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Institutionalizing Undergraduate Research - 2012 Progress Report

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INSTITUTIONALIZING UNDERGRADUATE RESEARCH

PROGRESS REPORT

July 2012

Project Period:

August 2010 – June 2012

GEORGIA COLLEGE

GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY

Cover photo: pixel collage of Dr. Bob Chandler's students (BIOL 4770: Field Ornithology course; Spring 2011)
Photo credit: Linda Chandler, adjunct faculty and Exhibit Designer at the GC Natural History Museum, Department of Biological & Environmental Sciences

Georgia College and twenty-two teams from other COPLAC institutions participated in the 2011 CUR *Institutionalizing UR Workshop* at UNC-Asheville

institutionalizing undergraduate research

June 2012

DEVELOPING FACULTY CAREERS THAT INVOLVE UNDERGRADUATES AS RESEARCHERS

FACULTY FOCUS

Undergraduate Research Initiative

by Rosalie A. Richards

This past year, Georgia College launched an Undergraduate Research Initiative aimed at institutionalizing undergraduate research (UR). The initiative team included **Ryan Brown (math), Hauke Busch (physics), Robin Lewis (grants), Kalina Manoylov (biology),** and **Rosalie Richards (chemistry)**. The STEM faculty team was chosen to participate in the Council on Undergraduate Research's *Institutionalizing Undergraduate Research Workshop* at COPLAC last June. Although the workshop focus was on STEM disciplines, the GC team developed plans for student research and creative activity across all disciplines. The first-year action plan focused on mobilizing faculty to examine research practices and policies and to implement plans for elevating student research at GC.

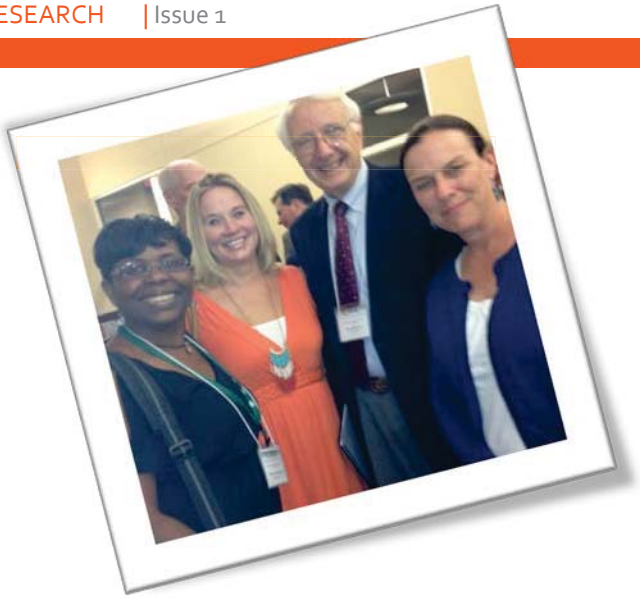
During the *Undergraduate Scholarship Symposium* on Jan. 28, 2012, nine departmental teams developed action plans for research and creative activity. Pictured below is a team from biology, marketing, and psychology.

Faculty panel invited to COPLAC

A team of Georgia College faculty engaged an audience of faculty and students during a poster session and open discussion on undergraduate research at the 2012 COPLAC Conference during June 22-23.

English professor Katie Simon (center) presents posters on integrating UR into curricula at the COPLAC Conference.

The team comprised of faculty from diverse disciplines at Georgia College: **Larry Bacnik (education)**, **Rebecca McMullen (education)**, **Stephanie McClure (sociology)**, **and Katie Simon (english)**.The conference was hosted at the University of Virginia-Wise.

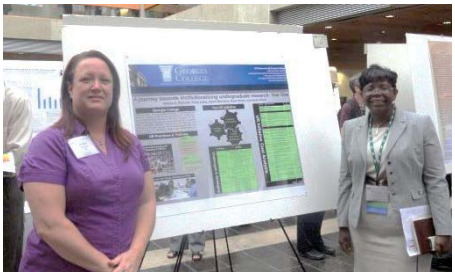


(left) Dr. Rebecca McMullen describes her experiences as a member of the Mentoring Teaching Circle to a COPLAC Conference participant during the Georgia College workshop session.

(right) Dr. Dave Brown, COPLAC founder, poses with Drs. Rosalie Richards (left), Stephanie McClure, and Katie Simon at the 2012 COPLAC Conference. Brown served as interim president of Georgia College during the 2003-04 academic year.

Georgia College at CUR

The Council on Undergraduate Research hosted its 14th Biennial Conference at the College of New Jersey on June 23-26, 2012. Robin Lewis, director of the Office of Grants & Sponsored Projects, and Rosalie Richards, director of the Science Education Center, represented the Georgia College Undergraduate Research Initiative Committee at the conference.



15th Annual Student Research Conference

by Stephanie McClure and John Bowen

The annual conference showcased students' creative research, ranging from scientific experimentation and service learning to literary criticism, case-study design and artistic expression. The 2012 conference was the largest combined student research conference and showcase on campus. Presentations ranged from oral, poster, performances, readings, civic engagement work, capstone portfolios, community-based and service-learning projects.

Jeffrey Ivie, senior chemistry major, conducts research in his laboratory.

A total of 378 students made 188 undergraduate presentations and 29 graduate research presentations, an 8.5 percent increase from last 2011.

Immediately following the conference, Georgia College hosted COPLAC's Southeast Regional Undergraduate Student Conference. Students from five colleges presented, including Georgia College.

FAST FACTS

306%

increase since 2006 in the number of student research presentations at the 2012 student research conference

Mentor Awards 2011-12

Congratulations to the following undergraduate research mentors!!

Elissa Auerbach (art)
Karen Bendersky (psychology)
Scott Butler (kinesiology)
Tsu-Ming Chiang (psychology)
Catrena Lisse (chemistry)
Kalina Manoylov (biology)
Stephanie McClure (sociology)
Lana McDowell (government)
Julia Metzker (chemistry)
Sam Mutuuti (environmental science)

GEORGIA COLLEGE
GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY

FOR NEWSLETTER INFORMATION

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Georgia College aspires to graduate students with creative and problem-solving dispositions that prepare them to be the next leaders of the free world. As the state's designated public liberal arts university, Georgia College connects teaching excellence with learning beyond the classroom to provide unique undergraduate research experiences for students. A small student to faculty ratio coupled with student-centered faculty provides a platform for a faculty-mentor to engage student-scholars in inquiry investigations that make an original intellectual or creative contribution to the discipline.

Yet, the number one obstacle to institutionalizing undergraduate research as rated by our faculty surveys is time. In addition to national best practices in undergraduate research, Georgia College has several excellent models already working on campus that advance and raise the intellectual possibilities of students and faculty. An example of research excellence hails from the psychology department where one course of the 4/4 load is undergraduate research. Plus, *US News and World Report* lists Georgia College's psychology major as one of the most popular in their rankings. Similarly, the sociology program model rotates a course in undergraduate research among faculty. The College of Business teaching load policy is 3/3 with time allocated for research and service. As a result, students matriculating from these programs are lucrative graduates.

From our research, there are currently approximately 25 departments conducting undergraduate research at sophomore through senior levels and generated $1,059,548 in tuition for the university's exclusive use. However, elements of research investigation and creativity must be incorporated into more lower level courses with a goal of establishing a progression of increasingly independent learning by students. To promote this, our faculty, deans, provost and president must work to build campus consensus on student research: what is valued and what is realistically possible at Georgia College as a *public* liberal arts college. Our administrators must also work with faculty to reshape the tenure & promotion policies and procedures to recognize and reward faculty for involvement in research.

Therefore, the goal of this document is to provide an inaugural report on the status of Undergraduate Research at Georgia College. It was crafted by the Undergraduate Research Initiative Committee with contributions from other committees and entities on campus that support undergraduate research. We envision that this document will be a launch-pad for vibrant conversation, steeped in strategic planning and actions around what Georgia College collectively values as successful outcomes of undergraduate student development.

Undergraduate research is being raised as a Council of Liberal Arts Colleges (COPLAC) distinctive. Therefore, we believe that Georgia College has the potential to become a pioneer institution of engaged learning among our USG and COPLAC institutions. We foresee our current "islands of student research excellence" merging into an "continent of research excellence" by carefully advancing a strategic agenda for undergraduate research that can transform the intellectual climate of our university. It is our hope that this report will bring visibility to viable but untapped medium of engaged learning that has the unique potential to respond to the fiscal and reputational interests of Georgia College. We look forward to working with you to institutionalize undergraduate research.

Respectfully,
Rosalie A. Richards, Ph.D., *Kaolin-Endowed Chair in Science and Professor of Chemistry*
Robin Lewis, *Director, Office of Grants and Sponsored Projects*
Kalina Manoylov, *Associate Professor of Biology*
Ryan Brown, *Associate Professor of Mathematics*
Hauke Busch, *Assistant Professor of Physics*

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EXECUTIVE SUMMARY

The goal of the Undergraduate Research Initiative is to make undergraduate research a priority at Georgia College and a key element of its culture. This report was crafted by the Undergraduate Research Initiative (URI) Committee. The URI committee was charged in 2010 to study, investigate, and implement practices and policies that lead to institutionalized best practices in faculty-student collaborations through undergraduate research and creative activity. The successes, challenges, opportunities and recommendations highlighted herein are faculty-driven and faculty-led. They respond to the critical need to bring attention to undergraduate research as a high impact pedagogy that has the potential to transform the intellectual climate of Georgia College.

Undergraduate Research and Georgia College: Mission, Vision and Quality Enhancement Plan

Undergraduate Research is quickly becoming a signature feature of public liberal arts colleges and when implemented well, supports Georgia College's objective of graduating students with creative, innovative and problem-solving dispositions that prepare them to be the next leaders of the free world. All but one of the themes of the Vision and Quality Enhancement Plan (VQEP) could be enhanced and supported by undergraduate research. In turn, this would position Georgia College to be "a university of high academic quality, characterized by *engaged, meaningful learning experiences*, *both in and beyond the classroom".* Thus, we anticipate that undergraduate research will be a priority in the QEP course of action.

Background

In 2010, the COPLAC consortium was invited to participate in an *Institutionalizing Undergraduate Research in STEM* project sponsored by the Council for Undergraduate Research (CUR) and funded by the National Science Foundation. A clear objective of the consortium's work was to advance *undergraduate research as a COPLAC distinctive*. To prepare for the intensive three-day working conference in June 2011, the URI committee met over the course of FY11 to initiate a self-study on the status of undergraduate research and associated practices at Georgia College (Appendix I). The committee included Ryan Brown (mathematics), Hauke Busch (physics), Robin Lewis (grants and sponsored projects), Kalina Manoylov (biology), and Rosalie Richards (chemistry, committee chair). Although the COPLAC project was STEM-focused, the committee directed its efforts on student research and creative activity across all disciplines at Georgia College.

The resulting white paper, *A Vision for Undergraduate Research (2011)*, was crafted by the committee in response to best practices learned at the conference at UNC-Asheville. The white paper was presented to Dr. Sandra Jordan, former Provost, as a recommendation for her consideration (see Appendix II, III). A summary of the activities and outcomes of this first set of recommendations is presented in the table below.

Summary of Successes: Action Plan 2011-14

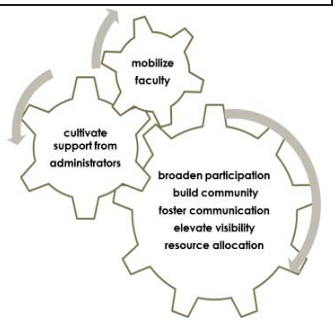
The initial action plan crafted in 2011 was motivated by the large number of existing elements and practices in undergraduate research at Georgia College but undermined by a parallel lack of shared mission, organization, coordination, inventory, and assessment. A précised version of the action plan is displayed in Table I.

Table I: Undergraduate Research Initiative Action Plan and Outcomes: 2011-14

Short/Mid-Term Goals (within 3 months)			
Goal	**Activity**	**Benchmark**	**Outcome**
1.1: develop white paper and present recommendations to Provost	-propose a vision and recommendations for engaged learning via student research at Georgia College	administrator support established and on-going	- *A Vision of Undergraduate Research at Georgia College* was presented to the Provost - discussions of a proposed *Center for Engaged Learning* to include student research/creative activity
Mid-Term Goals (within 1 year)			
2.1: expand lead team to include cross-disciplinary faculty champions of undergraduate research	-Teaching Circles -Undergraduate Scholarship Symposium -Faculty surveys	faculty mobilized around student research through professional development opportunities and faculty surveys	- approx. 20% faculty from 14 programs actively engaged in promoting student research - departmental action plans for advancing student research - inventory of successes, practices, and obstacles to student research
2.2: identify/allocate resources to hire a graduate assistant; develop assessment plans for the research initiative	-hire graduate assistant -collaborate with Center for Program Assessment and Development to develop assessment plan	graduate assistant hired; collaboration established with CFPD; assessment plan under development	- Provost vetoes hire of graduate assistant; suggests that a full-time staff position is required for coordination
2.3: build a web site to function as a *virtual* Center for Undergraduate Research	-graduate assistant to build web site framework and populate site with pertinent information	elevated visibility and communication on student research; medium for data collection established; centralized and coordinated student research activities	- efforts focused faculty development and on hiring Director for Engaged Learning and Coordinator of Undergraduate Research
Long-Term Goals (within 3 years)			
3.1: establish a plan for sustaining UR	- craft student learning outcomes for research - develop rubrics and action plan for implementing outcomes	learning outcomes for student research crafted; plan for sustaining student research developed; implementation plan in place	- faculty/staff team adopted **AAC&U's Values Rubrics** for learning outcomes during the IC-bG Summer Institute - goal is for learning outcomes to drive all strategic planning and activities around student research
3.2 establish a *Center for Undergraduate Research*	-identify best practice models of centers for undergraduate research -conduct surveys and analyze data on faculty needs -submit proposal for consideration -draft job description; hire center director	funding for a director or coordinator of undergraduate research approved and a job description crafted; search process in place	- new *Center for Engaged Learning* approved and real estate under renovation - screening committee (chaired by Richards) made three candidate recommendations for center director - center director will also function as Coordinator of Undergraduate Research

The 2011-14 goals of the action plan embraced three broad outcomes that *focused on the faculty*:

(1) build community among faculty around undergraduate research;
(2) broaden participation by faculty; and
(3) leverage (already enviable) support from administrators to promote a strategic agenda for faculty-student collaborations in research that align seamlessly with student learning outcomes and career advancement of faculty mentors at Georgia College.



The outcomes of the initiative during the 2011-12 academic year clearly show that Georgia College has realized a significant return on a $7,250 investment (Appendix IV). Plus, the outcomes in year one of implementation have already addressed, to some degree, a number of goals identified in year three. These include:

a) a grassroots movement among faculty around issues of student research
b) a year-long faculty professional development on best practices in undergraduate research
c) action plans to advance student research developed by 14 academic programs
d) faculty presentations on institutionalizing undergraduate research at Georgia College, at the USG Engaged Learning Conference, the 2012 COPLAC Conference and the 2012 CUR Biennial Conference
e) hiring of a Coordinator of Undergraduate Research to be housed in the Center for Engaged Learning.

In addition, URI committee members collaborated with several campus entities to boost other undergraduate research practices. This practices complemented the work of the initiative:

a) the annual Student Research Conference (15th year)
b) student research publications at Georgia College (*The Corinthian, The Peacock's Feet)*
c) Mentor Awards (3rd year of awards recognizing faculty mentors)
d) a new university-wide Research Scholars Program (to be launched in fall 2012), and
e) formalized student research practices such as *React Desk*, the *Chemistry and Physics Scholars Programs*, an increase in proposal applications to support student research and travel, etc.

In June 2012, chairs of research initiatives at participating COPLAC institutions were invited back to a Follow-Up Workshop sponsored by CUR at the University of Virginia-Wise. Richards, URI chair, presented a well-received 10-minute progress report that discussed successes realized and challenges faced by Georgia College in forwarding the institutionalization action plan (Appendix V).

The 2012 COPLAC Conference immediately followed the CUR workshop. Administrators, faculty, students of COPLAC schools attended the conference. At the conference's opening reception, each initiative chair was required to present a three-minute synopsis of an accomplishment, an aspirational goal and one challenge to representative administrators. Richards presented these to the audience but since Georgia College is currently transitioning top-level administration, neither Provost nor President was present.

Summary of Opportunities: updated Action Plan - 2012-15

As a result of the aforementioned successes and concomitant challenges, a new action plan was crafted (2012-15; Appendix VI). It provides a second set of recommendations for consideration. This plan focuses broadly on policy development and sustainability (Table II), and specifically aims to:

(1) establish a university-wide *Research Council* comprised of cross-disciplinary faculty, staff and students across disciplines
(2) develop an implementation action plan for adopting AAC&U's learning outcomes for student research
(3) establish a *Research Minor* at Georgia College.

Since Georgia College has recently hired Dr. Steven Jones as the first Director of Engaged Learning and Coordinator of Undergraduate Research beginning August 1, 2012, the URI Committee is anxious to engage in conversations with Dr. Jones on the undergraduate research agenda.

Table II: Undergraduate Research Initiative Action Plan: 2012-15

Short/Mid-Term Goals (within 3 months)			
Goal	**Activity**	**Benchmark**	**Anticipated Outcomes**
1.1: develop new action plan and present to university administrators and coordinator of undergraduate research	-craft new action plan for 2012-15 -make appointments to meet with university administrators (interim President, Provost, Assoc. Provost)	administrator support established and on-going	- *Action Plan 2012-15* was presented to administrators - fiscal support and resources to elevate UR established
1.2: nurture faculty champions of undergraduate research	-Teaching Circles -Undergraduate Scholarship Symposium; invite CUR consultants -Faculty surveys	grassroots movement among faculty around undergraduate research; mobilize new faculty through professional development opportunities	- approx. 30% faculty actively engaged in student research - more departmental action plans for advancing student research - inventory of successes, practices, and obstacles to student research
Mid-Term Goals (within 1 year)			
2.1: formalize communication practices to elevate the visibility of undergraduate research as engaged learning	-establish a student research inventory and data collection system -identify and communicate status of UR at Georgia College -establish communication outlets for UR (e.g. web site, publications, GC Communications, etc.)	student achievement through research visible at local/state, national and international venues; student research becomes part of the institutional vocabulary	- branding of student research as a GC distinctive - increased institutional self-esteem - improved indicators of academic, fiscal and reputational success such as statewide and national rankings (e.g. *Top Public Schools* and *Liberal Arts Colleges, COPLAC)* - invitations to participate in dialogue on student research - requests to participate in invitation-only applications (e.g. HHMI, Carnegie classifications, Research Corporations, CUR, etc.)
2.2: establish and/or formalize practices/policies in undergraduate research	-establish a Research Council -develop an action plan for implementing learning outcomes	policies and procedures that advance the institutionalizing of undergraduate research	- processes, policies and procedures respond to GC's model for UR how is valued by disciplines and at the institution
Long-Term Goals (within 3 years)			
3.1: establish a *Minor in Research*	-develop an inventory of research courses -develop and present a proposal for a Minor in Research -market idea and develop buy-in at all levels: admin, faculty, staff and students	build capacity in UR through university-wide strategic envisioning processes to elevate faculty-student collaborations and faculty mentoring as an curricular distinctive	- undergraduate research is branded as an academic distinctive at GC - courses and a minor degree as sustainability - level of institutionalization raised

Integrating Undergraduate Research into the Curriculum: challenges and opportunities

One goal of the undergraduate research initiative at Georgia College is to develop faculty careers that involve undergraduates as researchers. We recognize the tension between faculty workload at a predominantly undergraduate institution and faculty maintaining a diverse portfolio of professional development. We argue that a well-conceived strategic envisioning process for integrating undergraduate research into the curriculum will help the faculty view teaching, scholarship and service as one and the same.

