FY22 QEP Proposal

Short, Descriptive Title
(See SACSCOC summary page of QEPs for examples: https://sacscoc.org/quality-enhancement-plans/)

Waterways of Learning: The Flow of Interdisciplinary Learning through Middle Georgia Waterways

Vision/Rationale/Statement of the Problem: Summary of Your QEP Idea
(Please include evidence, internal and/or external to GC, to explain why this topic is important, meaningful, and significant, and related to student success. Include references where applicable.)

Roughly 2/3 of the earth is covered by water. It is called the "blue Planet" for this reason. Water is essential for life on Earth. Sixty percent of the human body is composed of water, and we can only survive days without water. According to the World Health Organization, around 1 in 3 people worldwide lack access to safe drinking water. Water is so important that common phrases revolve around it ("Water under the bridge", "a drop in the bucket", etc.)

Baldwin County has a plethora of streams feeding into the Oconee River. The Oconee is dammed in 2 locations in or near Baldwin County, creating Lake Oconee and Lake Sinclair. Baldwin County's drinking water is pulled from the Oconee River. Our campus even boasts a hidden spring on main campus, Lake Laurel and Champion Creek at our East Campus, and a pond and Tobler Creek at Andalusia Farm. The lakes and river of Baldwin County get used to provide drinking water, as a recipient of treated wastewater, for recreation, and has been used as a source of hydroelectric power (Sinclair Dam). Students at GC already test local water for a variety of chemical and biological monitoring and study the flora and fauna of these areas through Biology, Environmental Sciences and Chemistry courses. They enjoy the natural areas of campus and Baldwin County—hiking trails, kayaking, canoeing, or just lazing in the sun or studying out at the Greenway or a variety or outdoor areas that have waterways present.

This makes water the perfect conduit for learning. Baldwin County's natural abundance in water makes it a perfect location for interdisciplinary learning within the community. Students can find relevance in classroom knowledge through solving "personally challenging yet meaningful scientific problems." This is the heart of scientific literacy, and at the heart of scientific literacy is thinking critically. Critical thinking involved in Community-based Engaged Learning allows students to "utilize science purposefully for

improving the quality of life and being a responsible citizen" (Soobard and Rannikmäe, 2011). These are skills that will benefit a student beyond their years at Georgia College, helping them make informed decisions as they take their place in society. This QEP proposes an opportunity to create an interdisciplinary program that spans academic courses, co-curricular experiences, and community engagement with water as the catalyst. It is important to note that interdisciplinary instruction is mutually beneficial. Disciplines work together to enhance learning, seeing each discipline through the lens of another (Shearer, 2007). The QEP would provide a supportive location for collaboration between faculty and staff across many disciplines at GC.

Students involved in this QEP will have the opportunity to learn more about waterways within Baldwin County through a variety of programs in a variety of disciplines. Faculty in any discipline could alter a current course to provide the current content offered through the lens of water education or create a new course focusing on the waterways of Baldwin County. This gives students and faculty the opportunity to look at learning in a new light and see connections that are present between disciplines. In addition, GC Journeys or GC 1Y/2Y courses can focus on Water Quality Monitoring, etc. Volunteer events can be offered to students and the community through monitoring events, cleanups, and recreation programs. It will link GC students to faculty and staff of GC, community members, and local organizations. Students can present their information to local government officials about the quality of our streams and rivers and present findings at the student research conference and/or other conferences. An end of semester/year Water Education Day could be offered to the community offering another outlet for student assessment.

This is a program that could be maintained over many years with little additional costs from year to year. The program could continue in a similar fashion with a new cohort of students, or the course could grow with the waterways…focusing on Milledgeville in year 1, following the Oconee River north to the headwaters; the second year, what happens upstream and how does that affect us?; year 3: follow the Oconee to the ocean (what rivers run together, challenges/history in those areas; year 4: The Estuary and wetlands: move beyond the river to the wetlands and their importance; year 5: Ocean: How have we impacted the Atlantic through our path down? What small steps can we each take that will influence the ocean that is life?

