End of the Year Summary Report – AY2022-2023

Overall Summary
This report summarizes the activities and accomplishments towards the College objectives for the 2022-2023 academic year. A written update on the progress made for each objective is provided below. This is the first year of this approach to identify objectives that allow the GCOS faculty and staff to be more proactive towards strengthening our College, each department, the BCCMWS, and our University. This approach increases transparency in the work that is underway at the College level, shares what has been accomplished, and identifies what still remains. It also allows us to understand our collective needs and goals so that we can become advocates for the College and each unit in the College.

For this year, without a prior visioning/strategic planning document in place, the stated objectives were determined by numerous meetings with faculty and staff in the summer of 2022 as well as on general attributes that exist in strong science colleges from across the nation. These can be found in Appendix A. We focused on three primary areas this year: 1) Our Vision, 2) Our Communication, and 3) Our “One College” Approach along with other specific objectives that were identified. In total, 22 objectives (solid black bullets below) were identified along with 54 secondary objectives (open circle and small, black square bullets below). 95% of the 22 objectives were worked on this year with 7 completed (32%) and 14 in progress (63%) with significant work accomplished already. For the secondary objectives, 23 (43%) were completed with 18 (33%) still in progress for a total of 76% of all secondary objectives. Each objective below is labeled with a term to show the level of work accomplished. “Completed” refers to the fact that a specific objective was accomplished this year, but in many cases (detailed below), these “completed” objectives will still need to be focused on each year to maintain the same outcome. “In-Progress” refers to significant work that was accomplished to move these issues forward, but work remains. “Not Completed” is labeling an objective that was not able to be worked on or significant work was not done towards a particular stated objective.

This has been a great first year together as we have created wonderful momentum for our future! It has been a joy to see how hard our faculty and staff work to provide the best STEM educational experience possible for our students. Our students are awesome! I have enjoyed getting to know many of them over this past year. I look forward to continuing this important work with you all so that the Gupta College of Science can continue to thrive.

Dr. Chad L. Leverette
Dean, Gupta College of Science

College objectives in black and updates from this past year in blue

Visioning
- Creation of ad-hoc strategic planning/visioning committee to gather widespread feedback (from faculty, staff, students, alumni, external/community partners, etc.) and help formulate a complete vision, mission, message, and goals for the College – In-Progress
  - Identify a way to express our message succinctly and powerfully to build awareness of the distinctiveness of our programs and approach – Not Completed
  - Further solidify our place as a premier STEM provider – Not Completed
The visioning/strategic planning committee was established comprising 10 different faculty and staff from each of the areas of the College. This group worked diligently from October 2022 into the summer 2023. The committee is following a 7-step process for our visioning/strategic planning. The group began by assessing strategic plans from peer and aspirant institutions. The group also looked at 14 different S.W.O.T. analyses from higher education institutions. A S.W.O.T. survey was constructed for our College based on this work that also included open-ended questions on a variety of topics. This survey was completed and sent out to 11 different stakeholder groups in January 2023. In total, we received 953 total responses to our survey, which is more response than what some institutions receive on surveys like this. This was tremendous response that will help us greatly. This level of response yielded 195 pages of data from IRAA. Our committee divided into three subcommittees to help divide up these data for analysis. The group worked to turn every response from the quantitative and qualitative data into graphical form to help with visualization. For the open-ended qualitative responses, thematic coding was used to turn each response into semi-quantitative data and then graphed. All graphs of all of the data were provided to our College at the end of May through our College Teams page. Once the fall semester starts, there will be two open forums to discuss the results and then the committee will begin drafting the vision, mission, and goals/objectives for the College for the remainder of the fall semester. Special attention will be given to make sure our College plan supports the new University plan that is being developed.

**College Communication and “One College” Approach**

- Create a multi-faceted approach to improve our communication both internally and externally - **Completed**
  - Hire a full-time staff member to serve as our Media and Communication Director - **Completed**
  - Work to develop full communication plan for both internal and external communication (web, print, digital, video, social media) - **Completed**
  - Create internal mechanisms to share information while reducing use of email - **Completed**
  - Create broad presence on social media and increase frequency of posts on faculty, staff, and student accomplishments and activities - **Completed**
    - Link posts to TV boards in science buildings and around campus – **In-Progress**

We worked to develop a comprehensive, multifaceted communication plan for the College for this year. This plan included intentional efforts and initiatives for both internal and external audiences. For internal communication, we recognized that people enjoy receiving communication in many forms; therefore, any approaches we took had to keep this in mind. For external communication efforts, we believe that what takes place at Coastal related to our outstanding STEM work is too much of a secret in our county, in our state, and nation. One last consideration is that we recognized that communication needs to be timely and current. Considering these factors, our primary forms of communication focus on three approaches.

1) The first approach was the development of a College Microsoft Teams page. This page allows for our College to feel more connected. Each faculty and staff member of the College is a member of our Teams page. Each post highlights events, activities, and accomplishments of our faculty, staff, and students. These posts can be put out in the moment, providing current and timely information without burdening people with countless emails. The Teams page also allows our College to share files and presentations from meetings along with pictures of our events and what our people are doing. Our faculty and staff on our Teams page can choose to receive notifications on their smartphones, tablets, and computers so that they can stay in tune with events and postings as they happen. For this year alone, we had 128 individual posts highlighting the successes and accomplishments of our people and departments. Our faculty and staff have commented how this approach has allowed them to be more connected, to feel less “siloed”, and to become advocates and champions for their colleagues in other departments.

