactive conversations.
		Develop and implement an SoS Academic Advising Guide.	Development of document initiated and will be completed during 2019-2020.
		Increase awareness, number of proposals, and on-campus support for student applications to the National Science Foundation's Graduate Research Fellowship Program (NSF-GRF).	Offered an increased number of information sessions, workshops, and one-on-one proposal reviews; Two SoS senior and two alums were competitively awarded NSF Graduate Research Fellowships, and three seniors and three alums received honorable mentions; Continued to provide support for Barry Goldwater and Fulbright applicants; Two SoS students received Goldwaters.
	Enhanced Integration of Research and other Deeply Engaging Pedagogies throughout the Curriculum for Majors and Non-majors	Continue implementation of recommendations from SoS Task Force on Fostering Student Success, begin implementation of HHMI Inclusive Excellence work, and fully integrate these efforts.	Held a series of six coordinated Gateway workshops and events; Held two planning meetings to discuss restructuring of the Gateway program.
		Continued support of travel to conferences/workshops related to pedagogy, teaching and learning, high-impact practices, scholarly practice, and outcomes assessment.	Supported faculty and staff travel to several key meetings, such as: Understanding Interventions that Broaden Participation in Science, CUR Dialogues, NSF and NIH grant proposal development and management conferences, SIGCSE, and ACS workshops; TCNJ and the SoS hosted the Conference on Undergraduate Women in Physics for the Mid-Atlantic and CUR Transformations meeting for their major national curricular project.

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Building a Robust Intellectual Community	Recruitment and Development of Diverse and Intellectually Courageous Students, Staff, and Faculty	Prepare advertisements, evaluation criteria, and interview schedules for faculty and staff positions that are well-aligned with the teacher-scholar model in a primarily undergraduate, residential and inclusive institution and our mission.	All full-time faculty ads now require applicants to submit a "Statement of commitment to inclusivity and diversity;" Piloted and scaled-up new search approach – prior to reviewing candidate materials search committees have facilitated discussions about biases during recruitment; Hired four tenure-line faculty members, seven visiting faculty members, and one staff member.
		Continue to enhance department-level and school-level recruitment efforts for prospective students.	Revised and enhanced all of our departmental recruitment presentations and open house events; Enhanced participation at open house events; These efforts had a very positive impact on yield.
		Identify and submit grant proposals focused on supporting students traditionally underrepresented in the SoS; Implement funded grants.	Received APS-NSF grant to host the Conference on Undergraduate Women in Physics for the Mid-Atlantic states, and successfully held the conference with over 300 attendees; Submitted a new NSF-IUSE proposal (pending), a pre-proposal to the Clare Boothe Luce Program (invited for full proposal submission); Continued to successfully implement our four NSF-IUSE, NSF-S-STEM, and HHMI grants.
	Deepened Engagement in Events Where Teaching and Scholarship are Shared within the SoS and Campus Communities	Continue to enhance SoS and departmental colloquia series.	Held 36 colloquia, including disciplinary and interdisciplinary presentations with a broad range of external and SoS faculty speakers.
		Broaden participation at colloquia both inside and outside of their home department.	Colloquia and lecture presentations were well-attended; Hosted two major interdisciplinary colloquia/series in collaboration with many campus units and with Phi Beta Kappa: “Plague, Progress, and Prevention: 100 Years after the ‘Spanish’ Flu Changed the World” and "(R)evolution? The Future of Computer Simulation of Matter."
	More Time and Opportunities for Pedagogy, Scholarship, and Professional Development for Faculty and Staff	Continue to support travel to conferences/workshops related to pedagogy, teaching and learning, high-impact practices, scholarly practice, outcomes assessment, academic advising, time management, etc.	Supported faculty and staff travel to several key meetings, such as: Understanding Interventions that Broaden Participation in Science, CUR Dialogues, NSF and NIH grant proposal development and management conferences, SIGCSE, and ACS workshops; TCNJ and the SoS hosted the Conference on Undergraduate Women in Physics for the Mid-Atlantic states and CUR Transformations meeting for their major national curricular project.

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Building a Teaching and Research Supportive Infrastructure	Integration of New Facilities, Instrumentation, and Computing into Curricular and Research Programs	Continue to implement broad usage of new strategic laboratory and computing equipment/instrumentation.	Expanded utilization of new equipment/instrumentation into curricula, courses, and research programs; Implemented new laboratory fee to support new and replacement scientific equipment; Installed and initiated usage of new high-performance computing equipment from NSF-MRI and NSF-RUI grants.
		Engage in planning and communication about the final stages of the renovation of SoS facilities during Phase 2 of the STEM Complex project.	Held meetings with the campus construction managers, contractor, and architects; Regularly communicated with department chairs and other key faculty and staff members about project; Phase 2 renovation substantially completed, with a few remaining elements and punch lists to complete.
	Maintenance, Support, and Training for Instrumentation and Computing	Provide group and one-on-one training sessions on high-performance computing and virtual computing.	Delivered several presentations to groups of faculty and students; Provided multiple faculty members with one-on-one instruction on using the cluster resources; Worked directly with multiple students to help install, configure, and utilize resources on the cluster; Offered a new series of workshops during MUSE 2019.
		Continue to coordinate discussions on long-term maintenance, training, and service needs.	Reviewed and revised our equipment/instrumentation maintenance approaches in relevant departments.
	Enhanced SoS-focused Information and Technology Support	Identify opportunities for grant proposals and opportunities for interdisciplinary/multidisciplinary and interinstitutional/consortial collaborations.	Reviewed program solicitations and planned future programmatic submissions; Several individual faculty research proposals included hardware and software for the High Performance Computing cluster; Began implementation of funded NSF-Cyberinfrastructure and NSF-MRI grants.
		Provide new support for the High-Performance Scientific Computing Cluster.	Provided considerable training through one-on-one and group sessions; Taught a new HPC series of workshops during MUSE 2019; Collaborated with departments and IT to implement NSF-Cyberinfrastructure and NSF-MRI grants.