PLANNING OUR FUTURE, BUILDING ON SUCCESS.

Strategic Plan, 2012 - 2017
North Carolina School of Science and Mathematics
North Carolina School of Science and Mathematics has created a bold plan to accept the greater challenge. The Strategic Plan serves as a road map for the school to achieve its educational goals over the next five years by defining what it seeks to achieve and how it will measure success in each area. It provides both direction and fluidity. And because it was developed through consensus by stakeholders, the Strategic Plan is inclusive and has broad support.

With help from students, parents, alumni, employees, boards, friends and collaborators, NCSSM will achieve its goals and continue to build on the successes of the past 32 years.

NCSSM is poised to undertake great challenges, push the limits of what’s possible, and provide even more opportunities through world-class STEM education.

Mission of North Carolina School of Science and Mathematics

The mission of the North Carolina School of Science and Mathematics, an intellectually stimulating, diverse and collaborative community, is to:
- educate academically talented students to become state, national and global leaders in science, technology, engineering, and mathematics,
- advance public education in North Carolina,
- and inspire innovation for the betterment of humankind through challenging residential and virtual programs driven by instructional excellence and the excitement of discovery.
Beliefs

NCSSM’S fundamental values and non-negotiable principles

North Carolina School of Science and Mathematics believes that:

• Our greatest resource is the capability and creative capacity of the human mind.
• Everyone is unique and has intrinsic value.
• Diversity enriches and strengthens lives and communities.
• Embracing challenge inspires excellence.
• Individuals are responsible for their choices and actions.
• Service to others builds and strengthens our community.
• Environmental stewardship and resource sustainability are everyone’s responsibility.
• With opportunity, support, and effort, all people can realize their full potential.
• Personal fulfillment and professional success require a passion for learning throughout life.
• Collaboration fosters learning, innovation, and community.
• Adhering to high ethical standards is essential for a community to function and flourish.
• A nurturing living and learning environment develops the well-being of the whole person.
• Quality public education is essential to a free, democratic society.
• Science and mathematics education stimulates innovation and invention and is critical to the well-being of our state, nation, and the world.

Parameters

Boundaries within which NCSSM will accomplish its mission:

• The best interest of students will always be given the highest priority in decision-making.
• As we strive to achieve our mission, we will assure the integrity and quality of our residential program in collaboration with all other NCSSM programs.
• The scope of our program will always include learning in the humanities, social sciences, extracurricular activities, and service.
• Programs and services should be consistent with the Strategic Plan, and the benefits clearly justify cost.
• We will always provide safe, secure, and supportive environments for living, learning and working.
Objectives

Goals that NCSSM will achieve through the Strategic Plan:

These objectives reflect specific, demonstrable, and measurable results that exceed our present capacity and will allow us to address the critical issues we face. The goal is to accomplish these four objectives over the next five years:

- Have each NCSSM student develop and be engaged in an independent research or other real-world learning experience.

- Annually increase the percentage of graduates who are actively engaged in STEM-related fields.

- Have a collaborative partnership with a majority of school districts in each congressional district in North Carolina to provide high-quality educational content and services to teachers and students.

- Engage 1,000,000 students and 100,000 teachers through NCSSM products or services over the next five years.
### STRATEGY 1
Increase and diversify our sources of revenue and resources as well as ensure sustainable use to best achieve our mission and objectives.

1. Secure recurring state funding specific to the current operations and the expansion of distance education programming.
2. All elected and appointed leaders of NCSSM, including members of the Board of Trustees, Foundation Board of Directors, and Alumni Association Board of Directors, model a culture of charitable giving by donating financially to NCSSM.
3. NCSSM employees and students foster a culture of charitable giving to the institution by donating financially to NCSSM or making other contributions to the institution.
4. Increase charitable giving from NCSSM alumni by an addition of $30K and 200 alumni annually.
5. Increase charitable giving from current NCSSM families by an addition of $25K and 40 families annually.
6. Increase corporate charitable donations to NCSSM by $200K annually.
7. Generate revenue from financially self-supporting outreach programs to support the school’s mission.
8. Apply for and receive contract or grant awards from state, federal, private foundation or other qualified sources to fund institutional priorities.
9. Establish sustainable use of environmental resources as a standing priority in operational and instructional practices.