2) For some, the Teams approach may not be their preferred method. Many still rely on emails, and emails are still a major form of communication for our College and University. Therefore, we created a once a month College recap email that goes out on the 15th of each month. This allows faculty and staff to expect to receive this email on a specific day of the month and helps create a rhythm for information. This also cuts down on the overall number of emails sent out by capturing all of this important information in one monthly email. These recap emails contain hyperlinks to our College Teams postings so that anyone can go to a given story that has taken place over the last
month. This allows the reader to read what is of interest to them, but yet all of the stories are available to everyone. The College recap is almost like a digital newsletter that provides general announcements for the College and University, lists upcoming events, and shares departmental and College news, activities, and accomplishments.

3) Finally, it was important to broaden our reach by utilizing social media. Up to this point, our College’s presence on social media was limited to one twitter account that was connected to the dean and a YouTube channel. Our new approach placed our College on five social media platforms, which has been shown nationally to be the best number of platforms for communication coverage, under the handle @coastalstem. The platforms where @coastalstem is active are Twitter, Instagram, Facebook, LinkedIn, and YouTube. In total, since November 2022 until our wrap-up meeting on April 27, 2023, we have created 498 unique posts across these five platforms and have attracted 1,616 new followers from around the world to follow our pages. This is helping us with our global reach as we tell our story of how our faculty and staff are providing a premier scientific education and experiences for our students.

This work would not be possible without creating a new Media and Communication Director position in our College. Although unique for colleges of science nationally, it was important for us to have someone dedicated to our marketing, media, and communication efforts. We were fortunate to hire Ms. Wendi Lee in November 2022 into this position.

Other work this year focused on improving our communication includes updating our website and webpages; creating both kick-off and wrap-up meetings so that our College could be more transparent and accountable on the work that we are doing each year; the formation of a College Calendar to share important events of the College; creation of a once a semester College Town Hall to share current campus and College information; the latest issue of Progression will come out this summer (a change to only one issue a year to summarize the year’s activities for the College); and a year-end written summary report to share the details about the accomplishments and work on the identified College objectives.

New marketing materials were not produced this year. Those will be developed after the College visioning process is complete.

- Build excitement, awareness, appreciation, and support for all seven departments in the College as well as the SCE and our BCCMWS – Completed, will need to continue
  - Work to develop community and advocacy for each other (all staff, all faculty- all ranks and in all disciplines) – Completed, will need to continue
    - Create posts relative to activities/accomplishments in College - Completed, will need to continue
    - Increased communication and connection between the Dean’s Office and students/faculty/departments – accomplished by visits to departments, department meetings, invited classroom visits, attending and supporting student presentations, field activities and sharing outcomes of visits - Completed, will need to continue
    - Intentional communication of budgets, personnel decisions, objectives, processes - Completed, will need to continue
    - Structure college leadership and staff meetings to create opportunity to share ideas, gather feedback, and use ideas/feedback to accomplish work of the college - Completed
    - Work to support/develop awareness, resources, and the important roles of our NTT faculty in our College – Completed, will need to continue
    - Possible creation of spring “Celebration of Excellence” event to recognize outstanding GCOS faculty, staff, and student accomplishments throughout the year – Not Completed
    - Consider/continue with activities/initiatives from the past that have helped support the “family feel” of the college (e.g., College baseball game, etc.) – Completed, will need to continue
    - Consider new initiatives that promote the appreciation of our faculty and staff – Not Completed

It is our desire to create a more unified approach to all that we do as we work towards the future. We are working to build this “One College” approach by listening to each other more, by sharing, and by intentionally working
together. We are working hard to build on our strong community feel and our long-standing collegial approach. Some of the ways we are working to build this more unified and trusting environment is by visiting each other’s classrooms and attending field trips. Many faculty invited the Dean to attend many different classrooms and field trips this year (It was awesome!). Just visiting shows our support for each other and our students. Equally important is sharing this information with each other through our improved communication methods. So many of our students, faculty, and staff are commenting how they had no idea that was taking place in our College until they started seeing these announcements in Teams, email, or social media. It is neat to see our people cheering each other on in their efforts.

Another effort to build this “One College” approach is by intentionally joining in national conversations related to STEM education. We took a team of faculty representing almost every department in our College to the 2022 American Association of Colleges and Universities (AAC&U) Transforming STEM Conference. This is something we plan to do each year to join in these national conversations on STEM pedagogy with universities from across the nation looking closely at how we can become even better in the STEM education we provide.

Additionally, we have changed our leadership council so that our department chairs can share even more freely and support each other in leadership decisions for the College. This group is called “College Council”. The Dean’s Office also began “Office of the Dean” monthly meetings to work more as a team to support the College. Other changes were suggested and implemented in our Administrative Assistant/Specialist meetings.

We have brought back key open house events including an incredible open house our Burroughs and Chapin Center for Marine and Wetland Studies (BCCMWS) hosted this past November at the Ripley’s Aquarium. We reimagined how we share and organize information about our academic programs and activities to be even more compelling for our admissions events to show the key similarities across our seven STEM departments while also highlighting the distinctive details of each department. We carried on with existing College traditions like our Faculty/Staff Appreciation baseball game with a slight twist in that we all attended a CCU game this year to show our collective university spirit. We added a key student event in our “Science Scoop” where we provided free ice cream to over 350 students to just show them we care and enjoy being with them. We brought in internationally recognized experts in STEM like Dr. Corey Cochrane (hosted by Dept. of Physics and Engineering Science) from the Jet Propulsion Laboratory and Dr. Nahum Sonenberg from McGill University (hosted by our Disease Modeling Research Center under Dr. Gamberi’s leadership). Having these well-respected experts join us on campus for in-depth science discussions grows our faculty, brings us together, provides incredible experiences for our students, and enriches the community. We also added events to celebrate important activities like ABET accreditations and student honors ceremonies.