References

1. Soobard, R. and M. Rannikmäe (2011). Assessing student's level of scientific literacy using interdisciplinary scenarios. Science Education International (Vol.22, No.2), 133-144.

2. Shearer, M. (2007). Implementing a new interdisciplinary module: the challenges and the benefits of working across disciplines. Practice and Evidence of Scholarship of Teaching and Learning in Higher Education (Vol. 2, No. 1), 2-20.

Expected Outcomes
(What are the anticipated student learning outcomes related to student knowledge, skills, behaviors, and/or values and/or the student success outcomes associated with this proposed QEP?)

- Students will accomplish class objectives through Community-based Engaged Learning experiences
- Students will apply classroom concepts (scientific and otherwise) in a "real-world" application
- Students will participate in civic engagement
- Students will present and work with community members to create a Water Education Day to the community to share their knowledge
    - Students present information or hand-on activities
    - Invite community partners to have activities as well (Wastewater treatment, Georgia Power, Water Department, recreational organizations, etc.)

Student Population
(The QEP does not have to involve all students but it should include a significant and substantial portion of the student population or sub-population. Please describe which students will be primarily involved in this QEP.)
Courses would be open to applicable students (either courses for their major or electives)
GC Journeys and Co-curricular events would be open to any interested students
Special Topic courses (4950) could be offered as electives
A Study Away opportunity could allow any student the opportunity to study water at a distance location.
Perhaps a cohort of students each year/semester to work together to create Water Education Day

Strategies/Actions/Activities
(What are the major anticipated activities, programs, projects that will students, faculty, staff will engage in for this QEP?)
Different courses based on majors and those students work together to create something. This would be brainstormed through interested faculty across disciplines to create a unique experience each year for students. Options could include:

- Art based around water, including media that utilizes water and art history
- Music based around water, its relevance in creating, history, etc.
- Education Students creating curriculum based around water
- Business students working with local businesses
- Mass Comm students working with other students/community members to create advertisements/public service announcements supporting events, documentaries, or information dispersal
- ENVS/BIOL/CHEM students choosing locations to monitor
- GIVE Center works with Academic Outreach to offer Georgia Adopt-a-Stream trainings to interested students and staff.
- History students research the history of Milledgeville/Baldwin County and water's role in it
- Political science students can work with local officials about our water quality and research political events based around water in Georgia (water wars) and beyond
- IT: The technology involved to monitor our waterways
- The possibilities are limitless and faculty are creative. They could support this initiative through their own perspective of water within their discipline.

These individual actions would have a component in the community, having students learn more about the waterways of the area. Students would come together to discuss their individual courses/research and find ways to integrate their learning into an overarching experience. The semester/year would end with a culminating experience: Water Education Day, showing their findings through activities, presentations, posters, etc. Reflections throughout and at the end will allow students to make connections of course work to the community and to their lives.

Possible Means of Assessing Outcomes/Activities
(How will we demonstrate student learning and student success?)

- Course Evaluation determined by course instructors
- Completion of Georgia Adopt-a-Stream training (Visual, Chemical, Macroinvertebrate)
- Delivery of Water Education Day
- Reflections throughout
- Presentations at conferences
- Follow-up with students in a semester or at graduation to see the lasting impact of the semester/year

Anticipated Resources Needed
(What dedicated resources might this QEP need including personnel, financial, dedicated time, space, materials, etc…)

Funding would be needed to assist faculty and staff with the creation of new/altered courses. Since the programming would be interdisciplinary, housing it in a neutral school focused on lifelong learning would be ideal. The School of Continuing and Professional Studies comes to mind. A coordinator for this QEP would be needed to coordinate all the pieces. Someone capable of reaching out into the community and working with the many aspects on campus. Supplies will need to be purchased for the community events and for courses. Transportation to local waterways for students would also be needed. However, many of these resources could be acquired through internal GC Journey mini-grants, faculty research grants, and Student Government Association Bills, as well as through external grants from the EPA (https://www.epa.gov/ground-water-and-drinking-water/drinking-water-grants).

File uploads