From our research, there are currently approximately 70 faculty in 25 departments representing about 60% of university programs conducted senior capstone, internship, and research-intensive courses. In Spring 2011 alone, 275 students were enrolled in 127 research-type courses, generating tuition/class revenue of

$526,900!! The majority of these courses are taught as **overloads**. Now is the time to acknowledge the importance of undergraduate research and validate the work of the faculty and students.

Final Thoughts: Summary of Challenges

The Undergraduate Research Initiative Committee recognizes the following challenges as opportunities to pioneer we forge ahead:

(a) How will the university work as a collective to define who we are in terms of our possibilities through undergraduate research and creative activity? What is our public liberal arts model, how do we plan to achieve it, and how is it being communicated? [*Who are we in terms of student research*?]

(b) What are Georgia College's specific and seamless learning outcomes for faculty-student collaborations through undergraduate research/creative activity? How are these being measured? What will our assessment tell us about our students' academic achievement and potential for success? [*How do we know that our faculty-student collaborations in research are increasing the intellectual possibilities of our students and faculty*?]

(c) How is undergraduate research and creative activity helping Georgia College achieve its fiscal and reputational interests? [*recruitment, retention, accreditation, local, state/national distinction*]

Acknowledgements

The URI Committee is grateful to the following for supporting the goals and activities of the initiative: Academic Affairs Teaching Circles Grant Program, Council of Deans, Office of Grants and Sponsored Programs, the Innovative Course-building Group, Center for Excellence in Teaching and Learning, the Science Education Center, the Council of Undergraduate Research, and the Council of Public Liberal Arts Colleges.

Resources Resulting from AY 2011-13 Action Plan

Teaching Circle resources:

http://math.gcsu.edu/~ryan/tc
http://undergraduateresearchmentoring.blogspot.com

URI Initiative documents:

Undergraduate Research FY11 at http://www.dropbox.com

APPENDIX

GEORGIA COLLEGE
GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY

August 12, 2010

RESPONSES TO QUESTIONS FOR COPLAC NSF/CUR CONSORTIUM PROPOSAL

A. List this person's role at the institution (if someone other than yourself).

Rosalie A. Richards is professor of chemistry and Kaolin-Endowed Chair in Science at Georgia College. Dr. Richards is director of the Science Education Center, a resource facility dedicated to excellence in science teaching and learning. She has led several initiatives at Georgia College including *Science to Service*, an academic program of distinction aimed at advancing the interest, engagement, and understanding of science by people of all backgrounds. Richards has mentored undergraduate and high school students in chemical sciences research since 1996.

B. <u>Describe how this person's position will help effect change</u>.
A statement of how you would be able to lead change in the area of UR at your institution. They are looking for commitments to institutionalize UR on our campuses and as a consortium.

Dr. Richards will lead a taskforce that (1) advocates for institutionalizing UR at Georgia College; and (2) gathers evidence or potential sources of evidence that support the need to address the clear link between UR and the university's liberal arts mission.

The taskforce will be comprised of the team that participates at the proposed NSF/CUR COPLAC-consortium Workshop plus other faculty members and student representatives. In addition to any action plan initiated at the proposed Workshop, part of the evolving and continuous work of this taskforce will be the submission of a proposal to the Provost highlighting recommendations/action items to promote institutionalization of UR; that is, institutional study and strategies for moving the needle of UR at Georgia College.

To carry out this proposed agenda, the work of the taskforce might also include data gathering on

- the current status of UR at Georgia College;
- barriers (real and perceived) to UR at Georgia College collected from faculty and students;
- best practices of UR across the nation including (i) models for integrating research preparation and practice into departmental curricula; (ii) centralized and integrated coordination of UR – infrastructure, road maps for faculty and students interested in UR, funding opportunities, showcase opportunities (student conferences, publications,), etc.; (iii) reward system for faculty mentors; (iv) broadening participation; (v) administrative support; (vi) sustainability, etc
- best practices at Georgia College;
- a plan for the role of assessment;
- implementation strategies; and
- a timeline.

C. <u>Describe this person's working role in relation to the system/consortium</u>.

Dr. Richards had been designated by the provost to serve as liaison with COPLAC on this initiative.

1. **An example of how your campus provides advanced experiences for students engaged in UR.**
   Georgia College provides advanced experiences in UR, including (a) required capstone courses of all students; (b) the Experiential Transcript that provides an official record of student service learning experiences including UR activities; (c) the annual Student Research Conference for students to showcase research findings; (d) *The Corinthian*, the university's student research journal; (e) faculty research grants program; and (f) departmental initiatives, such as the *Chemistry Scholars Program*

2. **An illustrative UR initiative at campuses that are just starting in UR.**
   An illustrative UR initiate at Georgia College is the *Chemistry Scholars Program* initiated in 2003 at the Department of Chemistry, Physics and Astronomy to encourage and promote UR in chemistry. Each chemistry faculty member receives a first-year research scholar with outstanding academic record in the major to participate in research throughout her academic tenure with that mentor. Scholars are chosen based on an application and review process. Each scholar receives an award of $500 per year to purchase materials/supplies and/or for travel to present at a scientific conference. Scholars must participate in the annual GCSU Student Research Conference and in the annual department Academic Showcase. Funding comes from a small department endowment and monthly contributions by each faculty mentor to the endowment. A similar program is underway in physics.

3. **An appraisal of the current state of UR at your campus.**
   A. Georgia Colleges values and encourages UR. This is evident by the following (conservative) indicators collected for the past academic year.

INDICATOR	No.
Total no. presenters at the 2010 Georgia College Student Research Conference	258
Total no. faculty sponsors of presenters at the 2010 Georgia College Student Research Conference	60
Total no. presentations at the 2010 Georgia College Student Research Conference	191
Total no. STEM presentations at the 2010 Georgia College Student Research Conference	46
Total no. submissions to the Spring 2010 *Corinthian*: Georgia College's student research journal	26
Total no. published papers in the Spring 2010 *Corinthian*	14
Total no. published STEM papers in the Spring 2010 *Corinthian*	1
No. undergraduate presentations at regional and national STEM conferences	18
No. undergraduates attending regional and national STEM conferences	32
STEM publications co-authored by undergraduates (external journals)	5
STEM capstone experiences	112
STEM internships (external)	8

   B. Although UR at Georgia College is thriving, inconsistency across STEM disciplines exist. A survey of full-time STEM faculty rate UR as excellent to poor depending on the department polled. Therefore, a framework for equitably promoting and supporting undergraduate research is lacking, underscoring the need for this project.

4. **Any barriers to UR at your campus.**
   STEM at Georgia College is represented by the following disciplines: Biological & Environmental Sciences, Chemistry & Physics, Computer Science, and Mathematics.
   FACULTY: A survey of 38 (of 52 full-time) STEM faculty revealed that there is desire by many to conduct UR. The survey also revealed that STEM faculty ranked *time* (teaching load/advising) and *administrative support* (reward system, release time, seed funding) as the top two barriers to UR. Other identified barriers included limited resources, grant-writing expertise, and coordination of UR at Georgia College.
   UNIVERSITY: At the university level, one clear barrier is lack of coordination of UR efforts, resulting then, in the unclear goals and outcomes for UR at the university, departmental, and student levels.

5. **What you see as the outcomes for your faculty who participate in the workshop.**
   As a result of the workshop, we envision that the faculty team will have crafted the beginnings of a plan that addresses, enhances, and/or supports the following:
   a. a value system for UR by administration including
      i. reward/recognition (including tenure/promotion)
      ii. time (release, seed funding, etc.)
   b. student learning goals
   c. integration of research methods into courses/curricula
   d. recruitment of higher-quality students
   e. funding options
   f. interdisciplinary interaction
   g. faculty innovation
   h. consistency among participants
   i. broadened participation
   j. coordination of UR in STEM
   k. sustainability

6. **What are the future goals for UR on your campus?**
   a. University goals
      i. *Administration/College*: reward system tied to tenure and promotion; centralized and coordinated infrastructure for UR (office of UR); sustainability measures; increased funding options and indirect recovery; state-wide/national distinction
      ii. *Departments*: integral component of program goals; system for modification of teaching loads to support research-activities; broadened participation by faculty
      iii. *Courses*: increased integration of research methods into curricula;
   b. Faculty goals
      i. *Increased faculty leadership in innovations*: research ideas, grants, publications, resources, collaborations, patents, presentations, invitations, etc.
      ii. *Increased cross-disciplinary research interactions*
      iii. *Strengthen research base*: improved teaching base; more marketable students; students better prepared for graduate programs/work (skills); attract higher-quality students to research activities; increased reputation;
   c. Student goals
      i. *Better prepared students:* increased knowledge, skills, and abilities
      ii. *Increased networking opportunities with faculty, internship mentors, and others:* better resume; better letters of recommendation; improved graduate/job opportunities, increased peer-peer connections, etc.
      iii. *Build confidence*: improved written and oral communication skills; increased showcase opportunities; travel to new places; broader exposure to the culture/nature of discipline; paid opportunities/internships; new experiences;
      iv. at national level (funding for travel, publications)

7. **How will you select individual team members (from STEM disciplines) for the workshop?**
   STEM department chairs will advertise this opportunity to faculty. In addition, chairs will identify faculty members who have strong interests in UR in order to solicit diverse representation from the four STEM departments. Interested faculty will be asked to provide a brief response to "*What do you see as your role in effecting change in UR at Georgia College*". Participants will be chosen by a team consisting of chairs, provost, lead (Richards) and will be based on departmental representation and responses to the aforementioned question.

Council on Undergraduate Research

Learning Through Research

PRE-CONFERENCE INVENTORY QUESTIONS FOR ASSESSMENT

Instructions:

Your institutional team should meet as a group to respond to the questions in this baseline survey about undergraduate research (UGR) on your campus. The information you provide will enable us to most accurately address your campus needs during our workshop presentations and discussions.

Please check all that apply. If your team is uncertain about or cannot agree on the answer to a question, please answer with a question mark. Thank you

Section A: Campus Mission and Culture

Check all that apply

UGR is included, and/or its value expressed, in the following institutional documents:

- ☒ 1. Mission statement
- ☒ 2. Core learning outcomes
- ☒ 3. Strategic plan
- ☐ 4. Reappointment, Tenure, and Promotion document

My institution has a clear articulation of the role and value of research, scholarship and creative activity:

- ☐ 5. For faculty
- ☐ 6. For graduate students
- ☐ 7. For undergraduate students

8. UGR is an important component of my institution's culture. *(Select one)*

☐ Strongly agree ☐ Agree ☒ Undecided ☐ Disagree ☐ Strongly disagree

Section B: Administrative and Campus Governance

Check all that apply

- ☐ 1. UGR across the campus is centralized or coordinated through a dedicated unit.
- ☐ 2. My campus has an 'undergraduate research office'.
- ☒ 3. My campus has a 'faculty development office'.
- ☒ 4. My campus has a 'faculty mentoring' program for new and/or 'newish' faculty.
- ☐ 5. My campus has a UGR campus committee.

6. My institution has a clear articulation of the role and value of research, scholarship and creative activity. *(Select one)*

☐ Strongly agree ☐ Agree ☒ Undecided ☐ Disagree ☐ Strongly disagree

Section C: Grants, Contracts, Sponsored Research

Check all that apply

☒ 1. My campus has an Office of Sponsored Research that assists faculty members in seeking external funding and assisting/submitting external research proposals.

☒ 2. My institution provides matching funds when required for external grants.

☒ 3. My institution has an indirect cost policy and structure.

☒ 4. My institution returns a portion of grant indirect costs to individual principal investigators or departments.

Section D: Recognition and Promotion or UGR

Check all that apply

☒ 1. My institution has a campus-wide celebration of UGR (i.e symposium, research day, etc.).

☒ 2. My campus publishes an undergraduate journal. ☐ Electronic ☐ Paper

3. My institution recognizes faculty via the following awards (check all that apply):

☒ Teacher of the Year ☒ Faculty Scholar of the Year

☐ Teacher-Scholar of the Year ☐ Mentor of the Year

Select one

4. My institution promotes UGR in its admissions efforts for attracting prospective students.

☐ Strongly agree ☒ Agree ☐ Undecided ☐ Disagree ☐ Strongly disagree

5. My institution promotes UGR in its advancement/development efforts for attracting and cultivating prospective donors.

☐ Strongly agree ☐ Agree ☒ Undecided ☐ Disagree ☐ Strongly disagree

Section E: Extent of Academic Involvement in UGR

Circle the percentage that best approximates the extent to which these broad academic sectors participate in UGR at your institution.

STEM fields					
1. Physical Sciences	100%	(75%)	50%	25%	0%
Life Sciences	100%	(75%)	50%	25%	0%
2. Mathematical & Computational Sciences	100%	75%	50%	(25%)	0%
3. Social Sciences	100%	75%	50%	(25%)	0%
4. Engineering and Technology	100%	75%	50%	25%	0% N/A
Arts and Humanities					
5. Arts	100%	(75%)	50%	25%	0%
6. Humanities	100%	(75%)	50%	25%	0%
Professional					
7. Education	100%	75%	(50%)	25%	0%
8. Business	100%	75%	50%	(25%)	0%
9. Allied Health	100%	75%	50%	(25%)	0%
Other					
10. _____	100%	75%	50%	25%	0%
11. _____	100%	75%	50%	25%	0%

Section F: Student Involvement in UGR

Check all that apply

1. On my campus, the following students have access to and participate in UGR *(check all that apply)*:

- ☐ All students
- ☐ Honors students
- ☒ Senior thesis students
- ☐ At-risk students

2. Students at the following class ranks at my institution have access to and participate in UGR *(check all that apply)*:

- ☒ First year
- ☒ Sophomore
- ☒ Junior
- ☒ Senior

3. Students participate in UGR in the following ways *(check all that apply)*:

- ☒ For academic credit
- ☐ For work study
- ☒ As volunteers
- ☐ For institutional pay
- ☒ For pay from grants or contracts
- ☒ As a pay-back for institutional scholarship support

4. My campus has special programs that target at-risk students (e.g., financially needs, underrepresented) to engage in UGR.

- ☐ Yes
- ☒ No

Section G: Curriculum and Academic Program for Students *Check all that apply*

- ☐ 1. UGR is a campus-wide curricular requirement.
- ☒ 2. Students can receive academic credit for UGR.
- ☐ 3. UGR is linked to a graduation requirement for students.
- ☐ 4. UGR part of the required curriculum of individual departments.
- ☐ 5. My institution has a "research-rich" curriculum.
- ☐ 6. My institution provides research-based departmental honors.
- ☒ 7. My institution includes notation on student transcripts for participation in UGR.

Section H: Involvement with National Professional Organizations *Check all that apply*

- ☒ 1. My campus has sent students to the NCUR conference (National Conference on Undergraduate Research) or disciplinary conferences.
- ☒ 2. My campus is a member of the Council on Undergraduate Research (CUR).

Section I: Continuous Improvement and Assessment *Check all that apply*

- ☒ 1. My institution has an 'Assessment Office.'
- ☒ 2. My institution has a regular 'Academic Program Review' process.
- ☒ 3. My institution participates in national-level assessment surveys (e.g., NSSE, FSSE, CLA).
- ☐ 4. My institution has highlighted UGR for its accrediting body.

Section J: Faculty Roles, Recognition and Rewards	*Select One*				
	Always	**Often**	**Sometimes**	**Rarely**	**Never**
1. Faculty 'research/ scholarship/ creative work' is included in faculty workload.	❒	❒	❒	❒	☒
2. Faculty 'research/ scholarship/ creative work' is included in reappointment, tenure, and promotion evaluations.	☒	❒	❒	❒	❒
3. Mentoring student researchers is included in faculty workload.	❒	❒	❒	❒	☒
4. Mentoring is included in reappointment, tenure, and promotion evaluations.	❒	☒	❒	❒	❒
5. My campus celebrates faculty research accomplishments (e.g., grants received, publications, external research awards, etc.).	❒	❒	☒	❒	❒
6. My institution has a sabbatical leave program.	☒	❒	❒	❒	❒
7. Faculty members are presented with opportunities to learn how to support UGR projects.	❒	❒	❒	❒	☒
8. Faculty and students produce co-authored scholarly products (e.g., publications).	❒	☒	❒	❒	❒
9. Co-authored scholarly products (e.g., publications) are acceptable in the promotion and tenure policy.	☒	❒	❒	❒	❒
10. When recruiting new faculty members, my campus looks for teacher-scholars who will be actively engaged in UGR.	❒	☒	❒	❒	❒
11. My institution provides differential/flexible teaching loads (semester to semester, year to year).	❒	❒	❒	☒	❒
12. New faculty members receive research start-up funds.	❒	❒	❒	☒	❒
13. Research-active faculty members have adequate space to work with students.	❒	❒	❒	☒	❒

Section K: Summer Programs for UGR	*Select One*				
	Always	**Often**	**Sometimes**	**Rarely**	**Never**
1. My campus has institutional summer undergraduate research opportunities.	❒	❒	❒	❒	☒
2. Campus housing is available for summer research students.	❒	❒	❒	❒	☒
3. Campus funds are available for summer student stipends.	❒	❒	❒	❒	☒
4. Faculty members who serve as research mentors for summer research students receive summer stipends.	❒	❒	❒	❒	☒

Section L: Institutional Grant Programs and Professional Travel	*Select One*				
	Always	**Often**	**Sometimes**	**Rarely**	**Never**
1. My campus provides funding fro UGR projects for faculty .	❒	☒	❒	❒	❒
2. My campus provides funding fro UGR projects for students.	❒	❒	❒	☒	❒
3. My campus has an internal grant program for research/scholarship/creative activity for faculty research	☒	❒	❒	❒	❒
4. My campus has an internal grant program for research/scholarship/creative activity for student research.	❒	❒	❒	❒	☒
5. My campus provides funding for professional travel to present research results by faculty.	☒	❒	❒	❒	❒
6. My campus provides funding for professional travel to present research results by students.	❒	☒	❒	❒	❒
7. My campus provides funding for travel for professional development-type meetings and conferences for faculty.	❒	☒	❒	❒	❒
8. My campus provides funding for travel for professional development-type meetings and conferences for students.	❒	❒	☒	❒	❒

Council on Undergraduate Research

Learning Through Research

CUR WORKSHOP PROGRAM
ON INSTITUTIONALIZING UNDERGRADUATE RESEARCH
WITHIN SYSTEMS AND CONSORTIA

Self-Study
To be Completed by Participating Institutions

Georgia College and State University

Part 1 – Key Issues

Part 1-A – System/Consortium-level questions

1. What does your institution hope to accomplish as a result of participation in this system-wide/consortium-wide effort to advance undergraduate research? For example, this could be learning about best-practices at your sister institutions, developing new, collaborative programs, realizing synergies in existing programs, etc.

2. What are the key elements that your institution currently has in place to contribute to advancing undergraduate research across the system/consortium?

3. Does your system/consortium culture value undergraduate research?

4. What system/consortium practices or policies exist that encourage or support undergraduate research? Please describe. This could be submitted as a narrative or a list; an annotated inventory would be particularly useful.

5. Are there system/consortium practices or policies that serve as obstacles or challenges to advancing undergraduate research at your institution?

6. If you could dream, what would you want the undergraduate research environment to look like in your system/consortium?