In terms of sharing our processes and budget information, these were shared with the College through our Teams page to share what was requested, what had changed and why, what personnel decisions were made and why, etc. In total, we conducted 19 searches this year (14 faculty searches, 5 staff searches), almost double any other College. The Dean’s Office also worked closely with Dr. Amber McWilliams and our newly established NTT Faculty Committee to listen to their concerns, answer questions, and help create more transparent communication for our NTT faculty. This work will continue.

There is more we can do to celebrate and support our faculty and staff. New initiatives focused on this will be set in motion in AY2023-2024.

**Excellent Teaching, Student Success, Professional Development, and Supporting the Teacher-Scholar Model**

- Support and develop opportunities that enhance the excellent teaching we provide to students – In-Progress
  - Engage in national conversations related to STEM (e.g., AAC&U Annual Meetings, Transforming STEM conference, webinars, speaker series, resources to faculty) and work to disseminate new ideas/approaches to the College as a whole - Completed
  - Help departments that have needs for new/updated classroom resources/technology for teaching – Not Completed
As mentioned above, we took a team of faculty from six of our seven departments to the AAC&U Transforming STEM conference last November. Our participation in this national STEM education conference will continue. We have more to do to help departments with classroom resources and technology. Even though this is listed as “Not Completed”, we did open up the use of lab and course fees that provide funds for us to purchase new technology and resources for these classes to help us provide the most current teaching advances to our students. This will also continue.

- Work with faculty and departments to brainstorm possible future curricular revisions/new programs/accreditations that will help our students based on today’s STEM needs in our state, region, and country – will also provide greater strength of departments over time and maintain our curriculum currency – In-Progress
  - Possible programs/accreditations for us to consider (this objective and subsequent discussions will be ongoing): Data Analytics, Coastal Engineering, Manufacturing Engineering, Clinical Lab Science, Marine Technology, Chemical Oceanography, graduate programs in Biology (maybe other areas), Cyber/Intelligence Interdisciplinary Degree, Mental Health concentration in Psychology, stackable certificates, 4+1 options, ACS approval for Chemistry program – In-Progress
  - Support new programs/degrees that were already in process in MSCI, BIOL, CHEM, MATH – In-Progress

For future possible programs and accreditations, ongoing discussions and review of information was accomplished for possible programs in clinical lab science (possible collaboration with the CMC College), a Master’s in biology, a collaboration with the Edwards College for an interdisciplinary cyber intelligence minor, and ACS accreditation for the chemistry program. In total, our College submitted 47 curriculum matters for approval which included 6 new programs/concentrations and 1 professional accreditation (ABET accreditation for engineering science was accomplished). The six new programs were our B.A. in Chemistry (Chemistry Education track), B.S. Psychology with a mental health concentration, B.A. Physics Education, B.S. Mathematics Education, B.S. Biology Education, and a B.S. in Marine Coastal Environmental Science.

- Increase support and programs that allow for deeper, richer experiential learning opportunities for students – In-Progress
  - Reconsider “Research Fellows Program” as a way to create a premier undergraduate STEM research award for students and faculty mentors - Completed
  - Share opportunities with students so that they can become more involved in experiential learning opportunities (e.g., national scholarship opportunities, activities on campus) – Completed, will need to continue
  - Support departments and the BCCMWS with their ideas/initiatives to grow/develop these types of experiences – In-Progress
  - Consider our involvement with CUR (Council for Undergraduate Research) to see if we can leverage these resources for our faculty and students – Not Completed
  - Support students interested in obtaining at least one regional presentation of their research (e.g., possibly the SC Academy of Science) – In-Progress
  - Consider/brainstorm/apply for grant opportunities that are College-wide where the Dean’s Office would work with department faculty to seek funds to help our students (e.g., NSF – Women in STEM, NSF – LSAMP – programs designed to grow underrepresented groups in science/STEM) – In-Progress

From the early results of our visioning data, it is clear that our stakeholders see that experiential learning is a strength of our College. This will most likely be a key area that we will want to further expand and support. To this end, the Research Fellows Program was completely reimagined with the launch of a new program, https://www.coastal.edu/science/researchfellowsprogram/. This program was modeled from some “best practices” for programs like this from aspirant institutions. For AY2022-2023, we fulfilled our obligation to the students selected for the old version of this program and then rolled out this new program. In total, 16 students were selected for AY2023-2024 based on research proposals they submitted with the help of a mentor. This is an exciting start!
Throughout the year, the Dean’s Office along with departments sent intentional email communications to students about scholarships and research opportunities. We did a lot of partnership work with Dr. Judy Zang, Director of National Scholarships at CCU. The Dean’s Office worked with department faculty and chairs individually on thinking about ways to better support experiential learning in the College. Some of this involved pursuing new grant opportunities, like NSF’s S-STEM. Faculty from the Department of Physics and Engineering Science submitted a proposal to S-STEM for this round for consideration. We also worked with the HTC Honors College on some grant possibilities where we could jointly submit a proposal together. There are other grant opportunities that we will consider in the coming years.

