Vision

“Our vision is to be a community of teacher-scholars committed to creating an environment of distinctiveness and excellence that supports and nurtures students as scholars and encourages learning through inquiry, all within the framework of a broad liberal arts and sciences education.”

We Value:

- Students as individuals
- Our colleagues and peers as teachers and scholars
- Commitment to responsible and ethical practices in research and pedagogy
- Inquiry and intellectual curiosity
- Meaningful engagement with the community, region and state
- Collaborative effort and lifelong learning
- Diversity and dialogue
- Accountability and assessment as key tools to drive continuous improvement

Goals for 2020

Goal 1 (Role of Sciences in the College of Charleston Undergraduate Curriculum):
To ensure that all College of Charleston undergraduates acquire an education that will equip them with the scientific, mathematical, and statistical literacy that will be critical in order for them to be leaders in their profession as well as informed citizens in a society that will continue to be increasingly dependent on science and technology.

- To have in place a curriculum and associated courses that ensures that students can demonstrate an appreciation and understanding of the scientific method of inquiry; acquire knowledge of the evidence, ideas, and models that scientists use to make judgments about the natural world; and acquire a knowledge of the natural world including the origin and evolution of the Universe and of Earth, the nature of the physical world, the nature of the biosphere and how it evolves over
time, the processes of inquiry in science, and the integrative and synergistic nature of scientific knowledge within and outside of scientific disciplines.

- To ensure that all students master some of the theoretical underpinnings of an area of mathematics relevant to society at large, and demonstrate an understanding of abstract mathematical objects separate from any particular application. Students will also engage in college-level mathematical modeling of varied phenomena (i.e., applying the abstractions described above to concrete problems in a variety of disciplines), along with the quantitative, symbolic, and computational methods necessary to answer questions, understand the significance of the results, and judge their reasonableness.
- To ensure that students will be able to determine the nature and extent of information needed; will know how to access the needed information effectively and efficiently and will be able to disseminate it effectively to others; and will understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.

**Goal 2 (The Undergraduate Curricula, Programs, and Experiences):** To be nationally recognized for the quality of our undergraduate programs. Our students will receive the most current knowledge of the subject matter and procedures in a chosen program of study and its supporting areas. They will have opportunities to collaborate with faculty, graduate students, and other undergraduates in significant research experiences. Programs for SSM majors will establish and emphasize depth of disciplinary knowledge as well as connections between and among disciplines. Imaginative and creative teaching techniques supplement traditional methods to achieve optimum student learning. The atmosphere maintained in the learning environment manifests a commitment to providing a global perspective and a sensitivity to the impact of science and mathematics on society. Special programs attract and encourage students from under-represented populations. SSM programs are both distinctive and excellent. In some cases the distinctiveness is because programs have been built upon geographical or other special considerations that uniquely characterize the College of Charleston. Other programs are distinctive because they are traditional in content but are characterized by particularly high quality.

- To be regarded by all of the best students in South Carolina as the place to go for science education and to have a similar reputation for out-of-state and international students that increases the closer one gets to Charleston. At the same time we want to have the financial resources to accept any student who wants to attend, not just those with the means.
- Encourage small class sizes and team teaching.
- 100% of graduates have a job or get into the top graduate schools.
- Creation of interdisciplinary majors, not just within sciences but between sciences and non-science disciplines.
- Evaluation of all SSM programs every 6 years by a panel of outside peers.
Goal 3 (Faculty in the School of Sciences and Mathematics): To have a faculty in the School of Sciences and Mathematics who are characterized by an unquestioned commitment to teaching while simultaneously maintaining a level of research and scholarship appropriate for the mission of the institution. The faculty have as their three key professional goals to: stimulate learning, to convey understanding of and appreciation for their disciplines, and to continue their scholarly activities and guide undergraduate research. Research and scholarship by students and faculty provide the foundation for programs in the School of Sciences and Mathematics. Scholarship is expected of faculty, as faculty cannot be expected to convey passion and excitement for learning if they are not involved in the process. Teaching springs from passion that comes from mental engagement in the process of inquiry. Science and Mathematics programs emphasize research by faculty and students as the single most effective form of teaching. Independent-study, faculty-student research, and other forms of one-on-one interaction between student and professor are of primary importance to all departments in the School of Sciences and Mathematics, as these experiences provide the personal interaction between faculty and students that is essential to a liberal arts education.

- Have the resources and support so that departments can hire strategically, both to promote programmatic expertise in key areas and to maintain a general balance of expertise.
- Create a more diverse faculty.
- Fewer adjuncts and better paid ones (85% roster, 15% adjuncts)
- Hire more faculty with a demonstrated ability to engage in interdisciplinary work.
- Provide better marketing of the current accomplishments of faculty and students in science and mathematics.
- Bring in more research experts in order to improve the chances of obtaining external funding while still maintaining a focus on undergraduate education.
- More recognition of the workload impact of individualized instruction.

Goal 4 (Graduate Programs): To provide more opportunities for graduate education in the sciences to not only serve the needs of the region, but also to enhance the undergraduate programs.

- Masters programs help us recruit good faculty, but they should only enhance and not degrade undergraduate program.
- Ph.D.s in a limited number of areas focused areas where C of C has a niche - Marine Biology and Environmental Science are possibilities.
- Graduate students can enhance the quality of the undergraduate research experiences.
- Sufficient support to attract full-time students from across the nation.
- More opportunities for distance education, on-line, and virtual-content courses. These will not be pervasive, but can fill a need in some areas.
Goal 5 (Increase Faculty and Student Exchanges and Collaborations): To expand opportunities for faculty and student exchanges and collaborations with both national and international institutions.
- Partnerships with national laboratories.
- Country-dependent and discipline specific study abroad experiences.
- Exchanges with other US institutions.

Goal 6 (Resources, Facilities and Technology) To have the resources, facilities and technology necessary to support the goals of the School.
- The School must have a close and strong working relationship with Institutional Advancement needs to have a robust development program so that resources for the School (financial aid, faculty support, money for resources, student summer support for research) are not so dependent on unreliable State support.
- Better physical proximity for departments.
- All classrooms should have SMART boards, projection capabilities, recording capabilities.
- SSM has sufficient personnel dedicated to IT support.
- SSM has high performance computing and networking capabilities up to the demands of the discipline in 2020.
- As space is refurbished or new space is acquired it is designed to encourages and enhance interdisciplinary collaboration.

Goal 7 (Community and Alumni Engagement) To increase our engagement with our alumni and the community outside of the College.
- Establish a service learning minor specific to SSM to engage the students and faculty experiences working with the community.
- Encourage more work in science education with the K-12 community by both faculty and students
- Encourage the population of retirees to see the College as a viable resource for enriching their lives.
- Improve contact with alumni.

Goal 8 (Organization and Leadership Responsibilities): To maintain a culture within the School that preserves the historical identity and mission of the College and respects the judgments and contributions of administration, faculty, staff, and students in advancing the mission of the School of Sciences and Mathematics and the College.
- The College hires leadership consistent with its mission and values; changing leadership should not change or dictate the personality of the College.
- A culture of trust, respect and two-way communication must always be maintained between faculty and administration.