Part 1-B – Institution-level questions

1. What does your team hope to accomplish at the CUR Workshop and through the associated follow-up activities?
    - Identifying methods for assessing status/culture of UR at Georgia College
    - Identifying methods or assessing institutional practices in UR
    - Identifying methods for assessing value-added by UR to Georgia College
    - Identifying best practice models of UR nationally and at Georgia College
    - Identifying sustainable strategies for institutionalize hiring, reward, and recognition practices that advance UR and broaden participation by faculty and, tacitly, students

    To learn about:
        - Mechanisms toward better prepared students that graduate with increased knowledge, skills, and abilities, showcase opportunities; broader exposure to the culture/nature of discipline; internships; new experiences;
        - Best practices that elevate a culture or UR
        - Hiring, reward, and recognition practicies tied to tenure and promotion
        - Assessment measures of impact of UR
        - Centralized and coordinated infrastructure for UR
        - Resources – creative and otherwise -to support UR
        - Sustainability measures to build and sustain a thriving UR environment

2. What issues are of highest importance to your institutional team?
    - Challenges and solutions in UR including administration support - obstacles and innovative initiatives
    - Best practice models for institutions with fledgling research infrastructure
    - Evaluation of UR efforts

3. Does your institutional culture value undergraduate research? How would you describe your institutional culture?
    - Although UR is highly valued, it is not homogeneous across the university. UR at Georgia College is thriving but inconsistency across STEM disciplines exist. A survey of full-time STEM faculty rate UR as excellent to poor depending on the department polled. Therefore, a framework for equitably promoting and supporting undergraduate research is critical.

4. What institutional practices or policies exist that encourage or support <u>faculty</u> participation in undergraduate research? Please describe. This could be submitted as a narrative or a list; an annotated inventory would be particularly useful. (Examples might include awards for faculty research, recognition of faculty receiving grants, a day featuring student and faculty research efforts with oral and poster presentations, financial support for travel, reassigned time for faculty, etc.).
    - Awards for faculty research
    - Recognition of faculty receiving grants through e-mail
    - annual Undergraduate Research Conference (16 years). This is evident by the following (conservative) indicators collected for the past academic year.

INDICATOR	No.
Total no. presenters at the 2010 Georgia College Student Research Conference	258
Total no. faculty sponsors of presenters at the 2010 Georgia College Student Research Conference	60
Total no. presentations at the 2010 Georgia College Student Research Conference	191
Total no. STEM presentations at the 2010 Georgia College Student Research Conference	46
Total no. submissions to the Spring 2010 *Corinthian*: Georgia College's student research journal	26
Total no. published papers in the Spring 2010 *Corinthian*	14
Total no. published STEM papers in the Spring 2010 *Corinthian*	1
No. undergraduate presentations at regional and national STEM conferences	18
No. undergraduates attending regional and national STEM conferences	32
STEM publications co-authored by undergraduates (external journals*)*	5
STEM capstone experiences	112
STEM internships (external)	8

5. Are there any obstacles/challenges to <u>faculty</u> participation in undergraduate research? Please describe.
    - STEM at Georgia College is represented by the following disciplines: Biological & Environmental Sciences, Chemistry & Physics, Computer Science, and Mathematics. A survey of 38 (of 52 full-time) STEM faculty revealed that there is desire by many to conduct UR. The survey also revealed that STEM faculty ranked *time* (teaching load/advising) and *administrative support* (reward system, release time, seed funding) as the top two barriers to UR. Other identified barriers included limited resources, grant-writing expertise, and coordination of UR at Georgia College.

6. What institutional practices or policies exist that encourage or support <u>student</u> participation in undergraduate research? Please describe.
    - Georgia College provides advanced experiences in UR, including (a) required capstone courses of all students; (b) the Experiential Transcript that provides an official record of student service learning experiences including UR activities; (c) the annual Student Research Conference for students to showcase research findings; (d) *The Corinthian*, the university's student research journal; (e) faculty research grants program; and (f) departmental initiatives, such as the *Chemistry Scholars Program*; (f) SGA-sponsored funding for travel to present UR

7. Are there any obstacles/challenges to <u>student</u> participation in undergraduate research? Please describe.
    - At the university level, one clear barrier is lack of coordination of UR efforts, resulting then, in the unclear goals and outcomes for UR at the university, departmental, and student levels; pathways to UR- no roadmap

8. Are faculty required to conduct research for reappointment, tenure and/or promotion?
    - UR research requirement varies by department

9. Please describe the extent to which research is required. If undergraduate involvement is a defined component in any way in your institution's research requirement, please describe.

- This varies across department.

10. If you could dream, what would you want the undergraduate research environment to look like on your campus?

- hiring, reward, and recognition practices that encourage participation in UR by all faculty and majority of student body
- highly-motivated student body that recognizes the value-added by UR and engaged in cutting-edge UR
- an Office of Undergraduate Research responsible for centralized and integrated coordination
- endowed undergraduate research scholarships and research funding that supports cross-disciplinary STEM UR

→Elements at Georgia College that contribute to UR:

- A fairly new liberal arts mission
- Administrators that recognize value-added by UR
- Awards for faculty research
- Recognition of faculty receiving grants
- annual Undergraduate Research Conference (16 years)
- Office of Grants and Sponsored Projects
- Assessment office
- Center for Program Assessment and Development
- Science Education Center
- Strong interdisciplinary and cross-disciplinary collaborations

Part 2 – Pre-workshop Goals

Short-term Goals (within 1-2 years): **Identification and Evaluation**

1. to assess the status/culture of UR at Georgia College using instruments derived from CUR, COPLAC-CUR workshop, from other assessments, and via data collection
2. to assess institutional practices at Georgia College that present barriers (real/perceived) to advancing UR
3. to examine national models of best practices in UR and at Georgia College

Medium-term Goals (within 2-5 years): **Implementation**

1. to identify and implement prioritized, sustainable strategies based on evaluation products and focused on short-term-term goals that provide leverage of STEM UR efforts
2. to implement strategies for measuring the impact of UR on students, faculty, university

Longer-term goals (within 5-10 years): **Synthesis, Coordination, and Expansion**

1. to institutionalize hiring, reward, and recognition practices that advance UR and broaden participation by faculty
2. to establish centralized and integrated coordination structure to advance UR
3. to implement institutional practices that broaden participation in UR by faculty and students
4. expand the resource base for advancing UR including cross-disciplinary STEM efforts

Part 3 – One-page Institutional Profile

Instructions: On your institutional letterhead, please submit a one-page page profile of your institution that will be included in the formal meeting book and shared with all participants. Your one-page sheet should include: 1) a brief profile of your campus (e.g., total student enrollment, mission, signature programs, etc.) and 2) highlights of institution's undergraduate research programs and efforts.

Modified from Gmelch, W.H. 1993. Coping with Faculty Stress. Newbury Park, CA. SAGE Publications.

- Please find attached

GEORGIA COLLEGE
GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY

Provost and Vice President for Academic Affairs
Campus Box 24
Milledgeville, Georgia 31061-0490
Phone (478) 445-4715
Fax (478) 445-5151

Georgia College, founded in 1889, is located close to the geographical center of the state in historic Milledgeville, Georgia. As the state's designated Public Liberal Arts University, Georgia College combines the educational experience expected at esteemed private liberal arts colleges with the affordability of public higher education. The college was named a "Best Southeastern College" by *The Princeton Review* and ranked 6th by *U.S. News & World Report* in the "A Strong Commitment to Teaching" category. Georgia College offers a comprehensive program in liberal arts and sciences, business, education, and health sciences to a student body comprised of 5,699 undergraduate and 1,016 graduate students. The average SAT and ACT scores for incoming first-year students in Fall 2010 was 1156 and 24.19, respectively. Among the student population, 60.2% are female and 85.2% white. Most students are residents of Georgia as well as other states and the campus enjoys a growing population of international students from over 50 countries. With 314 fulltime faculty, 75% with a terminal degree, the student to faculty ratio is 17:1.

"Connecting What Matters" is at the heart of Georgia College's commitment to a dynamic teaching, learning, and living environment, to public service, continuing education, technical assistance, economic development**,** and to scholarly and creative work. This is accomplished through a rigorous course of academic study combined with the following offerings:

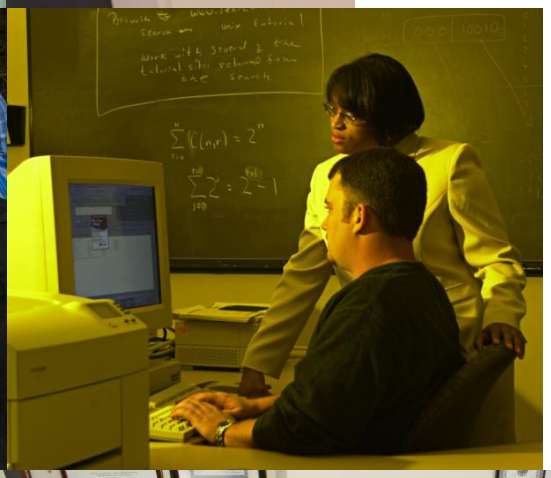
- **American Humanics Program**, an innovative, cross-disciplinary course of study that equips college and university students to become skilled professionals and leaders in the non-profit sector;
- **Georgia Education Mentorship Program** where students are matched with leaders in business, education, politics, healthcare, law, and industry;
- **Honors Program**, an integrated program of learning that extends students' study and promotes interaction with faculty through independent, collaborative, and multidisciplinary opportunities.
- **Liberal Studies** designed for students who prefer a broader and more varied approach to learning than that of the traditional single-discipline major;
- **Study Abroad opportunities** where students not only to learn about people and world cultures but also to gain greater insight in to your own skills, strengths and aspirations as a global citizen.
- **Service Learning** opportunities that reinforce classroom knowledge, connect the classroom knowledge to real world applications and enhance the total learning experience of the student;
- **Residential Learning Communities** that integrate students' academic, social, and service experiences in small community settings;
- **Undergraduate Research** enables the student to experience self-directed work that enables exploration involving inquiry, design, investigation, discovery, application, writing or performance; and
- **Volunteerism** where Georgia College students, faculty and staff are involved in campus-wide, local community, national and international volunteer efforts.

Georgia College's ***Programs of Distinction*** are academic areas of state, national, and international significance recognized by peers and students as providing distinctive niches in the academic environment.

- **Flannery O'Connor Studies** offers a personal glimpse into the life and works of one of America's best-known authors and Georgia College's most famous graduate.
- **Mentored Field-Based Cohort Model** prepares prospective teachers with real world experiences inside and outside classrooms, enabling those entering the career to have a better preparation.
- **Outdoor Education** offers a unique balance of traditional and experiential learning.
- **Creative Writing @ Georgia College** has established a record of national success and offers a Master of Fine Arts degree, Georgia College's only terminal degree.
- **Science to Serve** embraces interdisciplinary practices to engage people of all ages and backgrounds in the excitement of science and technology.
- **The Economics of Education Policy Center** provides a campus-wide focus on empirical education research to guide public policy and student service activities.

A VISION FOR UNDERGRADUATE RESEARCH AT GEORGIA COLLEGE



Rosalie Richards, Ryan Brown, Kalina Manoylov, Hauke Busch, Robin Lewis Georgia College July 20, 2011

BACKGROUND

In August 2010, Georgia College was invited participate in an *Institutionalizing Undergraduate Research in STEM* project sponsored by the Council for Undergraduate Research (CUR) and funded by the National Science Foundation. To prepare for the intensive 3-day working conference in June 2011 with other COPLAC institutions, a team of faculty and staff met over the course of FY11 to initiate a self-study on the status of undergraduate research (UR) and associated practices at Georgia College. Although the COPLAC project is STEM-focused, the team directed its efforts on UR across *all disciplines* represented at Georgia College (Malachowski, 2011).

This white paper was crafted by the faculty/staff team in response to best practices learned at the CUR-COPLAC conference. It is presented to Dr. Sandra Jordan, Provost, as a recommendation for her consideration.

BENEFITS OF UNDERGRADUATE RESEARCH

UR is quickly becoming a signature feature of the public liberal arts experience (Cech, 1999). Undergraduate students engaging in research acquire a spirit of inquiry and creativity, grow intellectually, develop leadership abilities, independence, initiative, sound judgment, persistence, alertness, and patience (Kuh, Kinzie, Schuh, and Whitt, 2010) – all of which are dispositions that lead to successful lives and high productivity (Kinkel and Henke, 2006). Moreover, strong positive correlations exist between this type of student engagement and increased student retention (Jones, Barlow, and Villarejo, 2010). UR allows faculty mentors to maintain enthusiasm, professional competence, and scholarly productivity. In several cases, the participating university gains regional, national, and international recognition and may become an institution of first choice for the best students. Collaborations beyond the campus involving current and future undergraduates have the potential of being transformational while at the same time, giving value to local communities.

MISSION STATEMENT OF SUCCESSFUL UNDERGRADUATE RESEARCH AT GEORGIA COLLEGE

Georgia College aspires to graduate students with creative and problem-solving dispositions that prepare them to be the next leaders of the free world. As the state's designated public liberal arts university, Georgia College connects teaching excellence with learning beyond the classroom to provide unique UR experiences for students. A small student to faculty ratio coupled with student-centered faculty provides a platform for a faculty mentor to engage student-scholars in inquiry investigations that make an original intellectual or creative contribution to the discipline.

GEORGIA COLLEGE'S DEFINITION OF SUCCESSFUL UNDERGRADUATE SCHOLARLY ACTIVITIES

1. **Mentorship:** collaborative; serious interactions; clear goals; focus on the student; focus on the student learning process; intellectual engagement of the student and disciplinary socialization (see attachment)
2. **Originality:** meaningful contribution by the student; should be entirely or partially novel; it is OK to reveal more questions than answers
3. **Acceptability:** employs techniques and methodologies that are both appropriate and recognized in the discipline; includes a reflective/ synthetic component that is appropriate to the discipline
4. **Dissemination:** ideally there needs to be a final, tangible product for which both the process and results are peer-reviewed, critiques, juries, judged, etc.; but we recognize that UR is a continuum between student (process centered) and outcome (product centered) activities and we value and recognize all student initiated participation in inquire in and outside of the classroom

UR AND GEORGIA COLLEGE'S STRATEGIC DIRECTIONS

A review of Georgia College's new Strategic Directions (2011-2014) indicates that clear language exists for the university to engage in and promote superior UR experiences.

Strategic Direction One: *Exemplary Undergraduate Learning Experience* - ***Build excellence and distinction in the Georgia College undergraduate educational experience consistent with the university's educational values and its undergraduate public liberal arts mission***

A plethora of compelling evidence on the benefits of UR has been published by CUR since 1990. Likewise, research by non-CUR institutions demonstrates related benefits. Texas A&M–Kingsville (TAMUK), for example, showed a 96% six-year graduation rate for participants in a formal UR program in Natural Resources and Wildlife Science versus 60% for the control group (Kinkel and Henke, 2006). Participants possessed an average pre-junior year GPA of 2.586 while the control group started out slightly ahead with a 2.591 GPA. However, by graduation, UR participants ended with a GPA of 3.025 compared to a 2.632 GPA by the control group. TAMUK participants also reported being better prepared for

employment, better organized, and having more clarity on the applicability of their schoolwork to the world of work. Since increased retention rates, graduation rates, and a high quality of education are priorities at Georgia College, research suggests that institutionalized UR will have a positive impact on these areas.

Strategic Direction Two: *Respected provider of Graduate Programs in the Middle Georgia Region* - ***Strengthen the university's graduate mission, which is to deliver graduate programs responsive to regional workforce needs***
Participants in the TAMUK study also reported an increase in confidence in their abilities as potential graduate students. In addition, more participants applied to graduate programs, with three times as many applying within one year of graduation, compared to the control group. The matriculation of well-prepared students to other universities will enhance our overall academic reputation.

Strategic Direction Three: *Acclaimed Academic Programs/Distinctive Colleges & Departments* - ***Enhance the academic reputation of Georgia College based on recognition of exemplary academic programs and the distinctive qualities and achievements of its academic colleges and units***
Georgia College has the potential to be renowned for UR among USG institutions. However, since UR is not institutionalized, our academic programs fall short of their full capabilities. Scholarly achievements such as publications, creative work, and other activities will provide distinctive, promotional materials in Georgia College's continuous campaign for national recognition.

Strategic Direction Four: *Strong Partner for Creating a Better Community and State* - ***Strengthen community and regional ties through programs, partnerships, research, and service that enhances economic, educational, and cultural opportunities***
UR provides a platform for faculty and students to contribute to their disciplines while at the same time, engage in partnerships that provide diverse, enriching services and experiences that build capacity in our regional communities.

Strategic Direction Five: *Talented, mission-invested faculty and staff* - ***Recruit and retain highly qualified faculty and staff who are invested in the university's mission, its students, and its commitments to reason, respect, and responsibility***
UR is a form of research support that provides multiple benefits to the faculty, staff, and students at Georgia College. However, UR is a large, undervalued portion of faculty load. Institutionalizing UR will lead to recognition of faculty time, talent, and scholarly contributions which, in turn, will elevate the institution's reputation when recruiting faculty and staff.

Strategic Direction Six: *Effective Fiscal and Operational Performance* - ***Continue to seek operational performance improvement and effective fiscal strategies, including the diversification of funding support***
UR will lead to friend- and fund-raising, grant-writing, and grants for research and scholarship funding. From discussion with faculty about UR, we have highlighted fiscal and operational areas that would benefit from improvement.

STATUS OF UNDERGRADUATE RESEARCH AT GEORGIA COLLEGE

A preliminary inventory of UR at Georgia College revealed that several practices and policies *encourage or support* student participation in UR. These include (a) required capstone courses by all students; (b) the Experiential Transcript that provides an official record of student experiences beyond the classroom including UR; (c) the annual *Student Research Conference* to showcase research findings (16 years); (d) *The Corinthian*, the university's student research journal; (e) *The Peacock's Feet*, the university's undergraduate literary journal; (f) a faculty research grants program; (g) departmental initiatives, such as the *Chemistry Scholars Program*; (h) SGA-sponsored funding for travel to present UR; and (i) an annual *Excellence in Research and Publication Award* for faculty.

Elements at Georgia College that contribute to UR include (a) a fairly new liberal arts mission; (b) recognition of value-added by UR by administrators; (c) a faculty research grants program; (d) recognition of faculty receiving grants; (e) strong interdisciplinary and cross-disciplinary collaborations; (f) an Office of Grants and Sponsored Projects; (g) an Office of Institutional Assessment; (h) a Center for Program Assessment and Development; (i) a Science Education Center; (j) an Office of Academic Engagement; (k) the Honors Program; and (l) a new, flexible faculty evaluation process that can weigh mentorship.

INSTITUTIONAL CHANGE

Academically Adrift (Arum and Roska, 2011) raises probing questions about the quality of the academic and social experiences of college students in the U.S. The authors suggest that the changing landscape of undergraduate education produces graduates without a range of requisite skills including critical thinking, complex reasoning, and writing. However, Lopatto and others (2009) provide compelling evidence that UR provides exactly the kind of high-impact learning experiences that engender such skill development in graduates. Further, according to NSSE, engaged forms of learning, such as UR, yield more educational effectiveness resulting in transformational student experiences.

RECOMMENDATIONS AND PROPOSED STRATEGIES FOR ADVANCING UR AT GEORGIA COLLEGE

Towards advancing UR, we provide here a first set of recommendations for moving the program forward.

1. **Craft and assess *UR learning outcomes*** that are seamless, integral, and distinctive to the liberal arts education at Georgia College.