The Dean’s Office worked a lot with College Council on expanding our support for the high-impact practice of undergraduate and graduate research. Some of the efforts to provide this support included hiring new faculty (closer to/at CUPA levels) with very competitive start-up funds that are now in-line with our peers and aspirants; creating new programs like the Research Fellows Program; securing a new mechanism to have recurring College equipment funding; securing key private donations towards experiential learning; working with departments to clarify expectations for scholarship; modifying and clarifying duties to create an Instrument Technician (Prof. Hong Li) for the College; sending our faculty and students to the long-standing SC Academy of Science meeting to help students gain this experience; and looking at ways to better support research groups by joining international consortiums like the VIP program from GA Tech. There is more work to do with all of this. We were very successful with sending our faculty and students to the SC Academy of Science meeting. Chad Leverette: Update on SCAS Meeting!! Results of student awards... posted in O365_Gupta College of Science / General at Friday, March 31, 2023 7:34:47 AM. We will continue this effort. We did not do much with CUR this year and plan to look at that this coming year.

- With feedback from departments and the SCE, work with Office of the Provost and deans to create strategy for graduate programs – where they make sense, how many programs are desired and the appropriate size of programs, and how they are supported and advance the work of specific departments and our College – In-Progress
  - Work to help campus understand the types of support, benefits, and access to resources that are usually provided to graduate students compared to undergraduate students consistent with universities that have graduate programs – In-Progress
    - This affects policies like graduate travel, parking, resources if graduate students are teaching, possible tuition waivers, roles of GAs, ways they are paid (yearly compared to 9-month), etc. – In-Progress

The Dean’s Office and select departments participated in many meetings this year with the Provost’s Office, Deans’ Council, Graduate Council, the College of Graduate and Continuing Studies, the Center for Global Engagement, Student Affairs, and others related to graduate studies/graduate student issues. We were able to work with these groups to amend/edit the student travel policy for the campus that provides a better situation and more flexibility for graduate students. We have been stating the importance of the campus to recognize that graduate students should be considered differently compared to undergraduate students. Based on conversations with upper-administration, graduate programs are important for our future and will become more a part of our strategy as a University. Our graduate programs in marine science and computing science will remain and be supported with the campus hope that we might can grow these in some ways. We were able to bring more recognition to our graduate programs this year with the first-ever hooding ceremony for our Ph.D. graduates in conjunction with Spadoni College and the College of Graduate and Continuing Studies. We also featured our graduate students more prominently in our spring commencement ceremony. We (the Dean’s Office and the Department of Computing Sciences) have been working to reimagine our M.S. in Information Systems Technology to make this more attractive and flexible for students coupled with a redesigned Santee Cooper scholarship to help us recruit students. All of this will continue. There is more work we have to do on this on these objectives in the coming years.

- Work to develop ways to create professional development opportunities for faculty and staff – Not Completed
  - Understand and leverage current programs on campus that can create professional development for faculty and staff - Not Completed
Create baseline on desire for additional professional development and types of activities/support that would be most desired by our faculty and staff – Not Completed
Consider professional development support for Department Chairs and Associate Deans – Not Completed

These objectives will continue in AY2023-2024.

- Provide support and guidance for faculty going up for P&T, post-promotion/post-tenure review, and third year review – Completed, will need to continue

In total, 17 faculty were successful in our promotion and tenure, post-promotion/post-tenure processes and third-year review.

- Work with Office of Admissions on future strategy related to recruitment of STEM students into majors (both in-state and out-of-state students) – In-Progress

Targeted STEM recruitment will be something we need to look at as a College going forward. There have been initial discussions about this with the Office of Admissions and the Provost’s Office. Next summer (summer 2024), we plan to add a new “STEM Day” to our local high schools and counties to recruit more STEM students in-state. More recruitment strategies will be needed. This work will continue.

- Redo information provided by Dean’s Office for summer orientation to focus on strategies for success in the classroom for incoming students – Completed

A new approach was designed for August 2022 and all of the orientations for summer 2023 focused on important tips and information for student success for incoming students and ways in which students can maximize their academic experience while at Coastal through engaging with experiential learning opportunities.

- Support our incoming freshmen with more meaningful contact with College – In-Progress
  - Discuss with Office of the Provost the current University strategy/approach related to UNIV 110 moving forward – In-Progress
  - Intentional visits/connections of the Dean’s Office with 32 sections of UNIV 110 to support instructors and to explain STEM “grit” and how to be successful in difficult majors. – Completed, will need to continue
  - Consider new ways to interact with these freshmen students and to connect them with their majors. – Not Completed
  - Work with Office of Provost, Dean’s Office, and departments to think about strategies to aid with student persistence/retention and reduce number of students on probation/suspension – In-Progress

This is an important objective to help build “belonging” with our freshmen. Much of this work has begun and is in-progress. Going in order of the sub-objectives above, the dean has been in discussion with the Provost and Deans’ Council about UNIV 110 for the campus. The recent hiring of Dr. Simone Gause to help with our QEP (Belong@Coastal: Building Student Achievement Through Inclusive Engagement) may change this moving forward, but right now, UNIV 110 and what is covered in this class is left to the individual colleges. We are working to assign UNIV 110 to an associate dean to help with the administration of this course. The goal is to take this first-year experience, which is a high-impact practice, and put this with other things we do under the term “experiential learning”. To help us consider what the future of UNIV 110 will be for our College, the dean has asked Associate Dean, Dr. Rich Viso, to work on putting together an ad-hoc committee to explore best practices with first-year experience courses this coming year. According to AAC&U’s site regarding HIPs and first-year experiences, these types of courses “place strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students’ intellectual and practical competencies”. (https://www.aacu.org/trending-topics/high-impact) The goal would be to work with faculty to look at UNIV 110 and what our goals of this course should be for freshmen STEM majors. These may be slight tweaks to what we are
doing or a complete redesign after we gather more understanding. Our assessment could lead to just reaffirming
that we are doing in UNIV 110 is the best approach. There may also be a chance to work with departments to have
major specific information and experiences worked into UNIV 110. More work will continue on this.