### STRATEGY 2
Improve our Information Technology (IT) systems and services as well as provide the facilities and equipment to effectively accomplish the mission of our residential and virtual community.

1. Implement best practices to increase efficiency in maintaining the physical plant and facility.
2. Increase energy efficiency by 20% in order to reduce costs for utilities for the physical campus.
3. Meet current NC Building Code standards and energy efficiency recommendations by upgrading the infrastructure and facilities.
5. Upgrade IT infrastructure to protect and improve IT services.
6. Continuously improve manageability, flexibility and cost efficiency of campus IT systems, staff and operations while maintaining or increasing end-user satisfaction.
7. Increase student satisfaction by restructuring housing assignments and resource replacement cycles to meet recommended levels of UNC-system schools.
8. Reconfigure and equip identified learning environments to facilitate student-centered, active learning.
9. Evaluate existing and potential lab spaces and upgrade lab facilities, equipment, and safety practices to effectively accomplish the school’s mission.
10. Ensure all facilities meet fire codes and ADA Standards for Accessible Design.
11. Develop and implement an Instructional Technology Plan.
12. Develop training and professional development program for faculty and staff.
13. Articulate and implement an inclusive organizational structure and clear process for decision-making, implementation, and deployment of new platforms, software, tools, and technologies.
14. Improve communications and customer service between ITS and faculty, staff, and constituents.

### STRATEGY 3
Ensure our residential and virtual programs work collaboratively to fulfill our mission.

1. Develop a school calendar and daily schedule that will optimize opportunities for collaboration between residential and virtual programs.
2. Academic Programs and Distance Education and Extended Programs (DEEP) will have shared responsibility for supervision of NCSSM faculty with DEEP responsibilities.
3. Academic Programs will become responsible for the content of all NCSSM courses and will work collaboratively with DEEP to develop curriculum and instructional technology, and to determine the best delivery of the content for both residential and virtual programs.
4. Unify, or ensure the interoperability of, NCSSM’s Learning Management Systems (LMS) and Student Information Systems (SIS).
5. Faculty will create lessons on the web and for use in virtual and residential classes.
6. Consider and support opportunities for social, academic, and service-learning interactions among all NCSSM students, both virtual and residential.
STRATEGY 4
Increase the capacity within our faculty, the community, our alumni, and professional partnerships to provide students with research and other real-world opportunities to apply their learning.

1. Modify and increase the capacity of the research program, Mentorship program, and summer internships and research to better meet student demand.
2. Increase focus on authentic real-world opportunities in our courses, Mini-Term, and work service.
3. Expand academic and service opportunities (summer and school-year) to build leadership, planning, communication, and organizational skills of students.
4. Facilitate interaction between the school and families, alumni, corporations, government, nonprofits, and universities to increase the real-world opportunities for students.
5. Assign a leader to guide and be accountable for coordinating the myriad of real-world/experiential learning activities.
6. Change the school culture and advising process to communicate the value of real-world/experiential learning to our own students and to external audiences.

STRATEGY 5
Improve communication, public relations, and marketing to achieve our mission and objectives.

1. Improve the NCSSM website to enhance both internal and external communication.
2. Increase positive awareness of NCSSM.
3. Improve communication with all constituents of the NCSSM community so that pertinent information is available in a timely manner.
4. Standardize NCSSM branding.

STRATEGY 6
Improve the academic preparation of admitted students and provide sufficient support for their success while on campus.