2. **Establish *credit systems for faculty mentorship* in departmental evaluation processes**: When asked to identify the top two barriers to conducting UR at Georgia College, 100% of STEM faculty respondents (38) pointed to teaching load/advising and administrative support. To mitigate this, we propose that departments investigate the following:
   a. ***Flexible evaluation process for faculty to weigh mentorship***: develop a faculty load and evaluation process that recognizes UR
   b. ***Flexible curricula within departments***: develop a process where UR and mentorship are counted as part of the curriculum
   c. ***Digital Measures***: support a distinct input component dedicated to UR activities in the new instrument

3. **Establish a *Center for Undergraduate Research***: Georgia College will profit from having an independent robust UR entity that facilitates infrastructure development including the following:
   a. dissemination of research opportunities
   b. assessment of UR activities' impact on retention, learning, skills, and dispositions
   c. recruitment of students and faculty
   d. collaborations with offices across campus to identify the maximum impact for potential student-scholars, funding sources, dissemination outlets, and capitalizing on intellectual property
   e. faculty development coordination
   f. student activity coordination including showcase opportunities
   g. summer research opportunities
   h. attracting external resources

4. **Provide *funding for UR***: Georgia College will see a significant return on investment by annualizing funds for supporting/and advancing the research environment (that is, implementation and dissemination of UR).
   a. fund student travel
   b. fund student/faculty summer research
   c. seed release time based on department engagement in UR

RECOMMENDATION SUMMARY

Georgia College is already engaged in a number of successful UR practices. These practices provide a number of pathways for our institution to engage in strategic envisioning as a natural next step in advancing UR. We are optimistic that these recommendations, coupled with a carefully-crafted strategic plan, will allow the university to establish a coordinated and robust framework that seamlessly offers opportunities to any student and faculty interested in pursuing UR.

ATTACHMENT

We recognize that mentorship as a relationship implies communication. Faculty might need to consider different strengths and weaknesses of students as a single mentoring approach/style will not fit all students. To this end, we present UR components of both the faculty and the potential undergraduate student perspective for consideration.

Faculty perspective on UR as a process:	UR components	Student perspective on UR as a process:
collaborative		collaborative
serious interactions		serious interactions with realized responsibilities
clear goals	**Mentorship as communication**	summary of clear goals as understood by the student
focus on the student		known learning habits
focus on the student learning process;		intellectual engagement of the student
intellectual engagement of the student		exciting and motivating
disciplinary socialization		time management
building community and long-term relationships		acknowledgement that work represents mentor, Department and University
meaningful contribution by the student		if you have an idea, discuss it with a professor
should be entirely or partially novel	**Originality**	all work should be entirely or partially novel (or at least have the potential based on significant literature search or discipline's body of work)
it is OK to reveal more questions than answers.		it is OK to reveal more questions than answers
introduces and teaches techniques and methodologies that are both appropriate and recognized in the discipline		employs and masters techniques and methodologies that are both appropriate and recognized in the discipline
at a reasonable time requires a reflective/ synthetic component that is appropriate to the discipline	**Acceptability**	includes a reflective/ synthetic component that is appropriate to the discipline
ideally there needs to be a final, tangible product for which both the process and results are peer-reviewed, critiques, juries, judged, etc		ideally there needs to be a final, tangible product for which both the process and results are peer-reviewed, critiques, juries, judged, etc
it is recognized that undergraduate research is a continuum between student (process centered) and outcome (product centered) activities	**Dissemination**	be prepared to discuss your research with different audience and recognize the level of details you need to cover in each (fellow student workers to national experts)
we value and recognize all student initiated participation in and outside of the classroom.		bring knowledge form the lab or field in the classroom

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Georgia College: Undergraduate Research Action Plan

SHORT-TERM GOALS (within 0-3 months)

GOAL	ACTIVITY	RESPONSIBLE PARTY	HOW	IDEAL TIMELINE	BENCHMARK	ACTUAL TIMELINE	ACTION TAKEN
Pre-Conference Activities	Preliminary self-study	Team	Meetings and survey of faculty	Oct 10-June 11	Products to COPLAC; baseline for UR at GC	Oct 10-June 11	Team attends conference; develops action plan
Goal 1: Meet with Provost	Meeting with Provost; submit white paper with recommendations	Team	Lewis will coordinate	8-Jul-11	Meeting occurs	7-Jul-11	White paper draft submitted to Provost; Recommendations for modification of draft
Goal 2: White Paper	Include Provost recommendations into white paper; resend as recommendation for her action	Team	Richards will coordinate	20-Jul-11	White paper (2page) completed and disseminated	4-Jul-11	Modification of draft; submitted final copy as recommendation to Provost's office
Goal 3: Expand Team	*UR Coordinators: one per department - Team Expansion*	Richards	email sent and meeting established	12-Aug-11	Meeting occurred	20-Oct-11	Teaching circles proposals written and funded; ideas developed around mentoring and integrating UR into curriculum; initial meeting for circles slated for Oct. and include at least 10 additional faculty who may become potential UR coordinators

	Kate Pope – LITC	collaboration, brainstorming, idea exchange; they will do the work; buy-in; we have to communicate what is UR, why we do it, what is the benefit; we have to broaden participation; the people who want to do it maybe already do it in their unique way so; they should tell us; benefits; for people who are not participating tell them options; for those who are in offer strategies and exchange ideas; we are communicating progress reports; website location and how you can contribute to it; we need to communicate what are we collecting and why are we collecting it; we need to communicate simple directions; communicate to your Department coordinator before it goes to the web, there is no review or change of information, just streamlining; keep news current; seeking a grass-roots movement; the more, the merrier
	Caitlin Powell – Psych	
	Stephanie McClure – Gov't/Soc	
	Karynne Kleine – COE	
	Chris Greer – COE	
	Brian Marshall – MIS	
	Chris Clark – Econ	
	Brooke Conaway – Econ	
	Doug Keith – Music Therapy	
	Jenny Sewall - Nursing	

MEDIUM-TEM GOALS (within 1 year)							
GOAL	**ACTIVITY**	**RESPONSIBLE PARTY**	**HOW**	**IDEAL TIMELINE**	**BENCHMARK**	**ACTUAL TIMELINE**	**ACTION TAKEN**
1: Resource Allocations	***Hire graduate assistant***	Lewis	Request from Academic Affairs	1-Jul-12	Provost's approval	n/a	The Provost has met with the university President on UR. She has also communicated that she does not see a GA in a temporary role for the proposed work.
	GA= $2650/semester with tuition from academic affairs; salary $15K for part-time position		draft job description		Hire GA	n/a	
	Responsibilities- assist with web site development and maintenance; data dumping, report preparation, etc.		advertise at gcsujobs.com		web site plan and inventory; data plan and inventory	n/a	
	Partner with Center for program Evaluation and Development	Busch	Meet with Dr. Charlie Martin	1-Jul-12	Provost's approval		
	Employ services of Dr. Charles Martin and staff to help develop a plan for how to create a sustainable UR Program at GC	Busch, Richards			Employed services of CFPD		
2. Communicate Information	***Build Web Site***	Brown/Lewis/GA	Work with Barbara Monnet at web development	31-Jul-12	Web site developed and live		
	Web site function as follows: Website = Virtual Office of UR; the site will answer questions around the goal of UR, the role of UR; links link to public doc of committee works, summer research opportunities, promotion interdisciplinary research and student research recruit by listing faculty and research interests with select pubs. Link to "celebration day" create real site for this….Corinthian, Peacock's Feet, Metamorphosis, art dept announcements, RSS feed –to accommodate messages ranging from UR coordinator position to GA for posting.; web site development and maintenance; data dumping, report preparation, etc.						

3. Faculty Development	***Implement UR workshops: advance student scholarship as faculty development***	Richards, Brown, Manoylov,	Work with Metzker, Simon, CETL	Jan-April 12	Workshops planned, implemented and work sustained through periodic updates		Planning underway in December 2011; first symposium slated for Jan 28, 2012; follow-up in March, April and tentatively next academic year
	Faculty development workshops on undergraduate scholarship						

LONG TERM GOALS (within 3 years)							
GOAL	**ACTIVITY**	**RESPONSIBLE PARTY**	**HOW**	**IDEAL TIMELINE**	**BENCHMARK**	**ACTUAL TIMELINE**	**ACTION TAKEN**
Develop and implement Office of Undergraduate Research	Determine status of UR at GC based on new self-study (FY11-12) and informed by assessment of year 1 (and 2 if applicable) activities	UR lead team as advisory council plus UR	Centralize database of UR efforts	1-Oct-12	New UR self-study draft		The Provost communicated on September 22, 2011 that she is seeking funds for a hire for an Office of UR proposed in the first white paper.
	Collect data on university needs for Office of UR		Develop surveys that identify based on best practice models (above), collect data from teaching circles, discussions, town hall meetings, etc; analyze data	1-Dec-13	Report on UR needs at GC		

	Develop conceptual framework/blueprint for Office of UR at GC	departmental coordinators as *ad hoc* members	Investigate models of UR to determine best roles and structure of UR office for Georgia College; invite UR consultant to assist with process	31-Mar-13	Draft of conceptual framework, roles and structure of UR office completed		
	Propose Office of UR model to Academic Affairs		Create proposal based on data for submission to Academic Affairs	10-Apr-13	Proposal to Academic Affairs		
	Create job description and hire coordinator		draft job description; hire process will be based on model determined (ex. reallocated faculty load, extra comp, new hire, etc.)	1-Jul-13	Coordinator hired		
Sustain UR learning communities among faculty, students and faculty/student	Create sustainability plans and measures	under development					
	See year one; roadmap for participation in UR developed; mentoring manual published; recognition of student/faculty involvement in UR enhanced; assessment measures that establish value-added through UR in place and exhibit clear correlations (more development of this section required)						

GEORGIA COLLEGE
GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY

Institutionalizing Undergraduate Research: *first year action plan, activities and cost analysis*

Timeline	Action Plan Activity	Description	GC contribution
Pre-COPLAC Conference	Survey faculty I	First survey to faculty (Aug. 2010) URI Committee prepares for COPLAC-CUR Conference: conducts ***self-study*** - inventory and faculty attitudes to UR	$ 0
2011			
June	COPLAC-CUR Conference	URI Committee participates in the COPLAC-CUR ***Institutionalizing Undergraduate Research Conference*** at UNC-Asheville	$ 300
July	Cultivate administrative support	URI Committee presents ***white paper*** to Provost – provides recommendations/data that underscores critical need for UR coordination and institutional support	$ 0
August	Broaden participation	URI Committee initiate ***conversations*** with faculty champions of UR	$ 0
September		URI Committee writes two mini-grant proposals for teaching circles to support best practice study of (1) UR mentoring and (2) integration of UR into the curriculum	$ 0
October	Mobilize faculty	***UR Teaching Circles*** initiate; circles form the nucleus for campus-wide dissemination Circles meet monthly from October 2011 to April 2012	$1,000
November	Survey faculty II	Second survey to faculty to identify faculty needs for UR: institutional coordination, resources, support	$ 0
December		URI Committee, faculty champions and IC-bG develop plans for an undergraduate research symposium	$ 0
2012			
January	Campus-wide dissemination	CETL/IC-bG hosts day-long ***Undergraduate Scholarship Symposium*** for 13 departmental teams to work on UR goals and action plans; voluntary activity furthers grassroots movement; provide buffet-style lunch and childcare (Saturday event)	$ 700
February	Campus-wide conversations Survey to faculty III	***Symposium Follow-up Workshop***– departmental teams provide updates and propose cross-disciplinary ideas/activities Survey collects data about prospective director of Engaged Learning and Coordinator of Undergraduate Research	$ 0
March		GC announces job description for ***Director of Engaged Learning and Coordinator of Undergraduate Research***	$ 0
		Symposium Follow-up Workshop– departmental teams provide updates and propose cross-disciplinary ideas/activities	$ 0
April	Statewide presentation	***Mentoring Teaching Circle*** faculty (3) present at the USG Engaged Learning Conference (Helen, GA)	$ 800
		UR Mentoring Handbook outline drafted	
	Broaden participation	UR Teaching Circles host university-wide ***Dine & Learn***: poster session showcase and open discussion of UR best practices (cost from circle)	$ 0
		GC hosts ***COPLAC Regional Undergraduate Research Conference***	$ 0
May	Cultivate administrators' support	URI Committee presents ***Year One Report*** to *Council of Deans:* deans commit resources to support for GC faculty team to present at 2012 COPLAC Conference	$ 0
June	National dissemination at COPLAC	URI Committee presents ***Year One Report*** at *COPLAC-CUR Workshop* GC faculty team conduct **workshop** at *Annual COPLAC Conference*	$2,800
	National dissemination at CUR	URI Committee members present poster at **CUR** (free registration for one URI Committee member)	$1,500
	Strategic focusing	Cross-disciplinary team of faculty and staff ***craft UR learning outcomes and action plan*** at IC-bG Summer Institute	$ 150
	Cultivate administrative support	GC announces director of engaged learning and coordinator of UR and launches ***Center for Engaged Learning***	$ 0
		TOTAL	**$7,250**

UR Resources @ Georgia College:
Contact: science@gcsu.edu

math.gcsu.edu/~ryan/tc	***www.gcsu.edu/art/peacocksfeet.htm***
undergraduateresearchmentoring.blogspot.com	***www.gcsu.edu/oconnor***
www.gcsu.edu/engagement	

DATE	Action Plan Activity	Description
Pre-COPLAC	*Survey faculty I*	First survey sent to faculty (Aug, 2010) URI Committee prepares for working conference
2011		
June	*COPLAC-CUR Working Conference*	URI GC Committee participates in the COPLAC-CUR Institutionalizing Undergraduate Research Working Conference at UNC-Asheville
July	*Proposal to Provost*	URI Committee seeks administrative support : white paper recommendations presented to Provost
September	*Broaden participation*	Conversations begin with faculty already engaged in UR; grass-roots movement starts towards shaping the future of UR at GC
October	*Mobilize faculty*	UR Teaching Circles begin gatherings; circles meet monthly from Oct. 2011-Apr 2012 – circle members form the nucleus for campus-wide dissemination
November	*Survey faculty II*	Second survey sent to faculty to identify what faculty perceive as priorities for prospective coordination of UR
December		URI Committee and IC-bG members convene to develop undergraduate scholarship symposium with financial support from CETL
2012		
January	*Campus-wide dissemination*	CETL hosts Undergraduate Scholarship Symposium for GC faculty : voluntary activity by 11departmental teams; grass-roots movement expanded
February	*Survey faculty III: on proposed engaged learning center*	Workshops continue as follow-up to symposium – departmental teams provide updates and share ideas Survey to university to collect data on SKAs of prospective director of Engaged Learning and Coordinator of Undergraduate Research
March	*Search for director of Center for Engaged Learning*	GC publishes job announcement for Director of Engaged Learning and Coordinator of Undergraduate Research
April		Workshops continue as follow-up to symposium – departmental teams provide updates and share ideas
		Mentoring Teaching Circle presents at USG Engaged Learning Conference
		URI Teaching Circles host university-wide "dine & learn"
		GC hosts local and COPLAC Regional Undergraduate Research Conference
May	*Cultivate administration support*	URI Committee make report to Deans Council Circle drafts outline for *Faculty Mentoring Handbook*
June	*National dissemination: presentations at COPLAC and CUR*	GC year one report due to COPLAC GC faculty team presents 90-minute workshop at COPLAC Conference
July	*National dissemination: publication*	URI Committee submits publication to *CUR Quarterly*

GEORGIA COLLEGE
GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY

Institutionalizing Undergraduate Research @ Georgia College

Project Period:
August 2010 - May 2012

Undergraduate Research Initiative Committee:
Ryan Brown, Hauke Busch, Robin Lewis,
Kalina Manoylov, and Rosalie Richards

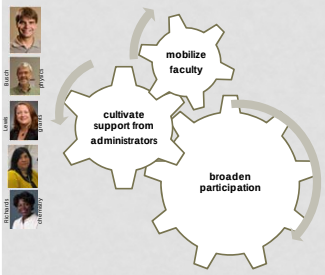
BACKGROUND

- **August 2010**: GC invited to contribute to a COPLAC consortium proposal to CUR
- **June 2011**: GC team participates in 3-day working conference at UNC-Asheville and develops action plan
  - STEM-focused - National Science Foundation grant
  - GC team efforts directed at ***all disciplines***
- **July 2011**: *A Vision for Undergraduate Research* submitted by GC team
- **Fall 2011-Present**: Continued implementation of action plan

Aug. 2010

UNDERGRADUATE RESEARCH INITIATIVE

Phase I : ***to develop and initiate the implementation of an action plan for institutionalizing UR at Georgia College***



Aug. 2010 June 2012

CULTIVATE ADMINISTRATOR SUPPORT

cultivate support from administrators

- **White paper**
  A Vision for Undergraduate Research @ Georgia College
- **Recommendations**
  - craft UR learning outcomes
  - establish credit systems for faculty mentorship
  - establish a Center for Undergraduate Research
  - provide institutional support/funding for UR

Jul. 2011

MOBILIZE FACULTY

mobilize faculty

Goal: catalysts for developing a grassroots, "bottom-up" movement around UR by faculty

- Conversations
- Assessments
- Teaching Circles
- Undergraduate Scholarship Symposium and Follow-Up Workshops

TEACHING CIRCLES

mobilize faculty

Teaching Circles are a group of colleagues who share common interests or concerns related to teaching

- **Goal**
  - ***UR Initiative Committee*** – for the core group to learn about UR and best practices in order to lead the initiative
  - ***Faculty champions*** – (a)to identify invested faculty advocates
    (b) to expand learning about UR and best practices
  - $500 per proposal for academic-year (Oct – Apr)
    - *Integrating UR into the curriculum*
    - *Effective Mentoring: Tools for advancing UR*

english, math, psychology, marketing, chemistry, physics, education government, grants

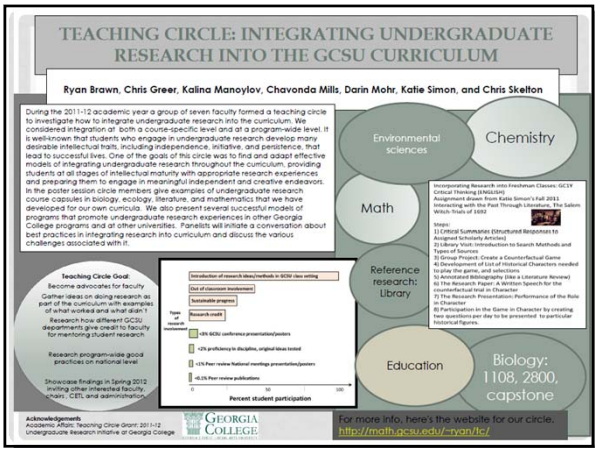
- **Outcomes**
  - learned; shared/generated ideas; offered resolutions to problems; mentoring
  - *Integration circle: inventory of courses with UR content;* identifying/adapting effective models for integrating UR
  - *Mentoring circle:* developing a *Mentoring Handbook*
  - *Circles*: showcase (April); peer mentoring network in UR

Oct. 2011 **Poster session & workshop: Fri 2 pm**

Teaching Circle Resources
math.gcsu.edu/~ryan/tc
undergraduateresearchmentoring.blogspot.com

TEACHING CIRCLE: INTEGRATING UNDERGRADUATE RESEARCH INTO THE GCSU CURRICULUM

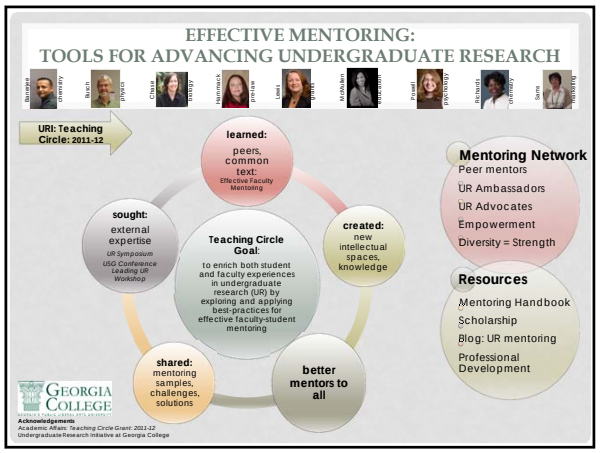
Ryan Brawn, Chris Greer, Kalina Manoylov, Chavonda Mills, Darin Mohr, Katie Simon, and Chris Skelton