The dean was able to attend 32 sections of UNIV 110 in the fall speaking to our freshmen class specifically about
retention, resilience, what it means to be a STEM student, and to help students relate to the common challenges of
pursuing a STEM degree. There was great feedback about this from professors and students. This will continue in AY
2023-2024.

We have not been able to identify yet specific “new ways” to interact/connect to freshmen. Some initial
conversations between the dean and the President and Vice President of the Student Government Association have
taken place and will continue into the new academic year.

There have been a number of meetings on strategies for retention and progression for our students. The good news
is that the number of students on probation and suspension this past year appear to be less than in previous years
for our College, but we need to look closely at exactly what might be working that is helping. Many initial efforts and
conversations have occurred with specific departments and with department chairs like Math and Statistics, Marine
Science, etc. with support (financial and administrative) to those departments to try specific initiatives to help
students in specific majors. Also, the dean’s office (dean, associate dean, director of student success and persistence,
and staff) submitted requests to IRAA for data to look at specific demographic groups to determine if some groups
are struggling more than others. That data is currently under review. The goal would be to tailor support towards
the needs of specific groups. The dean’s office is working with the campus to obtain campus approvals to make a
slight change in our process (ACAD 137) for those on academic advisory. This change is based on a review of our data
and should help us focus more on the primary students at risk. The dean has also been in discussion with the Interim
Provost and our Senior Associate Provost for Retention and Student Completion to look more closely at policies like
ACAD 137 to see how we (the entire University) might want to work together to make changes for improvement
based on recent data. In addition, the dean’s office has worked recently with specific faculty to gain more insight
into classes that have higher DFW with the purpose to help our departments be informed so that we might use
resources like Beacon more to help struggling students connect to campus resources for academic coaching. There
is a lot more that will be done in this area.

• Work with faculty and staff to possibly reimagine the structure of the School of the Coastal Environment
to help us plan for the future in emerging STEM areas; leverage interdisciplinary opportunities in STEM;
clarify the purpose of the SCE; fully support the work of the BCCMWS and boat operations – Completed,
will need to continue
  o Work with Department of Marine Science and the SCE as a whole to create strategy for “on the
water” locations that might allow us to grow our teaching and research opportunities (e.g.
Waties Island, Georgetown, Belle W. Baruch Institute for Marine and Coastal Sciences, Murrells
Inlet, etc.) – In-Progress

At this point, after a careful review of our organizational structure and the effectiveness of it, it was determined that
there was a need to reorganize and dissolve the School of the Coastal Environment structure. The SCE structure was
not really functioning as a School and it made the organization of our efforts in teaching and research more
confusing. Therefore, our College structure was redefined as seven distinct and strong academic departments and
our Burroughs and Chapin Center for Marine and Wetland Studies (BCCMWS), which includes our Environmental
Quality Laboratory and the Waccamaw Watershed Academy. The BCCMWS has a long-standing history at CCU as a
research, education, and outreach arm for our College that helps us connect with local municipalities and
state/national entities in the area of marine/coastal and environmental issues. The BCCMWS has the ability to work
with any department in our College on these areas and will be focused on how we can support interdisciplinary STEM
efforts in the future. As a College, we will be working to look more closely at how we can engage in more
interdisciplinary opportunities in STEM. This new structure also helps strengthen our seven academic departments
by clarifying their purpose and also allows resource allocation to be clearer to help support the activities of the
departments.
Boat operations and all boat personnel are under the College, specifically the dean’s office. This allows these important resources to be used by any of our seven departments and our BCCMWS as needs arise. There is a lot to do to help make our boat operations more effective and efficient moving forward. This includes the creation of a new website to help with boat reservations and account tracking. This should help us schedule boat usage and be more efficient in how we manage boats in specific locations to help minimize our costs of moving boats to different locations up and down the coast. In addition, we are looking closely at boat usage rates. Best practices point to a rate structure that should have rates for internal, grant-funded, and external usage. We will be working to put this into place in the fall of 2023. Finally, our College has an opportunity to create a strategic presence from Waties Island to Georgetown. With our main campus location in Conway, this creates a “triangle” of influence for us in how we help SC care for its coastline. The dean’s office wrote up a Waties Island/ATB Coastal Reserve strategy in fall 2022 based on feedback from departments and faculty. This was shared with the President, Provost, and CEF and supported by all parties. Based on this strategy, there is a desire for our campus to have a research station on the upland by Waties Island in the near future. This research station would give us an on-the-water location for research, education, and community outreach activities. A lot is going on in SC currently regarding conservation and specifically the property at Waties. The dean has been asked by the President to connect with the state and to gather information for Coastal regarding Waties Island with the help of the BCCMWS Executive Director, Dr. Paul Gayes, and research professor and consultant, Dr. Tom Mullikin. There have been numerous conversations with state agencies (i.e., DNR, PRT, Office of Resilience) and the Open Space Institute around Waties this past year. This will most definitely continue. In addition to Waties Island, our faculty utilize different access points from Waties to Georgetown to access the water for our students and for research. A lot of discussion is also taking place about Georgetown and how we access Winyah Bay. This also will continue as Georgetown is a key access point for us. More work needs to be done to work with our faculty and our departments that utilize our strategic location near the coast to maximize what we do for our programs in marine and coastal systems.