1. Create an admissions rubric that aligns with factors correlating with success at NCSSM and that includes such qualitative factors as motivation and interest in science, technology, engineering, and math.
2. Improve the advising program by increasing interaction between advisors and advisees, and improving the quality by implementing an advisor training and evaluation program.
3. Revise registration and scheduling practices to increase students’ chances for academic success.
4. Evaluate, develop, and promote the Summer Bridge Program to ensure it provides prerequisite content for accepted juniors whose placement scores and other appropriate criteria indicate a need in order to introduce and acclimate them to the level of rigor at NCSSM.
5. Enhance student support by improving the quality and quantity of interactions between staff and students beyond the classroom.
6. Provide student information to faculty and staff and enhance their ability to meet students’ needs.
7. Create and sustain a healthy campus climate by providing initiatives that enable all campus community members to feel welcome, supported, included, and valued by the school and each other.
8. Create and enhance a culture of comprehensive, integrative, and proactive mental health awareness and engagement amongst the NCSSM community.
9. Create a summer orientation program for all juniors that acclimates students to the campus community, available resources, skills for success at NCSSM, and the local area; and provides better access to advising and registration information before enrollment.

“We’ve been fortunate to have such strong involvement over the years in our strategic planning process from the NCSSM community. This commitment of time and vision helps to ensure that we can continue to meet our mission of serving talented students from across our state and partnering with teachers and schools to advance public education in North Carolina.”
— J. Todd Roberts, Ed.D., NCSSM Chancellor
STRATEGY 7
Create an environment that stimulates the creativity, innovation, and excellence of our faculty and staff.

1. NCSSM curriculum standards will encourage the freedom to incorporate thoughtful innovation, careful risk-taking, reflective practices, and the promotion of original ideas.
2. Innovation and creativity will be factors considered in hiring and evaluation practices.
3. Overhaul and align the residential and DEEP daily timetables and school calendars to allow all faculty to participate in professional development, curricular innovation, and external school partnerships.
4. The work environment at NCSSM will include collegiality, collaboration, recognition of employees' contributions, and support for balanced lives for employees.
5. Administration will clearly communicate expectations and protocols, value and honor innovation and creativity, be transparent in its decision-making, and be responsive to faculty and staff.
6. NCSSM financial procedures for faculty and staff projects will be streamlined, flexible, clear, and responsive to instructional needs.
7. Individual faculty and staff work schedules will be negotiable to allow time for innovation.
8. NCSSM will have a professional development program that accounts for individual faculty and staff needs including internal and external collaboration.
9. Create an electronic Faculty Handbook that compiles institutional knowledge of all policies, procedures, and expectations related to faculty.
10. Define various faculty job responsibilities to allow for diversified, yet equitable workloads.

STRATEGY 8
Expand our outreach activities for teachers and students throughout North Carolina and beyond.

1. Define the goals, objectives, and intended outcomes for NCSSM outreach activities.
2. Develop and implement an NCSSM Partnership Model in order to expand our outreach activities.
3. Establish administrative processes for coordinating and documenting outreach activities as defined by the goals, objectives, and intended outcomes.
4. Prioritize and support outreach activities with adequate internal human, technical, and financial resources.
5. Develop, organize, and share digital resources for teaching and learning.
6. Provide academic enrichment and support for K-12 students in North Carolina, particularly addressing the needs of under-represented students and academically gifted students.
7. Develop and disseminate relevant, innovative, and student-centered teaching and learning methods and materials.

STRATEGY 9
Articulate a vision for NCSSM with a western campus that strengthens our ability to achieve our mission of expanding opportunities for students and educators.

1. Secure state funding to adequately support all NCSSM programs and operations.
2. All students will continue to apply to the NCSSM program of their choice and admissions will continue to be apportioned by geography.
3. All NCSSM programs should offer distinct value to students and families.
4. Convene a broad, diverse group of stakeholders as a committee to advise the planning process.
5. Academic planning and program implementation will be in alignment with NCSSM’s Strategic Plan.
6. Academic planning and program implementation will catalyze innovation in STEM education and maximize unique regional assets.
7. Conduct a comprehensive inventory of regional assets to the program, particularly academic and social, from a variety of perspectives, especially students.
8. Infuse program design with broad and diverse constituent insight gathered through effective research methods.
9. Ensure that the organizational structure of each program underscores the importance and value to individual participants, local and regional communities and NCSSM as a whole.
10. All programs of NCSSM will operate under the current jurisdiction defined in North Carolina General Statutes.