Acknowledgements
Academic Affairs Teaching Circle Grant: 2011-12
Undergraduate Research Initiative at Georgia College

GEORGIA COLLEGE

For more info, here's the website for our circle.
http://math.gcsu.edu/ryan/tc/



FACULTY VOICES

- *Although the major focus was on developing undergrad research, our teaching circle served to enhance the development of mentoring relationships among ourselves. Many of us met for the first time and learned about the talents and contributions of each other. The readings were raw and culturally relevant. They often led to lively discussions that resulted in a compilation of insightful mentoring examples across disciplines. Most of all, our teaching circle affirmed the professional dedication to academia despite limited funding and time. Thanks for mentoring me and encouraging me to be a part of this great group!*

CAMPUS-WIDE DISSEMINATION

- **Goal:** To broaden participation of programs and departments in UR;
- **Undergraduate Scholarship Symposium and Follow-Up Workshops**
  - faculty champions as "moles"
  - lunch and childcare (Saturday event)
  - follow-Up Workshops: February, March
  - $700 investment
- **Outcomes:**
  - 31 faculty, 11 departments, 13 programs
  - learned; shared/generated ideas; offered resolutions to problems; mentoring
  - envisioning exercises; crafted outcomes for UR in programs/departments
  - developed action plans for programs/departments
  - shared vision for advancing UR; common student-centered UR activities
    - cadre of peer mentors for program/department UR action planning
    - poster session in fall 2012?: updates; recruitment of new programs

broaden participation

Jan. 2012

UNDERGRADUATE SCHOLARSHIP SYMPOSIUM AND WORKSHOPS

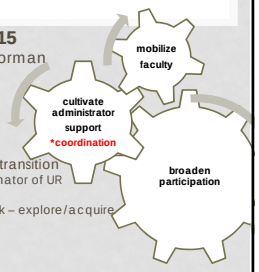
Supported by CETL, IC-bG and URI

Goal: ***for departments to develop roadmaps to advance undergraduate research efforts***

11 departments
14 programs
33 potential mentors

NEXT STEPS – THE CLIMATE

- **new President: announced June 15**
  - Transitional materials for Dr. Steve Dorman
    - institutionalizing UR and sustaining UR
    - valuing UR
    - efforts/plans/institutional support
- **Coordination**
  - Center for Engaged Learning - director transition
    - director of engaged learning and coordinator of UR
    - inherent advisory groups
    - funding the coordination/assessment work – explore/acquire
- **Search for new Provost (2013)**
  - Transitional materials
  - Institutionalizing and sustaining UR
    - valuing UR; how we value mentoring
    - integrating undergraduate research into curricula
    - current efforts/plans/institutional support



Jul. 2012

NEXT STEPS

- **FOCUS ON THE STUDENT**
  - advisory roles; student advisory and focus groups
  - mentoring; developing mentoring handbook
  - organizing students around UR across disciplines (ex. liberal arts UR forums)
  - UR offerings in courses curricula
  - funding for student research/travel – university budget line item
- **FOCUS ON THE FACULTY**
  - ***professional development*** – sustaining UR at program, departmental , college levels
  - ***time*** – faculty facilitating conversations on program/department evaluation protocols
  - ***integrating UR into curricula*** – using models and other incentives
  - ***reward and recognition*** – valuing UR: tenure, promotion, recognition
- **FOCUS ON THE UNIVERSITY**
  - **Coordination**
    - Center for Engaged Learning - director transition; coordination/assessment work
    - Celebration days – kinking it up a notch!
    - USG-wide UR Conference under discussion – statewide, multi-disciplinary conference for undergraduate researchers and sessions for mentors

Jul. 2012

LESSONS LEARNED

- XXXX

May 2012

ACKNOWLEDGEMENTS

- XXXX

Undergraduate Research Initiative Action Plan

AY 2012-15

Short/Mid-Term Goals (within 3 months)			
Goal	**Activity**	**Benchmark**	**Anticipated Outcomes**
1.1: develop new action plan and present to university administrators and coordinator of undergraduate research	-craft new action plan for 2012-15 -make appointments to meet with university administrators (interim President, Provost, Assoc. Provost)	administrator support established and on-going	- *Action Plan 2012-15* was presented to administrators - fiscal support and resources to elevate UR established
1.2: nurture faculty champions of undergraduate research	-Teaching Circles -Undergraduate Scholarship Symposium; invite CUR consultants -Faculty surveys	grassroots movement among faculty around undergraduate research; mobilize new faculty through professional development opportunities	- approx. 30% faculty actively engaged in student research - more departmental action plans for advancing student research - inventory of successes, practices, and obstacles to student research
Mid-Term Goals (within 1 year)			
2.1: formalize communication practices to elevate the visibility of undergraduate research as engaged learning	-establish a student research inventory and data collection system -identify and communicate status of UR at Georgia College -establish communication outlets for UR (e.g. web site, publications, GC Communications, etc.)	student achievement through research visible at local/state, national and international venues; student research becomes part of the institutional vocabulary	- branding of student research as a GC distinctive - increased institutional self-esteem - improved indicators of academic, fiscal and reputational success such as statewide and national rankings (e.g. *Top Public Schools* and *Liberal Arts Colleges, COPLAC)* - invitations to participate in dialogue on student research - requests to participate in invitation-only applications (e.g. HHMI, Carnegie classifications, Research Corporations, CUR, etc.)
2.2: establish and/or formalize practices/policies in undergraduate research	-establish a Research Council -develop an action plan for implementing learning outcomes	policies and procedures that advance the institutionalizing of undergraduate research	- processes, policies and procedures respond to GC's model for UR how is valued by disciplines and at the institution
Long-Term Goals (within 3 years)			
3.1: establish a *Minor in Research*	-develop an inventory of research courses -develop and present a proposal for a Minor in Research -market idea and develop buy-in at all levels: admin, faculty, staff and students	build capacity in UR through university-wide strategic envisioning processes to elevate faculty-student collaborations and faculty mentoring as an curricular distinctive	- undergraduate research is branded as an academic distinctive at GC - courses and a minor degree as sustainability - level of institutionalization raised

Infusing Undergraduate Research into the University Culture:

Small ideas with large returns on investment

Student Focus: ***develop a vibrant learning community of student research scholars***

1. Offer proposal-writing workshops for students to vie for funding for research and travel
2. Provide funding for student research and travel
3. Develop an Abstract Book of Student Research and/or transform student research conference event schedule into a Celebration of Student Research Program booklet that highlights excellence
4. Create an *Undergraduate Research Scholars Society*
5. Create an *Undergraduate Research Ambassadors Program*
6. Develop a *Liberal Arts Forum on Undergraduate Research*
7. Implement student research projects that benefit the institutionalization of undergraduate research; for example, inventory work:
    i. census data for students conducting undergraduate research
    ii. data on undergraduate research courses
    iii. determine mentoring practices among faculty, etc.
8. Offer recognition/awards for exemplary student involvement in undergraduate research

Faculty Focus: ***mobilize faculty around issues of student research***

1. Create a *Research Advisory Council*
2. Rebrand courses containing elements and strands of undergraduate research
3. Provide mentoring workshops for faculty mentors
4. Provide resources and incentives to initiate a summer research program
5. Create a mini-grant program to encourage faculty involvement in undergraduate research in courses
6. Offer recognition/awards for exemplary courses, programs, departments, and faculty

Staff Focus: ***raise awareness of student research as an academic distinctive at Georgia College***

1. Highlight undergraduate research in admissions materials
2. Highlight undergraduate research to first-year students during Week of Welcome
3. Develop (by/for) academic departments materials/brochures highlighting student research
4. Elevate undergraduate research as excellent public relations at GC Communications

Administrator Focus: ***build campus consensus on student research***

1. Adopt undergraduate research as a curricular distinctive of the liberal arts mission as outlined by COPLAC and the AAC&U Leap Initiative
2. Provide resources to leverage undergraduate research as engaged learning as outlined in the QEP
3. Communicate the value of undergraduate research at Georgia College by highlighting student-faculty collaboration activities through action plans, speeches, news bulletins, and other media outlets
4. Communicate (often) undergraduate research as inclusive transformational learning
5. Offer recognition/awards for exemplary outcomes of undergraduate research: e.g. recognition banquet/reception for students, mentors, collaborators, funders, etc.

Learning Outcomes for Undergraduate Research:

A proposal

As part of the Association of American Colleges (AAC&U) and University's Liberal Education and America's Promise (LEAP) initiative, the Valid Assessment of Learning in Undergraduate Education (VALUE) project contributes to the national dialogue on assessment of college student learning. VALUE (http://www.aacu.org/value/index.cfm) builds on a philosophy of learning assessment that privileges multiple expert judgments of the quality of student work over reliance on standardized tests administered to samples of students outside their required courses. The assessment approaches that VALUE advances are based on the shared understanding of faculty and academic professionals on campuses from across the country.

As a member of COPLAC and AAC&U, the Georgia College URI Committee and other university faculty and staff endorse the alignment of Georgia College University-wide Learning Outcomes with the VALUE project rubrics to assess student learning and development in Undergraduate Research.

The essential learning outcomes addressed in the project are:

Intellectual and Practical Skills

Inquiry and analysis

Critical thinking

Creative thinking

Written communication

Oral communication

Quantitative literacy

Information literacy

Teamwork

Problem solving

Personal and Social Responsibility

Civic knowledge and engagement—local and global

Intercultural knowledge and competence

Ethical reasoning

Foundations and skills for lifelong learning

Integrative Learning

Integrative learning

CUR Workshop on Institutionalizing Undergraduate Research

Follow-up Campus Survey: Georgia College

Dear CUR Workshop Team Leader:

The following survey is designed to gather information about the longer-term impacts of the workshop you attended and help us understand how we can best be of further assistance to you during our upcoming second round of workshops. *The survey is designed to be completed by you in consultation with the other members of your team.* If there is not enough room for your answer to a given question, please attach an additional sheet of paper and note the number of the question you are answering. The last page of the survey has instructions on how to return the completed form. Please take a few moments to let us have your views. ***Thank you!***

Please respond by May 15, 2012

1. Please indicate the degree to which you agree with each of the following statements by placing an "X" in the appropriate box.

1. We are sharing the information we acquired at the workshop with other faculty and/or administrators on our campus.	Not at All	A Little	A Fair Amount	A Great Deal **X**	
2. Based on the workshop information we received we are modifying or planning to modify the undergraduate research program goals we want to accomplish over the next 1-3 years.	Not at All	A Little	A Fair Amount	A Great Deal **X**	
3. The contacts we made at the workshop are helping to support the work that we are currently doing to institutionalize undergraduate research on our campus.	Not at All	A Little	A Fair Amount **X**	A Great Deal	
4. We are using the self-study exercise completed by our team prior to the workshop as input to our implementation of undergraduate research on our campus.	Strongly Disagree	Disagree	Neutral	Agree **X**	Strongly Agree
5. The Institutional Action Plan our team developed at the workshop is proving to be a useful guide to the implementation of undergraduate research on our campus.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree **X**
6. Based on what we learned at the workshop we are continuing to work on plans for institutionalizing undergraduate research on our campus.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree **X**
7. Using what we learned at the workshop we are taking or planning to take specific actions to help institutionalize undergraduate research on our campus.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree **X**

2. Since the workshop, what obstacles to the full implementation of undergraduate research on your campus have you encountered or do you anticipate?

	Encountered	Anticipate
1. Developing a shared campus-wide vision for UR	x	___
2. Resource limitations	x	___
3. Difficulty obtaining faculty buy-in	x	___
4. Difficulty integrating UR into curriculum	x	___
5. Difficulty adjusting faculty workload	x	___
6. Difficulty developing appropriate assessments	___	x
7. Inadequate administrative support	x	___
8. Widely varying campus standards for UR	x	___
9. Constraints on student time	x	___
10. Lack of student awareness	x	___
11. Other _____	___	___
12. Other _____	___	___
13. Other _____	___	___

3. Please briefly list the strategies you are currently emphasizing in order to overcome the obstacles you have identified above.

#1. Faculty team will be crafting institution-wide goals at a summer institute on June 29, 2012

#2. The initiative committee is pursuing conversations with the National Science Foundation and AACU on bringing theory to practice.

#3. Some resistance; not much; however, we initiated our campus-wide dissemination with 11 departments/13 disciplines via a CETL-sponsored event where departmental representatives developed action plans; we plan to host a fall poster session for departments to showcase their plans; we also plan to use this first cohort of faculty as mentors for a subsequent event if we repeat this activity in fall 2012.

#4. We initiated a year-long ***Teaching Circle*** on *Integrating UR into the Curriculum* where a team of faculty studied this issue and made recommendations; we plan to use this information to make formal recommendations to our Academic Affairs who sponsor the circles; we also hosted a teaching circle "dine and learn" showcase for conversations with faculty/administrators about these findings.

#5. We have a new faculty evaluation plan hosted at the departmental level; we envision that conversations about faculty load will occur there. At the same time, no activities have occurred to date on how to access conversations on this issue. We are planning to see this occur via the departmental action plans but we need to address this directly.

#7. Inherent to our work was significant administrative support. However, since we are transitioning to a new Provost/VP of Academic Affairs, detailed conversations on this issue were not addressed to the degree that we anticipated; at the same time, we are securing a new Center for Engaged Learning and searching for a director for engaged learning and Coordinator of Undergraduate Research.

4. How would you summarize the current status of undergraduate research implementation on your campus?

___ Still in planning stage

___ Implementation scheduled to begin during _____ term

___ Underway with a handful of faculty and students

___ Has begun in _____ STEM-related departments

___ Has begun in _____ non-STEM related departments

___ Is being implemented department-wide in _____ STEM-related departments

___ Is being implemented department-wide in _____ non-STEM-related departments

x Other _***Is underway with STEM and non-STEM-related faculty in 11 departments***_

___ Other _____

5. In light of what you learned at the first workshop, what topics would you like to revisit in more detail, or what new topics would you like to see covered at the upcoming second workshop?

1. crafting institution-wide learning outcomes for UR_____

2. strategies for communicating UR across campus at ALL levels_____

3. integrating UR into curricula__ _____

4. _____

5. _____

6. At the first workshop, CUR provided participants with various types of information, including a binder with hard copies of the PowerPoint slides used during presentations, references to research and resources, contact information for CUR and other materials. Looking at the binder you received at the first workshop and considering your current information needs, what information do you think CUR should omit or provide only in digital form at the Round 2 workshop, and what information would you like to see added?

1. Omit altogether:

_____N/A_____ _____

_____ _____

_____ _____

2. Provide only in digital format:

_____ _____

_____ _____

_____ _____

3. Add:

_____ _____

_____ _____

_____ _____

Please return this survey by:

[Insert date from first page]

By e-mail to:

skinkaid@cur.org

By fax to:

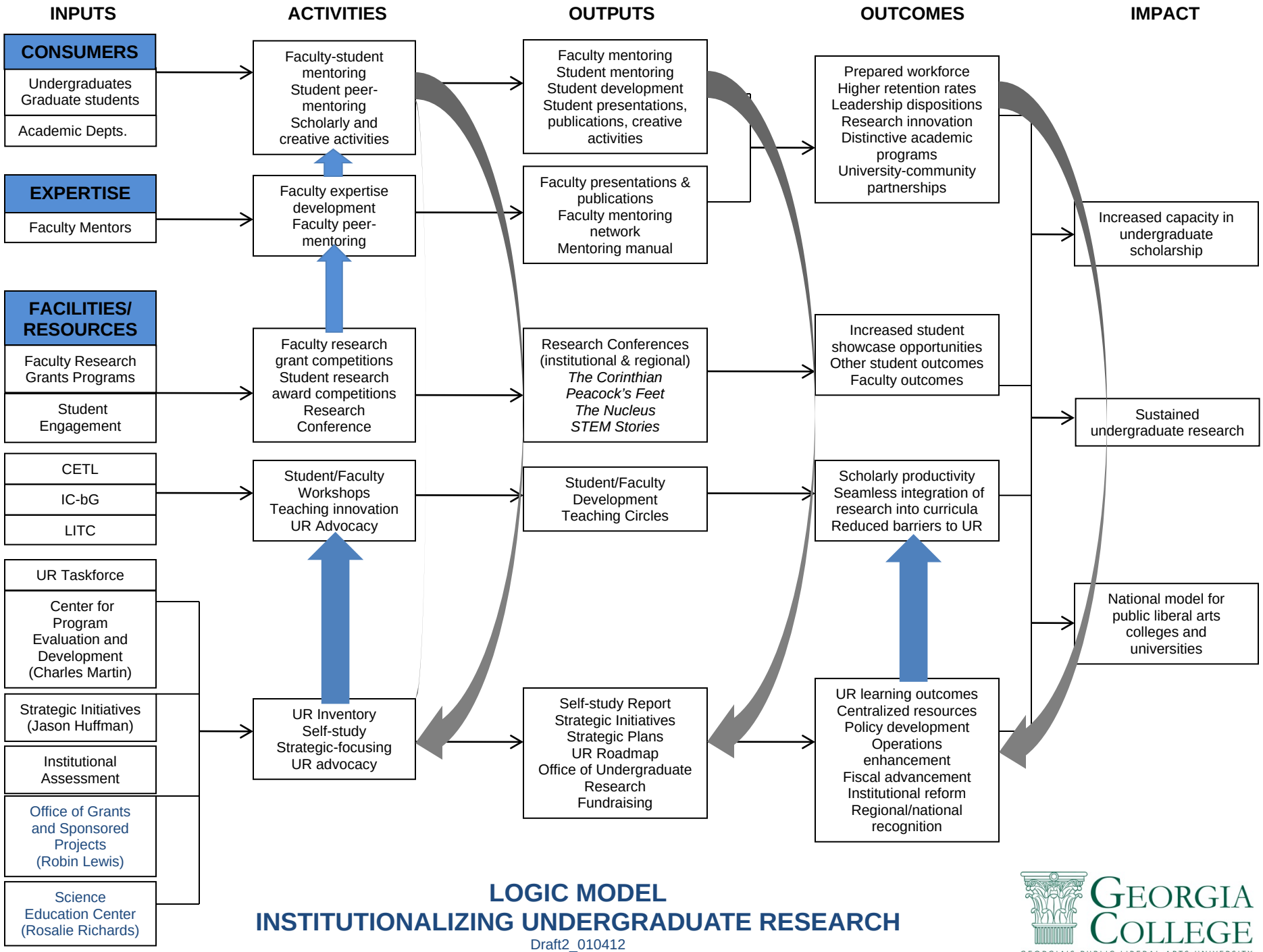
Shontay Kincaid
CUR
(202) 783-4811

By regular mail to:

Shontay Kincaid
CUR
734 15th Street N.W., Suite 550
Washington, DC 20005

Thank You!