Administrative Processes that Support Faculty Governance and Good Stewardship of Resources

- Work on budgets as a whole – work with campus to move us from a more reactive budget to a proactive model that will allow us to generate funds to be used towards initiatives our faculty and staff care about – In-Progress
  - Consider areas where budget adjustments should be considered to allow us to steward our resources more effectively - Completed, will need to continue
  - Work with departments to more fully utilize student lab fees to make sure we are being good stewards with these funds and using them to create state-of-the-art experiences for students in our classrooms and labs – Completed, will need to continue

Budgeting has been a key area of work and concern for the dean’s office this past year. Part of moving this to a proactive model is working on areas where we want to grow/develop and to ask and advocate for these funds during the budget cycle. That took place this year and will need to continue. In addition, it is important for our College to know what was requested and what ultimately was funded. Appendix B shows the budget requests that were made for the College and our departments/BCCMWS for FY2024. Sharing this allows departments to see similar needs across the College which is helpful as we advocate for each other. Similarly, by sharing our requests, we can track what is funded and continue to push for what wasn’t funded. Sometimes things can’t be funded initially, but by having it on a list, we can make even stronger cases for those needs in the future by tracking data related to those needs. Having needs on our list is helpful in making us more proactive in stating clearly what we need funded. For this upcoming year, the dean’s office did work with departments on budget adjustments in the areas of temporary/time limited staff requests, student staff requests, and operating budgets. This will process will continue. We were successful in greatly expanding the use/approval of lab fees where we can use lab fees to purchase resources that create state-of-the-art learning experiences in these lab courses. We want to be great stewards of lab fees and make sure the use of these student funds fully supports what we do in the classroom/lab setting. Once our new budgets have been determined, what was funded will be shared with College Council and the College.

- Update internal GCOS budget workflow to create more efficient processes – empower Chairs/Departments and Center Directors, as well as faculty serving as PIs of grants, to manage their own funds with little signature oversight or delay. - Completed
A new budget workflow document was shared with all department chairs and administrative staff in summer 2022. The goal of this process was to streamline budget approvals/decisions and remove unnecessary steps. This workflow document also provided more authority to department chairs and center directors to help department manage their own specific affairs more effectively. Prior to this workflow change, there were many things that required the dean’s signature even though it was not clear that the dean, as budget officer, needed to sign. The dean now only signs for departments when amounts exceed a certain threshold so that chairs are supported in those fiscal decisions. Additionally, as chief budget officer, the dean now only signs TAs, grant expenditures, and lab fee requests. The reason for these areas is that the dean can oversee acceptable practices in these fiscal categories for all areas of the College to help with consistency. In AY2022-2023, even after these workflow changes, the dean still signed 1,322 documents as well as an equal number of ePro requests, invoices, etc.

- Work with campus partners to improve our processes related to hiring, purchasing, and pursuing external grants. – In-Progress
  - Engage in discussions with University Counsel, Procurement, and Human Resources to find ways to be more efficient in our processes related to purchasing and hiring – In-Progress
  - Work with campus to speed up process of purchasing for grants and department activities and follow through on initiated items until complete – In-Progress
  - Track activities related to purchasing to gauge ways to increase efficiency in future years – Not Completed
  - Share feedback with HR about the on-boarding process and advocate for improvement of the new employee experience – Not Completed
  - Advocate for and work with OSPRS to find new ways that would allow GCOS faculty to pursue external funding opportunities where a long lead time is not possible. – In-Progress

This continues to be one of the greatest issues that is often brought up to the dean’s office. Many discussions have taken place this year on all of this with President Benson, the Provost, the deans, and others. One of the greatest issues the dean’s office hears about are terms and conditions with regards to purchasing. With the change in legal counsel earlier this spring, this process actually changed/improved some in speed, but this continues to be an issue for our College. The dean is meeting with new legal counsel later in July upon the recommendation of the President and Provost. The dean is meeting with upper administration in finance and administration in July 2023 to further discuss possible solutions to procurement-related issues, like the use of purchasing cards.

Hiring also continues to be a difficult issue for our College. It is often noted how long it takes to hire someone. We have worked to greatly speed up the process in the dean’s office. Changes included making all personnel decisions earlier and then working to get these into our PeopleAdmin system. We are better, but not quite where we want to be yet. Significant improvements were made with summer hiring for faculty and students. More work is going to continue on this in the dean’s office. The dean has shared this with HR and the campus to try to work towards some campus improvements. The dean’s office is working to complete a hiring guide that will be completed in summer/fall 2023. This should help departments know the steps of the process that will help expedite hiring of faculty, staff, and students. More work needs to be done to work with HR on feedback on the hiring process and the new employee experience.

The dean’s office has spoken with the campus at length to try and find solutions to help support OSPRS. It is our hope that OSPRS will have increased staff soon. With the large number of grants that we receive (82% of all grants that the University receives come from our College), we need the continued help of OSPRS.

- Work to speed up process within GCOS for personnel decisions and work to minimize failed searches based on what we can control – In-Progress
  - Determine personnel hiring decisions at the beginning of the academic year so that searches can be processed earlier and job advertisements can get placed in a timelier manner – Completed, will need to continue
  - Work to hire in areas of critical needs to remove departments from overload situations as well as continue to hire to support our strong undergraduate/graduate programs while enabling more flexibility in potential future offerings - Completed
- Work to add staff so departments can be fully supported and to reduce workload demands on faculty and current staff - Completed
- Dean’s Office and Department Chairs will work more closely together on the strategy regarding the actual candidate visits to campus and negotiations to help secure the hire – In-Progress

Personnel decisions were completed and shared with chairs in early to mid-September 2022. With the dean just beginning July 1, it took some time to discuss with departments and to understand department and College needs, but all personnel decisions were shared with department chairs by this time. This allowed almost all faculty searches to start and be advertised in October with a few going out in November. In total, there were 19 searches for our College this year (14 faculty, 5 staff). This is more than any other College in AY2022-2023. The decisions and rationale for all personnel was shared with the College on Sept. 14, 2022. All of this had already been discussed with College Council. Some of the key reasons for some faculty hires were to remove departments from overload situations. That took priority for two departments. Other hiring decisions were based on faculty replacements from retirements and based on growth of departments. Also, our College was very understaffed in certain areas. A lot of work went into making sure every department has at least one full-time administrative specialist/assistant moving forward. This has not been the case for some time. As we head into fall 2023, our College departments and BCCMWS will be fully staffed for the first time in a long time. Having these staff members will help better support the administrative burden on departments/BCCMWS. This will allow faculty to not have to complete administrative tasks like in the past when no staff was available. In addition, it was decided to add an associate chair position to the Department of Psychology. With the tremendous growth of this department, Psychology has become the second largest major in the College. This associate chair position will help the chair with the administrative functions of the department. All of this is very important so that all departments know what is being funded and why. It helps departments advocate for each other and better understand the hiring needs and priorities of the College. Sharing with the College also helps everyone understand where we are and why certain faculty and staff lines were approved and why we have to wait on others. With limited personnel funds, we have to make tough decisions that move our College forward. It is important for us to know why the answer was a “no”. Sometimes these “no” answers really mean “not yet”. This allows our College to prioritize future needs by understanding that some needs have not been met yet. This process will continue in the future. It will be important to continue to make personnel decisions in late summer so that all faculty searches can be approved and advertised in early to mid-fall. Chad Leverette: Personnel Decisions, Process, and Rationale - AY2022-2023 posted in O365_Gupta College of Science / General at Wednesday, September 14, 2022 7:42:26 AM

- Create baseline for equipment inventory and risk – work to develop budget and planning model to handle repairs and replacement of key STEM equipment - Completed
- Work to expand STEM equipment in College – In-Progress

A tremendous amount of work went into this in AY2023-2024. Before any new funds could be requested, the College needed to do a full risk assessment/inventory of all equipment, instrumentation, and vessels to fully understand our need and current risk. A full report was completed and shared with the campus and BOT for review/approval in early spring 2023. In total, 427 pieces of equipment/instrumentation/vessels were recorded in the College inventory totaling $6,766,424. Current value of this equipment based on a 20-year depreciation model is $3,762,669. It was proposed and approved for our College to have College program fee that all undergraduate and graduate majors of the Gupta College of Science would pay each semester. That fee is $125/major/semester. A full STEM fee analysis of our peers/aspirants in the state (Clemson, USC, College of Charleston) was completed. It is very common for institutions to have fees connected to STEM programs due to the expensive cost of running STEM programs. Our College had been running specific program fees in specific disciplines as well as specific lab fees. In the end, existing and higher STEM program fees in engineering science and marine science were removed and consolidated into a lesser college-wide program fee that applies to all STEM majors. This allows funds to be used for all STEM equipment and teaching/research resource needs across the college to help us continue to provide the best STEM educational experience possible while also being a good steward of resources. This new program fee is still the most affordable of STEM fees in South Carolina at these comparable institutions that provide premier STEM experiences like we do at Coastal. Some equipment (i.e, new $90k HPLC) has been purchased this past year with new funds from last year’s budget requests, but this new fee will allow us to maintain, repair our current inventory of equipment/resources and purchase new equipment, instrumentation, vessels as the needs arise more easily in the future. This will allow
us to continue to offer the best STEM education we can provide while also making sure costs to students are as low as possible.

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*29 items have no value remaining

- Work with College faculty/staff and current University and GCOS committees to clarify and communicate current internal processes that affect faculty and staff that are listed in our Faculty Manual and College Handbook (e.g., create P&T dates document for faculty regarding all current P&T processes to aid in transparency and clarity of processes - Completed; work with GCOS P&T committee to identify areas in our current processes that aren’t clear to faculty - Completed; work with College Handbook Committee to identify areas where ambiguities may exist in our handbook – In-Progress; help departments communicate department-specific criteria related to P&T so all faculty are aware - Completed; College Council to discuss/review the prior practice of “letter of expectations” so that all departments are consistent in either providing an actual letter or not that details departmental expectations for faculty - Completed; work to consider possible guidelines for faculty and student travel to make sure we fully support travel while optimizing and distributing resources equitably - Completed; work with departments to clarify faculty evaluation process to help create advocacy and support for our faculty for career advancement – In-Progress; Dean’s Office to provide Department Chairs with annual faculty evaluations that also discuss ways to support them as department leaders - Completed; work with College to clarify roles and duties of Department Chairs, Associate Deans, Vice Dean, etc. - In-Progress) – In-Progress

The purple updates state what we were able to work on together this year to “tighten up”/refine some of our processes to help us now and in the future. This summer, we are working to put all of these internal processes and documents on our website under the faculty/staff resources link. More to come on this. For the items listed as “In-Progress” above, we will continue to work on these together. In many of these cases, they are almost done. A number of editorial and some content related items were shared with the College Handbook Committee to work on reviewing these suggestions this coming year. Also, we are going to provide some additional administrative help with our Faculty Evaluation process to make this easier on departments and more consistent with dates and submission of files, etc. across departments. We have also been working together with College Council and our departments to look at our process for things like “letters of expectations” and making sure both our expectations for promotion and tenure are even more consistent across the College and clearer so that our faculty feel more supported and informed about these processes. We plan to use these revised “letters of expectations” for all new TT and NTT faculty this fall to help them understand fully their role in the department and College.