SUPPLEMENTARY MATERIALS



LOGIC MODEL
INSTITUTIONALIZING UNDERGRADUATE RESEARCH

Draft2_010412

GEORGIA COLLEGE
GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY

Effective Mentoring – Tools for Advancing Undergraduate Research at Georgia College

Teaching Circle Proposal

***Circle Members**:* Koushik Barnerjee (Chemistry); Amanda Chase (Biology); Jennifer Hammack (Government & Sociology); TeaYoun Kim-Kassor (Art); Rebecca McMullen (Education); Caitlin Powell (Psychology); Doreen Sams (Business); Hauke Bush (Physics) – Co-Chair; Rosalie Richards (Science Education Center/Chemistry) – Chair

***Project Description**:* The goal of this teaching circle is to enrich both student and faculty experiences in undergraduate research by exploring and applying best-practice strategies for effective faculty-student mentoring. Undergraduate research is quickly becoming a signature feature of the public liberal arts experience as it develops in students a spirit of inquiry, creativity, leadership abilities, independence, initiative, sound judgment, persistence, alertness, and patience (Kuh, Kinzie, Schuh, and Whitt, 2010). Further, undergraduate research allows faculty mentors to maintain enthusiasm, professional competence, and scholarly productivity (Kinkel and Henke, 2006). In order to foster these experiences and cultivate such dispositions among undergraduates, effective mentoring by a faculty mentor must occur. Mentoring implies the development and sustainability of relationships where positive communication embraces learning by both mentee and mentor. Although the role of mentor has been key to communities of engagement over several millennia, resources on effective mentoring approaches and strategies in undergraduate research are scare (Crowe and Brakke, 2008). Research conducted by Shellito and others (2001) revealed that students believe that it is important for mentors to be approachable and encouraging, that the amount of time a mentor and mentee spend together was an important determinant of satisfaction, as was the amount of time spent together (> 2.5 hours per week). Of the three models of mentors (project, career, and individual), about half of students surveyed thought that the ideal mentor would emphasize project guidance, while a third chose individual guidance. Faculty interviews (*ibid*) yielded 12 tips for effective mentoring: (1) develop well-defined projects; (2) recognize students' time constraints; (3) commit ample supplies and equipment; (4) understand and communicate expectations; (5) spend time with and become acquainted with students; (6) give positive constructive feedback; (7) be approachable; (8) respect students; (9) monitor progress/transition toward independence; (10) encourage presentations; (11) offer career advice; and (12) provide continued mentorship. Yet, many faculty members (mentored under a graduate school model) report frustration with mentoring in undergraduate research including a recent survey of Georgia College faculty. Clearly, deliberate mentor training is required.

Georgia College's mission statement and its strategic directives view undergraduate research as critical to creating "the next leaders of the free world". Therefore, towards developing faculty careers that include undergraduates as researchers, this teaching circle proposal aims at identifying and investigating key features of successful mentoring, applying strategies for effective mentoring, assessing mentoring approaches, and developing a network of faculty mentor-leaders in undergraduate research. The circle will meet monthly (brown-bag lunch) from October to April. In the initial stages of this learning/teaching circle, we will examine and explore theories, mentoring models, and strategies associated with mentoring with a focus on how these may apply to undergraduate research and to mentoring as a whole. As the circle and

interests of the participants evolve, we foresee circle members exploring discipline-specific mentoring models. Throughout the year, we plan to apply best practices and share our own experiences in mentoring undergraduates. We will invite content professionals to contribute expertise that will advance our work. This might include sessions consistent with the tips reported by Shellito (*ibid*) such as measuring success in mentoring by Dr. Charles Martin of the Center for Program Assessment & Development or attracting/maximizing resources to support research by Robin Lewis of OGSP or others, as identified by the circle. One important aspect of the teaching circle will be to share what we have learned with the university community. We envision presenting our work at a CETL session in Fall 2011 or Spring 2012. In addition, one ambitious but attainable culminating activity will be an outline for an undergraduate research mentoring guide/manual for Georgia College faculty which might include reflective essays from faculty as well as best practices models and strategies, resources, etc. We will assess the progress of the circle through the members participation rate, pre-post survey on mentoring dispositions, feedback from strategies/tips implementation, producing an outline for a mentoring guide, and dissemination of our findings. Sustainability of this project will be realized in several ways. First, this circle is diverse in ethnicity, gender, and place of origin, which will bring a richness to discussions as will the cross-disciplinary composition of members from art, business, biology, chemistry, government and sociology, psychology, and education. Second, we anticipate that through our studies, circle members will function as ambassadors for UR in their respective departments and form the base of a core group of peer mentor-leader to faculty interested in or already conducting undergraduate research. Third, a proposed mentoring manual will be dynamic in function as a living document of research mentoring possibilities and as a signal to other faculty and to students of Georgia College's commitment to fostering a culture of research.

We are proposing co-chairs for this circle. Hauke Busch will maintain the budget and coordinate assessment of the brown-bag meetings. Rosalie Richards will be responsible for coordinating the brown-bag lunches and submitting the final report. The co-chairs, together with a circle member volunteer, will coordinate the dissemination of the circle's outcomes.

Budget Justification*:* The request is for the full $500.00. Funding will be used to purchase a common text (to be decided by circle) and materials (several from CUR) as well as discipline-specific materials for each member of the circle. The funds will be distributed among each circle member as an allocation to offset/reimburse the cost of purchased materials.

References

1. Kuh, George D., Kinzie, J., Schuh, J.H., and Whitt, E. J. Student Success in College: Creating Conditions that Matter. *Jossey-Bass,* San Francisco: 2010

2. Kinkel, D.H., and Henke, S.E. 2006. Impact of Undergraduate Research on Academic Performance, Educational Planning, and Career Development. *Journal of Natural Resources and Life Sciences Education; 2006:35*, ProQuest Education Journals pg. 194

3. Crowe M., Brakke, D. Assessing the Impact of Undergraduate Research Experiences on Students: An Overview of Current Literature. *Council of Undergraduate Research Quarterly*, 2008, 4, 43-50

4. Shellito C, Shea K , Weissmann G, Mueller-Solger A , Davis W. Successful mentoring of undergraduate researchers: Tips for creating positive student research experiences. *Journal of College Science Teaching*, 2001;30:460-465.

Executive Summary

Circle Members: Drs. Koushik Banerjee (Chemistry); Amanda Chase (Biology); Jennifer Hammack (Government); Rebecca McMullen (Special Education); Caitlin Powell (Psychology); Doreen Sams (Business); Hauke Bush (Physics)– co-chair; Rosalie Richards (Chemistry) – co-chair

The overarching goal of this academic-year teaching circle was to enrich faculty experiences in undergraduate research by exploring and applying best-practice strategies for effective faculty-student mentoring. Specific circle goals included (1) identifying and investigating key features of successful mentoring, (2) sharing, applying, and assessing strategies for effective mentoring, (3) creating an outline for a mentoring manual, and (4) developing a network of faculty mentor-leaders in undergraduate research. This circle was an outcome of the GC Undergraduate Research Initiative. By all accounts, the mentoring teaching circle was quite successful. All, but one member, plan to continue explorations during academic year 2012-13. Members perceived the greatest outcome of the gatherings to be the network created among peers, the opportunity to raise challenges and explore solutions in a safe space, and a collective desire to advance mentoring skills and the skills of students. Other outcomes included:

1. A presentation at the USG Best Practices for Promoting Engaged Student Learning Conference (Helen)
2. An *Effective Undergraduate Research Mentoring* Brochure
3. Participation in the USG Workshop on "Leading Undergraduate Programs" (Athens)
4. Members as team leaders at the Undergraduate Scholarship Symposium & Follow-Up Sessions (GC)
5. An outline for a *Undergraduate Research Mentoring Handbook*
6. A teaching circle blog at *http://undergraduateresearchmentoring.blogspot.com.*
7. An extensive *literature review* on undergraduate research mentoring
8. Poster presentations/panelists at the Teaching Circle Showcase on Undergraduate Research (GC)
9. Rich reflections on the common text - Faculty Success through Mentoring, C.J. Bland *et al.*
10. Workshop facilitators/panelists at the COPLAC Conference - Jun 21-23, 2012 (UVA-Wise)

INTRODUCTION AND GOALS

Towards developing faculty careers that include undergraduates as researchers, the goal of this teaching circle was to enrich faculty (and tacitly, student) experiences in undergraduate research by exploring and applying best-practice strategies for effective faculty-student mentoring. The circle's work was rooted in mentoring practices promoted by Shellito *et al.* (2001), Crowe and Brakke (2008), Wenger and others (2002), and Bland *et al.* (2009). In order to promote positive, informed, meaningful mentoring experiences, circle members spent the academic year exploring, examining, applying and sharing best practices across disciplines.

PROCESS

Recruitment: The composition of the circle was critical to sustaining the project. Members were strategically recruited from seven diverse disciplines: (1) to empower circle members to pursue conversations about undergraduate research mentoring in the respective departments by; (2) to create ambassadors for undergraduate research in the respective departments; (3) to seed and stimulate cross-disciplinary dialogue; and (4) to form a core group of faculty mentor-leaders to support peers interested in or already conducting undergraduate research. The diversity of faculty in terms of race, ethnicity, gender, and place of origin also elevated an already rich dialogue.

Circle Activities: The circle gathered monthly, mostly at Blackbird Coffee at noon, from October 2011 to April 2012. In the initial stages of the *learning* circle, we discussed successes, obstacles and differences in implementing undergraduate research mentoring among the represented disciplines. As the circle and interests of the participants evolved, we shared mentoring models and identified practices that were useful despite of discipline. These will be outlined in a research-based mentoring handbook to be published by circle members. A calendar of activities for the circle is shown below in Table I and a description of outcomes associated with activities is described.

Bland, Carole, Taylor, Anne, Shollen, S., Weber-Main, Anne and Mulcahy, Patricia. Faculty Success through Mentoring: A Guide for Mentors, Mentees and Leaders. Maryland: Rowman & Littlefield Publishers, 2009: Print.
Crowe, M., Brakke, D. Assessing the Impact of Undergraduate Research Experiences on Students: An Overview of Current Literature. *Council of Undergraduate Research Quarterly* 4 (2008): 43-50. Print
Shellito, C., Shea, K., Weissmann, G., Mueller-Solger, A., Davis, W. Successful mentoring of undergraduate researchers: Tips for creating positive student research experiences. *Journal of College Science Teaching* 30 (2001): 460-465. Print
Wenger, Etienne, McDermott, Richard, Snyder, William M. Cultivating Communities of Practice. Cambridge: Harvard Business Review Press, 2002. Print

Table 1: Teaching circle activities (October 2011 – July 2012)

Date	Activity	Outcome
Oct 16	Teaching circle meeting	introductions; norming and organizing; common goals
Nov 21	Teaching circle meeting	blog developed; common text distributed; activities planned
Jan 23	Teaching circle meeting	common obstacles; literature review; text reflections; conference
Jan 27		abstract submitted to USG Engaged Learning conference
Jan 28	GC Undergraduate Scholarship Symposium	circle members led departmental team work at symposium; developed preliminary action plans (J. Hammack, R. McMullen, D. Sams, R. Richards)
Feb 20	Teaching circle meeting	reflections shared on common text; outcomes of undergraduate scholarship symposium shared; articles and literature review for circles work discussed
Mar 19	Teaching circle meeting	examples of best practices shared; inventory of practices created - placed in DropBox account; assigned responsibilities for mentoring manual; made preparations for USG conference
Apr 12-13	*Best Practices for Promoting Engaged Learning* - USG Conference - Helen, GA	Pecha Kucha presentation (7 minutes/21 slides) - *Mentorship as an agent of change: student, faculty and global stakeholder*; poster on same topic presented; professional development via workshops attended (J. Hammack, R. Lewis, R. Richards)
Apr 13-14	Student Research Conferences - GC	student presentations at both Georgia College and COPLAC events
Apr 16	Teaching circle meeting	rehashed USG conference; drafted preliminary outline of mentoring manual; coordination/logistics for attending USG 'Leading UR Programs' workshop
Apr 20	*Leading Undergraduate Research Programs* - USG Workshop - Athens	circle members participated in workshop conducted by Columbus State University; communicated to USG schools success and challenges of UR at Georgia College; Columbus State plans to host a USG-wide UR conference for students and mentors (J. Hammack, C. Powell, D. Sams)
May 11	Circle final report due	circle report completed; distributed to members and Acad Affairs
June	Mentoring Manual and publication work plan	-work plan for developing mentoring manual (C. Powell – lead) -content analysis publication (D. Sams – lead)
Jun 21-23	COPLAC Conference - UVa-Wise	workshop facilitated by 5 GC faculty: poster session and panel discussion on *Undergraduate Research as a COPLAC Distinctive* (R. McMullen, R. Richards)
Jun 23-26	CUR Conference - College of NJ	URI Committee poster presented by 2 circle members (R. Lewis and R. Richards)
July	Mentoring Manual and publication work plan	-implementation of work plan for developing mentoring manual -teaching circle publication

GOALS MET AND FINAL PRODUCTS: As outlined in the executive summary, not only were the goals of the circle met, but we also realized several unanticipated outcomes of the work.

(1) Goal I: ***to identify and investigate key features of successful mentoring*****.**

The circle's common reading on faculty mentoring (Bland *et al.*, 2002) revealed that structure is important for meaningful research experiences by faculty and students (***Appendix I; blog***).

(2) Goal II: ***to share, apply, and assess strategies for effective mentoring*****.**

Complementing the common text and mentoring tips proposed by Shellito *et al.* (2001) was an exhaustive *literature review* led by D. Sams. This review will form the foundation of several publications including a faculty mentoring manual. Instead of inviting content experts to contribute expertise to our work as originally planned, circle members attended conferences and workshops at and external to GC (***see blog***). At these events, members shared new knowledge resulting from circle gatherings through oral/poster presentations (***Appendix II, V***). We also shared successes and challenges in undergraduate research with other USG faculty. Since it was critical that we disseminate what we were learning with the university community, we presented at the Teaching Circle Showcase organized by our sister teaching circle, *Investigating how to Integrate Undergraduate Research into the Curriculum*. This circle was also an outcome of the Undergraduate Research Initiative.

(3) Goal III: ***to create an outline for a mentoring manual*****.**

One culminating activity proposed by the circle was the creation of an outline for an undergraduate research mentoring manual for Georgia College faculty. The proposed *Undergraduate Research Mentoring Handbook* will be dynamic in nature, will function as a living document of research mentoring possibilities, and signal Georgia College's commitment to fostering a culture of research by faculty and students. ***Appendix III*** is a first draft of the outline of the handbook. We envision that the handbook will be a phased project that will ultimately address (a) mentoring undergraduates in research in a liberal arts setting; (b) best-practices in mentoring; (c) practical examples of strategies/tips used by faculty; (d) mentoring case studies; (e) resources in mentoring that parallel an established resource for innovative teaching at GC; (f) resource management; (g) recommendations for how Georgia College and

individual departments can create customized, sustainable mentoring programs that provide support, recognition, and reward; and (h) why mentoring matters in terms of retention of students and faculty.

(4) Goal IV: ***to develop a network of faculty mentor-leaders in undergraduate research*****.**
Critical to meeting goals I, II, and III was the recognition of a "safe space" to discuss academic issues, to raise challenges and seek solutions. A peer-mentoring environment developed around common goals by highly-motivated enthusiastic circle members. Further, members viewed themselves as "agents of change" and as advocates for undergraduate research as evidenced by a presentation at the USG Conference in Helen. To cultivate/encourage this advocacy, members were identified to lead their departmental teams at the *Undergraduate Scholarship Symposium & Follow-Up Workshops* at GC. The progress of the circle was assessed through the members' participation rate in circle meetings; four of the eight members missed only one meeting; four missed none. The growth in our mentoring dispositions was measured through pre-post surveys (***see blog***). The intent of members in continuing the circle's work was evaluated through survey; all but one member plan to continue the work. Two separate reflections revealed positive experiences by all members (***Appendix IV, blog***). The blog shows results of circle surveys.

FINAL THOUGHTS

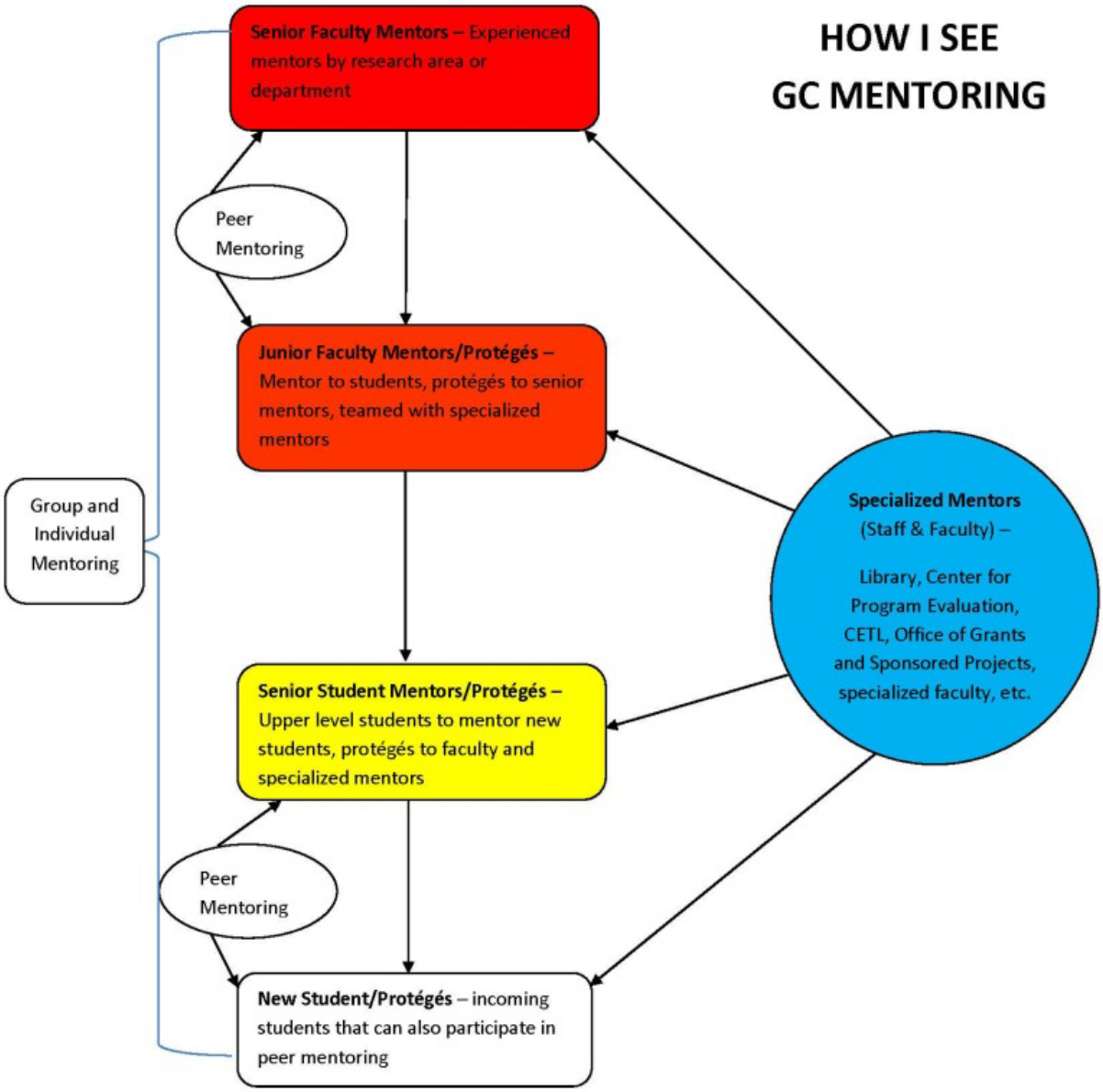
Overall, the circle outcomes point to a project that met and exceeded its goals. Circle members continue to attribute other activities, decision-making, and successes to participation in the circle (blog). As Table I shows, the circle will continue to work throughout summer 2012. Looking ahead, as clear learning outcomes/goals for undergraduate research are established at Georgia College, we anticipate that the handbook will be important in the implementation of these goals.