In addition, other processes were clarified this year to help faculty. These include the faculty and student travel process for GCOS, course buyout process, international travel process. All revised processes are posted on the GCOS website under the faculty/staff resources tab. We are working to provide a written process for hiring called a “hiring guide” that will help faculty and staff navigate all details related to hiring as well as a document that outlines the travel authorization process and when TAs are needed.
Community Outreach/STEM Awareness/External Partnerships

- Support departments in department seminars/series to help bring in speakers to campus to build our reputation and facilitate STEM awareness and outreach (e.g., advertising, planning of events, funds) – In-Progress
  - Consider a possible College speaker series for future years – In-Progress

There is more we would like to do with this objective moving forward. Once our visioning is complete, we will have an even better sense on how we can create opportunities that allow us to connect and engage with other scientific experts from across the nation. This is important both to share the knowledge that these speakers have and to share the results of their cutting-edge research, but it also helps us by showing that we are supporters of expanding scientific knowledge. It also helps us build meaningful relationships with these speakers. Most of the activity this year was accomplished by the excellent work of our faculty in our departments. Speakers like Dr. Nahum Sonenberg visited our Disease Modeling Research Center faculty and students. Dr. Sonenberg is a world-renowned biochemist and microbiologist. Dr. Corey Cochrane was hosted by the Dept. of Physics and Engineering Science. Dr. Cochrane works at the Jet Propulsion Lab. This event welcomed the community and was very well received. INBRE continued to bring in great speakers for our students and faculty studying biomedical research. Our “Brown Bag” series in the graduate program of the Department of Marine Science was also very effective sharing with students important research topics and practical themes like time management in research, etc. Our WE-STEM faculty welcomed different prominent women speakers with accomplished careers in science and engineering that spoke to our female students about future career paths. The College supported these efforts as needed from marketing and advertising to some financial assistance. More things like this will be discussed and reviewed to see if having a College-wide speaker series is something our faculty and staff feel would be valuable for the future.

- Support departments, the SCE, and the BCCMWS with current outreach events to community that help support STEM awareness and build our reputation – in addition, work to create strategy on future outreach events for the College (both for the broad community and K-12 audiences) – In-Progress

There were several important events that occurred this past year. A couple of our largest events came from our BCCMWS. In November, the BCCMWS had an “open house” to discuss the current research and outreach areas of the Center that focused on specific projects like Smart Reef, but also highlighted the important work of the EQL and WWA. It was very well attended and hosted at the Ripley’s Aquarium. We also partnered with Spadoni College to financially support 100 STEM K-12 students to attend STEM night at the Pelican’s game in April. This was a great chance to be a great local partner to our community. We also had a presence at the Horry County Tech Fair with Dr. Jeannie French and faculty showcasing our mobile planetarium. This local tech fair is huge and something we will work to get more connected with. Finally, our BCCMWS partnered with the South Carolina 7 statewide event to deploy Smart Reef in two locations off the coast of SC, while also allowing for tours of the Coastal Explorer, Waties Island, etc. coupled with visualizations of data from ongoing research projects.

- Build our external partnerships – In-Progress
  - Re-engage BOV – create expanded board that has identified work to help provide our College with this important external feedback related to our success - Completed
  - Work to engage with important alumni that can provide industrial perspective to what we are doing – In-Progress
  - Grow new partnerships/connections – In-Progress
  - Work with departments to create opportunities for both outreach and partnerships that may generate funds for department scholarships and resources – Not Completed
  - Determine external companies/contacts that departments would like to connect with and begin making these connections – In-Progress

This was a very exciting year in the area of increasing our external partnerships and donations for the College. In total, working closely with Advancement, we were able to secure $2.25 million in new funds, with most of these funds going to support, expand, and grow experiential learning opportunities for our students and the remainder going to scholarships. Some of these funds will also help us renovate a donated boat/vessel that was given to us this year by the North Myrtle Beach Police Department. This vessel is smaller than the Coastal Explorer, more
maneuverable, and capable of more open water usage. We are excited to get this boat going and placed on the water this coming year.

In total, the dean’s office, working with departments, made 66 new external contacts as we start to build relationships with these organizations and key personnel. Some of the key partnerships we focused on this year that will continue into next year were with Los Alamos National Laboratory, the Savannah River National Laboratory, Savannah River Nuclear Solutions, Monaco Ocean Week, SixAxis, and the Coastal Conservation League. Additionally, we were involved in setting up and/or renewing MOUs with some of these organizations. Due to the pandemic, our Board of Visitors for the College had been dormant. We worked to get this group going again, added new members (including Sunny Gupta, Apptio CEO and co-founder, HTC rep, and a Santee Cooper rep), and met for the first time in March 2023. We have already set our dates for two meetings per semester for next year according to our BOV bylaws. This is a great group of scientific experts that we will lean on for their advice on a number of issues that will help us move forward.

Total preliminary College objectives AY2022-2023: 22