BUDGET

The budget request was for the full $500.00. Funding was used for the following:

i.	purchase of texts and a common text	364.72
ii.	travel (mileage) for circle member, Jennifer Hammack, to present at the USG Engaged Learning Conference	135.28
	Total	**$ 500.00**

APPENDIX I



Inspired and designed by R. Lewis

APPENDIX II


GEORGIA COLLEGE
Mentorship as an Agent of Change:
Student, faculty and global community stakeholders
Research
Difference
Succeed
College
COPLAC
Presenters:
Jennifer Hammack
Robin Lewis
Rosalie Richards
Authors:
Koushik Banerjee
Hauke Busch
Amanda Chase
Jennifer Hammack
Robin Lewis
Rebecca McMullen
Caitlin Powell
Rosalie Richards
Doreen Sams
USG Teaching and Learning Conference: Best Practices for Promoting Engaged Student Learning
April 12-13, 2012
Helen, Georgia
ABSTRACT
This study identifies mentoring best practices in undergraduate research as change agents for multiple stakeholders (i.e. student, faculty and the global community). For example, a research clinic for pre-law undergraduates provides legal briefs for appellate law cases, several reaching the Supreme Court level. Likewise, research by education majors has led to student appointments on the executive board of the National Council for Exceptional Children, a professional organization that shapes national policy. Similarly, published research by business majors has global impact, with work replicated in Ghana. In the sciences, first-generation students from poor, rural communities raise the capacities of their region.


EFFECTIVE MENTORING:
TOOLS FOR ADVANCING UNDERGRADUATE RESEARCH
Banerjee chemistry
Busch physics
Chase biology
Hammack pre-law
Lewis grants
McMullen education
Powell psychology
Richards chemistry
Sams marketing
learned:
peers, common text:
Effective Faculty Mentoring
created:
new intellectual spaces, knowledge
better mentors to all
shared:
mentoring samples, challenges, solutions
sought:
external expertise
UR Symposium
USG Conference
Leading UR Workshop
Teaching Circle Goal:
to enrich both student and faculty experiences in undergraduate research (UR) by exploring and applying best-practices for effective faculty-student mentoring
Mentoring Network
Peer mentors
UR Ambassadors
UR Advocates
Empowerment
Diversity = Strength
Resources
Mentoring Handbook
Scholarship
Blog: UR mentoring
Professional Development
GEORGIA COLLEGE
Acknowledgements
Academic Affairs: Teaching Circle Grant: 2011-12
Undergraduate Research Initiative at Georgia College

APPENDIX III

Mentoring Handbook: Table of Contents

Overview
- -Goals of Handbook

Chapter 1: Mentoring Faculty
- -Responsibilities
- -Ethics
- -Why mentoring is important
- -Different mentoring models
- -Considerations
  - -Stages in career development
  - -Other barriers (i.e. underrepresented groups)
  - -Unique needs/challenges of faculty at liberal arts programs
  - -Unique structure of mentoring research at liberal arts 4-year education

Chapter 2: Mentoring Undergraduates
- -Responsibilities
- -Ethics
- -Why mentoring is important
- -Different mentoring models
- -Considerations
  - -Developmental
  - -Generational
  - -Other barriers (i.e. underrepresented groups)
  - -Unique needs/challenges of undergraduates
  - -Unique structure of mentoring research at liberal arts 4-year education

Chapter 3: Funding
- -Overview of grant writing
- -Funding for faculty research at GC
- -Funding for student research at GC
- -Funding for travel

Chapter 4: Research development: IRB and IACUC overview
- -When is approval necessary?
- -How to apply
- -Timeline and process of approval

Chapter 5: Data collection
- -Ethics
- -Considerations

Chapter 6: Presentation of research
- -Guidelines
- -Considerations

Chapter 7: Career advising
- -Guidelines
- -Considerations

Appendices

Research development
- -Sample IRB/IACUC proposal
- -Sample Research Posters
- -Sample Grant Materials

Mentoring Checklists
- -Taken from mentoring manual

APPENDIX IV

Reflections

This has been the best group I have worked with in a long time. I learned that I am not alone in my quest to inspire students to reach goals that they never thought they could. I learned that this group of individuals have a "can do" attitude and do. That individually we believe in the students and collectively we can help them believe in themselves. I learned that we all mentor undergraduate research a bit differently but yet the same in so many ways. It is encouraging to hear of the struggles and triumphs. And, most importantly, the work we are doing on the papers and the handbook have been rewarding. I believe structure is important (not to be rigid), but a guidebook for others who want to foster the mentoring experience but do not know how nor dare to try.

The Mentoring Teaching Circle was my first experience of its kind. As a non-faculty member, I had little expectations but the circle was amazing. It was a wonderful example of the whole being greater than the sum of its parts. The resources, experiences and energy of the individual members contributed to beginnings of a mentoring manual that will truly be interdisciplinary in its voice and concerns. Because the manual is to be for Faculty, Students and Staff, we took from each other what was the best and came to appreciate the commonalities within the member's disciplines and uniqueness that could be adapted for the benefit of all. I look forward to the commitment of the group to continue next year on the manual and next stage of this circle.

I have been really inspired by this circle and I truly think that being a member has reinvigorated my teaching and for doing it better. The passion exemplified by circle members has pushed me to another level of "greater expectations" for my students. I learned that there are myriad approaches for achieving the same outcome and that "diversity" alone is inspiring to me. I have also come to understand more deeply about what is means to be a member of a faculty in terms of advocating for what we think as professionals is right for our students and the responsibility that we have to champion these causes. I am indebted to our circle for the candid conversations that we have shared as I have found the circle to be a "safe" space for dialogue. I have benefitted from the circle members' willingness to share approaches to the work through the common readings and reflection, the new knowledge created, the scholarship that has blossomed from our collective work, and the network that has been developed.

I found it very useful to exchange ideas with other faculty on undergraduate mentoring of research students. This is of extreme importance to our physics program since undergraduate research not only helps retain our students but also motivates them. Also of importance was the dialog on faculty mentoring, which is also of concern and it is many times neglected. For that the reading and holding discussions on "faculty success through mentoring" by Bland et. al. was of extreme value to me. Being part of the faculty teaching circle was very enjoyable and helped me further my knowledge on mentoring.

The teaching circle has made me realize that we have similar goals for our students despite being from different disciplines. Anecdotes from fellow faculty members have taught me the true definition of experiential learning. I aim to put into practice many of the undergraduate best research practices that I was exposed to. The highlight of my circle experience was the day that all of the members shared documents representing how we mentor students. This circle solidified for me the opinion that Georgia College, as a small liberal arts institution, is a t the forefront of the 'teaching and learning' initiative and we need to get our strategies out there.

The Mentoring Teaching Circle to me as a new faculty member was a great experience where faculties from a wide plethora of disciplines shared their perspectives toward student mentoring using research as a tool. The circle provided me with several tools to foster student mentoring, yet being different from my subdivision of research. I believe the handbook and the guide will accumulate several tools which could be useful for student mentoring.

Although the major focus was on developing undergrad research, our teaching circle served to enhance the development of mentoring relationships among ourselves. Many of us met for the first time and learned about the talents and contributions of each other. The readings were raw and culturally relevant. They often led to lively discussions that resulted in a compilation of insightful mentoring examples across disciplines. Most of all, our teaching circle affirmed the professional dedication to academia despite limited funding and time. Thanks for mentoring me and encouraging me to be a part of this great group!

Honestly I can say that the best faculty experience I have had (in a decade)at Georgia College was the Best Practices Mentorship Teaching Circle for the Academic Year 2011-12 lead by Rosalie Richards and Hauke Busch. It was timely (we need concentration on undergraduate research at Georgia College), AND faculty-led (faculty tend to adhere much better to projects that spring from their own minds) which is unfortunately not always the case with academic initiatives in higher education. I learned a lot from the circle. The first thing I learned is that there are many faculty around Georgia College that have similar interests and ambitions to myself—but that I must look OUTSIDE my department and perhaps even Arts and Sciences to find them. I am truly grateful that I met such a wonderful group of faculty that are just as dedicated to undergraduate mentorship as I am (maybe even more)! The second thing I learned is that we as a department and a College are really not marketing ourselves as well as we should be (maybe we should get with the Marketing students and University Communications—seriously). People outside our immediate spheres DO NOT have any idea what we do to mentor our students, nor do they have any idea about the types of undergraduate research we do. We need to change this! (our department is currently developing a newsletter for our graduate students to publish to rectify this situation). The third thing I noticed is that we as faulty have the ability to share idea to greatly improve the mentorship/ quality of undergraduate research at Georgia College. Our mentorship manual should go very far to improve the dissemination of this information. I cannot wait to continue learning more and more from these other wonderful faculty. In Pre-Law this year we created a mentor ship program; I am currently writing a mini-manual for our program to add to our new brochures. We hope that all of the changes this year will increase the program size so we can increase student participation in undergraduate research at Georgia College.

Abstract

This study identifies mentoring best practices in undergraduate research as change agents for multiple stakeholders (i.e. student, faculty and the global community). For example, a research clinic for pre-law undergraduates provides legal briefs for appellate law cases, several reaching the Supreme Court level. Likewise, research by education majors has led to student appointments on the executive board of the National Council for Exceptional Children, a professional organization that shapes national policy. Similarly, published research by business majors has global impact, with work replicated in Ghana. In the sciences, first-generation students from poor, rural communities raise the capacities of their region.

Making A Difference

Georgia College & State University (GC) is a member of COPLAC (Council of Public Liberal Arts Colleges) COPLAC schools strive for a distinction though under-graduate research

As the state's public liberal arts university, Georgia College is committed to combining the educational experiences typical of esteemed private liberal arts colleges with the affordability of public higher education. This special role has led to impressive distinctions, which set us apart from our peers:

- Georgia College is listed in the annual report of "America's 100 Best College Buys";
- Georgia College was recently named one of the Top 50 Wireless Campuses in the nation (and was the only Georgia school to make the list);
- Georgia College is the only public institution in our state to be invited to join the prestigious "Colleges of Distinction";
- Georgia College has been named one of the 20 top public master's universities in the South by U.S. News & World Report.

Georgia College & State University
Milledgeville, GA 31061
Phone (478) 445-5004

GEORGIA COLLEGE
GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY

"Mentorship as an Agent of Change: Student, faculty and global community stakeholders"

Photos of authors in alpha-order by last name

USG Teaching and Learning Conference:

Best Practices for Promoting Engaged Student Learning

April 12-13, 2012
Helen, Georgia

Presenters:

Jennifer Hammack

Robin Lewis

Rosalie Richards

Paper by:

Koushik Banerjee - Chemistry

Hauke Busch – Physics

Amanda Chase - Microbiology

Jennifer Hammack – Government

Robin Lewis - Grants

Rebecca McMullen – Sp. Education

Catlin Powell - Psychology

Rosalie Richards - Chemistry

Doreen Sams - Marketing

What colleagues are saying about GC…

The University of Georgia and Medical College of Georgia actively recommend that students enroll in the Georgia College Master of Science in Biology program as further preparation for graduate and professional programs.

At an international meeting at Georgia Tech, a faculty member was recognized by her GC shirt. The student working stated she was a graduate from the Math Department at Tech. Her Graduate Advisor overheard the conversation and told the GC faculty member, "*Please send us more like her*."

An admissions dean from a prominent law school in Georgia found out that our Pre-law day was the same as a R1 university. She sent a staff member to the R1 because she didn't want to miss our students.

A Law School Dean told his admissions dean that GC students are consistently some of the best.

Mentoring Students in Undergraduate Research

At Georgia College, faculty career development includes undergraduates as researchers across all disciplines. A learning community of faculty representing diverse disciplines has been exploring mentoring in undergraduate research. As a collective we agree that the following practices (Shellito, 2001), when formalized, foster change agents of each constituent participating in or benefiting from the research experience:

1. Develop well-defined projects
2. Recognize students' time and constraints
3. Commit ample supplies and equipment
4. Understand and communicate expectations
5. Spend time with and become acquainted with students
6. Give positive constructive feedback
7. Be approachable
8. Respect students
9. Monitor progress/transition toward independence
10. Encourage presentations
11. Offer career advice
12. Provide continued mentorship

A ***Mentoring Handbook*** highlighting discipline-specific examples of formalized practices will be published at *gcsu.edu.*

Shellito C, Shea K , Weissmann G, Mueller-Solger A , Davis W. Successful mentoring of undergraduate researchers: Tips for creating positive student research experiences. *Journal of College Science Teaching*, 2001; 30:460-465.

Abstract

This study identifies mentoring best practices in undergraduate research as change agents for multiple stakeholders (i.e. student, faculty and the global community). For example, a research clinic for pre-law undergraduates provides legal briefs for appellate law cases, several reaching the Supreme Court level. Likewise, research by education majors has led to student appointments on the executive board of the National Council for Exceptional Children, a professional organization that shapes national policy. Similarly, published research by business majors has global impact, with work replicated in Ghana. In the sciences, first-generation students from poor, rural communities raise the capacities of their region.

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"Mentorship as an Agent of Change: Student, faculty and global community stakeholders"

Photos of authors in alpha-order by last name

Integrating Undergraduate Research Into Curriculum
2011-2012 Teaching Circle Proposal

1. Circle Members.

   Ryan Brown (Mathematics); Chris Greer (Education); Kalina Manoylov (Environmental Science); Chavonda Mills (Chemistry); Darin Mohr (Mathematics); Katie Simon (English); Chris Skelton (Biology)

2. Project Description.

   The purpose of this Teaching Circle is to investigate how to integrate undergraduate research into the curriculum. This integration will be considered both on a course-specific level and a program-wide level. It is well-known that students who engage in undergraduate research develop many intellectual traits, including independence, initiative, and persistence, that lead to successful lives. At Georgia College every student is required to complete a Capstone experience, but this culminating experience occurs toward the end of the student's term at GC, and many students have not developed the necessary skills to engage in a meaningful undergraduate research experience. One of the goals of this circle is to find and adapt effective models of integrating undergraduate research throughout the curriculum, providing students at all stages of intellectual maturity with appropriate research experiences and preparing them to engage in meaningful independent and creative endeavors as juniors and seniors. The circle members would produce undergraduate research course capsules, e.g. a project or assignment in Calculus I to develop students' ability to read a research article in mathematics. The circle members will also study successful models of programs that promote undergraduate research experiences.

3. Budget Outline

   We request $500. A portion of this (∼$300) will be used to purchase materials from the Council on Undergraduate Research including *Developing and sustaining a research-supportive curriculum: A compendium of successful practices.* (2007) edited by K. K. Karukstis and T. E. Elgren. The remainder will support a lunch-n-learn in which the circle's findings will be disseminated to the campus.

4. Chair

   Ryan Brown and Kalina Manoylov are the co-chairs of the circle. Ryan Brown will track the budget, coordinate the assessment of the brown-bag lunches, and maintain a repository for materials produced as part of the circle. Kalina Manoylov will coordinate the brown bag-lunches, and submit the final report.

Executive Summary: Teaching Circle

'Investigating how to integrate undergraduate research into the curriculum'

The purpose of the 'Investigating how to integrate undergraduate research into the curriculum' Teaching Circle was to bring together faculty from various disciplines to discuss possible efficient ways of incorporating undergraduate research into the GCSU curriculum. The goals of the teaching circle were (1) to become advocates for the GCSU faculty; (2) to define undergraduate research as a relevant part of classroom curriculum; (3) to gather ideas on doing research as part of the curriculum with examples of what worked and what didn't at different levels; (4) to document how different GCSU departments give credit to faculty for mentoring student research; (5) to find research program-wide good practices on national level that support undergraduate research; and (6) to showcase our findings in Spring 2012 inviting other interested faculty, chairs, CETL, and administration. There are several products of this teaching circle: Cross discipline application of undergraduate research; Dr. Simon will present a paper at a National American Literature Association conference (May 2012) on incorporating undergraduate research in non-STEM classrooms and at the COPLAC National meeting at the University Virginia, Wise (June 2012); many of the ideas explored were shared and discussed at the University-wide Symposium on Undergraduate scholarship in January 2012. Additionally, we have begun a directory of courses at GCSU that contain content on undergraduate research. These results were shared at a reception for GCSU faculty and staff and the Milledgeville community; the reception was held together with the thematically similar Teaching circle 'Effective Mentoring – Tools for Advancing Undergraduate Research at Georgia College."

Full Report for the 'Investigating how to integrate undergraduate research into the curriculum' Teaching Circle at GCSU

Drs. Ryan Brown and Kalina Manoylov-co-chairs, Chris Greer, Chavonda Mills, Darin Mohr, Katie Simon, Chris Skelton

Spring 2012

Abstract

During the 2011-12 academic year a group of seven faculty members formed a teaching circle to investigate how to integrate undergraduate research into the curriculum. We considered integration at both a course-specific level and at a program-wide level. It is well-known that

students who engage in undergraduate research develop many desirable intellectual traits that lead to successful lives including independence, initiative, and persistence. One of the goals of this circle was to find and adapt effective models integrating undergraduate research throughout the curriculum, providing students at all stages of intellectual maturity with appropriate research experiences, and preparing them to engage in meaningful independent and creative endeavors. In the poster session circle members will give examples of undergraduate research course capsules in biology, ecology, literature, and mathematics that we have developed for our own curricula. We will also present several successful models of programs that promote undergraduate research experiences in other Georgia College programs and at other universities. Panelists will initiate a conversation about best practices in integrating research into curriculum and discuss the various challenges associated with it.

1. Introduction and Goals

The 'Investigating how to integrate undergraduate research into the curriculum' Teaching Circle at GCSU has been a very productive and successful endeavor. This group grew out of GCSU's Undergraduate Research Initiative committee (Drs Richards, Brown, Busch, Manoylov and R. Lewis), and fits in well with the University mission and values. Clearly, undergraduate research can be incorporated in the curriculum from freshman to capstone level classes. The following challenges in incorporating research classes in the curriculum were outlined:

- Program wide good practices will differ between disciplines
- At what level students will be best suited for research, lower vs. upperclassmen
- Students involvement in research presents different challenges for professors in the classroom, therefore expectations should be different
- Discussion on capstones (as BOR, GCSU requirement) across disciplines

To achieve and share the products of these challenges, several sub-goals needed to be met. Our goals were:

1. Become advocates for faculty
2. Define undergraduate research as relevant part of classroom curriculum
3. Gather ideas on doing research as part of the curriculum with examples of what worked and what didn't at different levels

4. Research how different GCSU departments give credit to faculty for mentoring student research
5. Research program-wide good practices on national level that support undergraduate research
6. Showcase findings in Spring 2012 inviting other interested faculty, chairs, CETL and administration.

Regarding these goals, we feel that we have been quite successful as will be outlined in the document below.

2. Process

Utilizing the teaching circle model, most of the work of the Teaching Circle centered on coffee or lunch meetings. These times were used to collaborate, and often ideas would "take off" as each person added their own input and offered new findings relevant to what had previously been discussed. Since each person had completed research (or other assignments) *before* the meeting, each member was able to contribute meaningfully and no time was wasted. Rather than being handed down by one person, assignments were planned as a group, and were discussed at the following meeting. For example, many published sources on undergraduate research were gathered by the circle were discussed. One of the readings we did as a group (Elrod et al. 2010) offered many high- impact educational practices that will result in original intellectual or creative contribution by undergraduate students. Students with the feeling of ownership of the project become independent over time and disseminate their findings with passion and conviction. One of the biggest findings for us was that at any time along the student's learning progression undergraduate research can be relevant, stimulating and beneficial for our students. It is never too late or too early for a student to start if the research project engages students on multiple dimensions- intellectual and practical skills, personal and social responsibility, and integrative and applied learning.

3. Goals Met and Final Products

Of the goals listed above (section 1), all were met by the Teaching circle this academic year. During our first meeting, the group discussed definitions of undergraduate research from various perspectives (**goal 1**) and found common ground starting with the 6 disciplines in the

circle for becoming advocates for faculty from the circle and outside of the circle. To support those innovative approaches by us and others, we made a concerted effort to introduce others to ideas from our classes and started a web page for related material posting and discussion.

For **goal 2**, we defined undergraduate research as a broad base participation of students from parts of the curriculum and classroom teaching to outside of the classroom process of testing hypotheses, analyzing collected data, and reporting findings.

Several distinct teaching modules (*Appendix 1*) focusing on undergraduate research at different levels were discussed by the circle (**goal 3):**

Incorporating Research into Freshman Classes:

GC1Y Critical Thinking: Assignment drawn from Katie Simon's Fall 2011 Interacting with the Past Through Literature, The Salem Witch-Trials of 1692; Steps:

1) Critical Summaries (Structured Responses to Assigned Scholarly Articles)
2) Library Visit: Introduction to Search Methods and Types of Sources
3) Group Project: Create a Counterfactual Game
4) Development of List of Historical Characters needed to play the game, and selections
5) Annotated Bibliography (like a Literature Review)
6) The Research Paper: A Written Speech for the counterfactual trial in character
7) The Research Presentation: Performance of the Role in Character
8) Participation in the Game in Character by creating two questions per day to be presented to particular historical figures.

BIOL 1108- Biological principles- C. Skelton; Field and lab based experimental work with calculation of community indices and wide practical application.

MATH 1261- Mathematics- D. Mohr - Critical thinking; students were practicing reading published literature and writing summaries related to their research

Incorporating Research into Sophomore Classes:

BIOL 2800- Ecology, Fall 2011- K. Manoylov; new ecological concepts tested with experimental or observational studies; data gathered and analyzed, results summarized, peer-reviewed and evaluated as a class; this class is required class for both Biology and Environmental sciences majors.

Incorporating Research into Junior and Senior level Classes: In almost all GCSU departments 3999 and 4999 classes are used for independent research and/or capstone research. In Biological and Environmental Sciences those classes are one of several capstone options for graduation. In other Departments like Chemistry and Physics, and Psychology Departments those classes are required for graduation and as part of the Capstone requirement students have to present their results at least at the GCSU Undergraduate Research Conference.

There are several departments at GCSU (**goal 4**) where undergraduate research is an important part of teaching and the undergraduate curriculum. The Department of Chemistry and Physics has a well-functioning Undergraduate Scholars Program that spans four years and forms an integral part of student learning (*Appendix 2*). The Department of Psychology supports faculty efforts in undergraduate research with teaching load of 3/3 a year and encourages faculty to involve undergraduates at every level of education.

Presented as Appendix 3 our findings (**goal 5)** revealed that other institutions have sustainable funding sources for undergraduate students and faculty on a yearly basis (*Appendix 3*).

Another product of the work done in the teaching circle was the reception held at Digital Bridges on April 25th (**goal 6**). The purpose of this reception was to share the results of our Teaching Circle and the Teaching Circle on 'Effective mentoring" and to discuss with others undergraduate research ideas brought by other Faculty. The invitation was sent via email and personal contact to GCSU faculty and many groups (the Honors program, CETL, Academic affairs office etc.). After a brief introduction of our goals and definitions of undergraduate research, the floor was opened up for discussion. People outside of our circle introduced their undergraduate research related concerns and successes, and others asked questions about the various projects. The event was book-ended with snacks and a poster session, including a poster of modules created by the Teaching Circles, as well as other undergraduate projects from GCSU. We believe the reception was well received and noted at least 23 people in attendance. These included GCSU faculty from several departments (Biological and Environmental Sciences, Sociology, Psychology, Mathematics, Chemistry, Marketing, Education and others), and some members of the Administration.

4. Final Insights

Through careful planning, focus, and hard work, the circle members we were able to achieve all

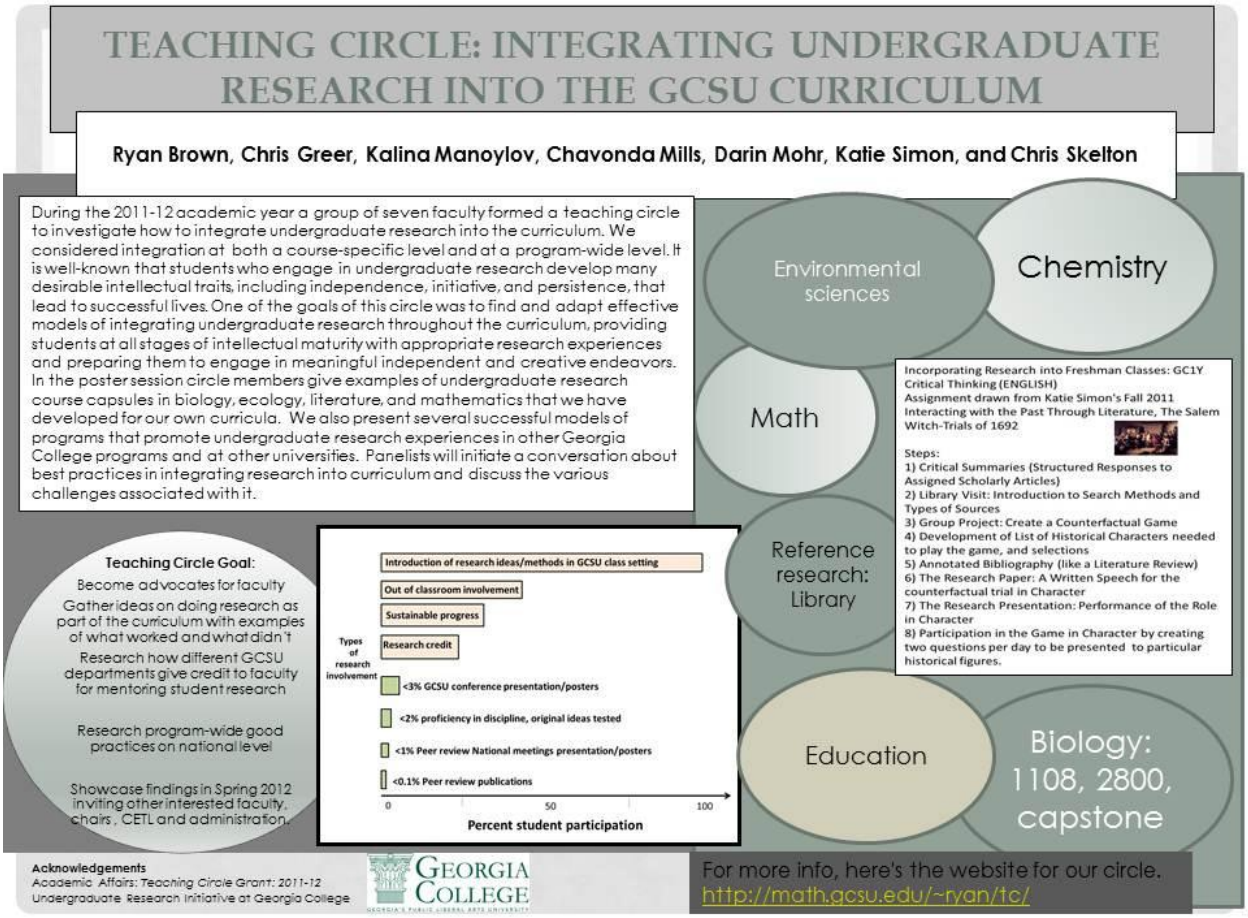
of our goals. However, we also gained insights and inspiration that were unexpected. For example, many of the findings of our circle overlap with other circle or committee's discussions as evident at the reception. As a result of incorporating undergraduate research in the GCSU curriculum Dr. Stephanie McClure summarized the higher participation of undergraduate students at the GCSU research symposium, which resulted in high quality research and participation of several of our students at the COPLAC research conference held on campus. Overall, this experience has proven to be highly successful and rewarding, and we would recommend the teaching circles model to any faculty member.

For more info, here's the website for our circle: http://math.gcsu.edu/~ryan/tc/

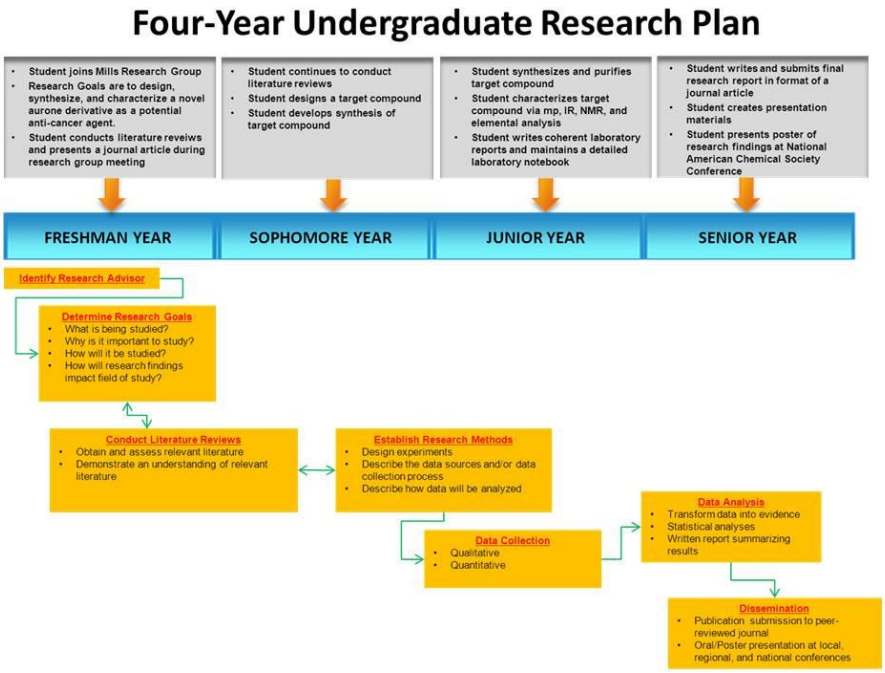
(See attached appendices)

Posters handed out at the reception **"Undergraduate research in GCSU curriculum",** *April 25th, 2012, Digital measures, Georgia College & State University.*

Appendix 1.



Appendix 2.



Appendix 3

References:

Elrod, S., Husic, D. and Kinzie, J. 2010. Research and discovery across the curriculum. AAC&U, peer review analysis. Pages 4-8.

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Undergraduate Scholarship Symposium

Georgia College
January 28, 2012

Agenda

Developing a roadmap for sustainable and meaningful undergraduate learning through student-faculty collaboration on research and creative endeavors

8:30 – 09:00 am	Coffee & Childcare Arrangements	Kilpatrick Atrium
9:00 – 9:30	Welcome & Overview	Peabody Auditorium
9:30 – 10:15	Vision	Break-Out Sessions
10:15 – 10:30	Coffee Break	Kilpatrick Atrium
10:30 – 12:00	Inventory	Break-Out Sessions
12:00 – 12:45 pm	Lunch	Kilpatrick Atrium
12:45 – 2:15	Action Plan	Break-Out Sessions
2:15 – 2:30	Coffee Break	Kilpatrick Atrium
2:30 – 3:30	Action Plan	Break-Out Sessions
3:30 – 4:00	Sharing Plans (5 min/team)	Peabody Auditorium

Proposed Follow-up Dates

Feb 17, 2012 Friday, 2:00 - 5:00 pm
Due: Implementation Report

Mar 16, 2012 Friday, 2:00 - 5:00 pm
Due: Implementation Report

Fall 2012
Follow-up symposium
Due: Departmental implemental presentations and next steps

Break Out Rooms

Kilp 223	Chem, Art, Math (Julia Metzker)
Kilp 224	Gov't/Soc., Phys (Kalina Manoylov)
Kilp 226	Business, Biol/Env (Ryan Brown)
Kilp 227	Edu. Archive , Kines. (Rosalie Richards)

The Engaged Learning Workshop Series on Undergraduate Scholarship is supported by the Center for Teaching & Learning (CETL) at Georgia College.

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Undergraduate Scholarship and Creative Activity at Georgia College

January 28, 2012

For faculty by faculty

Welcome

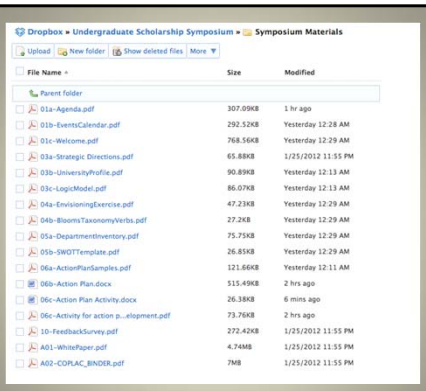
Acknowledgements

- CETL support
  - Steven Elliott-Gower and Sara Stevens
- Team leaders from departments and disciplinary groups
- Council of Public Liberal Arts Universities (COPLAC) Council of Undergraduate Research (CUR)
- Kathleen Whatley - Provost, Berry College
- Katie Simon – workshop planning

Housekeeping

- Facilities
- Follow-up sessions (Feb 17, March 16)
- Stipends
- Binders – for archiving your disciplinary work
- DropBox – for sharing our work

For faculty by faculty



For faculty by faculty

Background

- **August 2010**: GC invited to contribute to a COPLAC consortium proposal to CUR
- **June 2011**: GC team participates in 3-day working conference at UNC-Asheville and develops action plan
  - STEM-focused (National Science Foundation grant)
  - GC team efforts were directed at ***all disciplines***

For faculty by faculty

GC Team to COPLAC

Hauke Busch - Physics

Robin Lewis– OGSP

Rosalie Richards – Chemistry/Science Education

Kalina Manoylov- Biology

Ryan Brown– Mathematics

For faculty by faculty

COPLAC-CUR Working Conference

Background

- **July 2011**: *A Vision for Undergraduate Research* written by GC team
- **Fall 2011-Present**: Continued implementation of action plan

For faculty by faculty

Benefits of Undergraduate Scholarship

- Undergraduate students engaging in research acquire a spirit of **inquiry** and **creativity**, grow intellectually, develop **leadership** abilities, **independence**, **initiative**, sound **judgment**, **persistence**, **alertness**, and **patience**.
- Faculty mentors maintain **enthusiasm**, professional **competence**, and scholarly **productivity**.

For faculty by faculty

CUR Definition of Undergraduate Scholarship

- An inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline.
- The four elements of Undergraduate Scholarship are **Mentorship, Originality, Acceptability, Dissemination**.

For faculty by faculty

Elements of Undergraduate Scholarship

Mentorship

- Collaborative
- Serious interaction
- Clear goals
- Focus on student
- Focus on learning process
- Intellectual engagement by student
- Disciplinary socialization

Originality

- Meaningful contribution by student
- Should be entirely or partially novel
- It's okay to reveal more questions than answers

For faculty by faculty

Elements of Undergraduate Scholarship

Acceptability

- Employs techniques and methodologies that are both appropriate and recognized in the discipline
- Includes a reflective/synthetic component that is appropriate to the discipline

Dissemination

- There needs to be a final, tangible product for which both the process and results are peer-reviewed, critiqued, juried, judged, etc.

For faculty by faculty

Continuum

- Student, process centered
- Student initiated
- All students
- Curriculum based
- Collaborative
- Original to the student
- Multidisciplinary
- Campus/Community audience

- Outcome, product centered
- Faculty initiated
- Honors students
- Co-curricular fellowships
- Individual
- Original to the discipline
- Discipline based
- Professional audience

For faculty by faculty

Support of Undergraduate Scholarship at Georgia College

- Capstone requirement
- Experiential Transcript
- Student Research Conference
- *The Corinthian*
- *The Peacock's Feet*
- Faculty Research Grants
- SGA Travel Funds
- Departmental Initiatives, e.g. Chemistry Scholars
- Faculty Awards
- Others

For faculty by faculty

Recommendations from White Paper to Provost and VP of Academic Affairs

- Craft Undergraduate Scholarship learning outcomes
- Establish a credit system for faculty mentorship
- Establish a Center for Undergraduate Scholarship
- Provide funding for Undergraduate Scholarship

For faculty by faculty

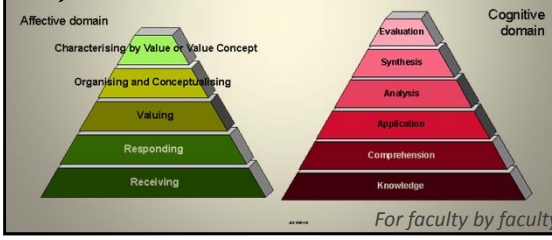
What will we do today?

- Set Goals
- Establishing Benchmarks
- Developing a timeline
- Develop a communication plan
- 5-min presentation of your plan
- Location: break-out sessions and teams

For faculty by faculty

Next: Setting Goals Breakout Rooms

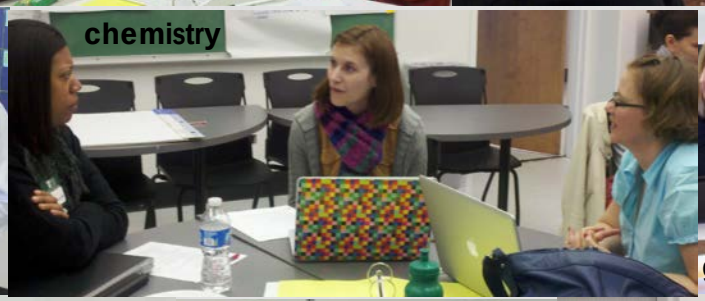
- **Inquiry, creativity, leadership, independence, initiative, judgment, persistence, alertness, patience**



For faculty by faculty

UNDERGRADUATE SCHOLARSHIP SYMPOSIUM AND WORKSHOPS

Larry Bacnik, Rebecca McMullen, Stephanie McClure, Katie Simon, and Rosalie Richards



Goal: for departments to develop roadmaps to advance faculty-student research

Faculty shared cross-disciplinary ideas and proposed activities

11 departments
14 programs
31 potential mentors

Supported by CETL, IC-bG and URI at Georgia College

Publications

(The names of undergraduate researchers are in bold)

2012

Cornay, R.J. and A. J. Mead. Enamel hypoplasia in Virginia opossums, Baldwin County, Georgia. Accepted *Georgia Journal of Science* (June 2012)

Dominy, J.N. and Manoylov, K.M. Algal biodiversity as a measure of ecosystems recovery after kaolin mine operations in middle Georgia. Accepted *Southeastern Naturalist* (July 2012)

Freile, D., DeVore, **M. Boyle**, and **Maitner, R**. IN PRESS. Carbonate productivity rates in Graham's Harbour, San Salvador Island Bahamas. Published Proceedings of the 15th Symposium of the Geology of the Bahamas and other carbonate regions

2011

Chandler, H.C. and D. Parmley. 2011. *Hyla gratiosa* (Barking Treefrog): First Baldwin County record. Herpetological Review 42(2):237.

Chandler, H.C. and D. Parmley. 2011. *Terrapene carolina* (Eastern Box Turtle): First Baldwin County record. Herpetological Review 42(2):239.

Markand, S., D. S. Bachoon, L. Gentit, **Sherchan, S.** and K. Gates. 2011. Evaluation of Physical, Chemical and Microbiological Parameters of Water Quality in the Harris Neck Estuarine Marshes along the Georgia Coast. Marine Pollution Bulletin. 2011. **62**, 178-181.

Satnik, A., Keltner, K., Bruce, K., **Snell, J., Law, M,. Furgerson, M**., Nix, D., Gleason, M. (2011) The Furin Cytoplasmic Domain is Localized to the trans-Golgi Network of Yeast, International Journal of Biology, *3(3):3-17.*

2010

Bachoon, D.S. **C.M. Miller**, C. P. Green, and E. Otero. Comparison of Four Polymerase Chain Reaction Methods for the Rapid Detection of Human Fecal Pollution in Marine and Inland Waters. International Journal of microbiology. 2010, 7-13.

Barkovskii, A.L., **Green, C**., Hurley, D. 2010. The Occurrence, Spatial and Temporal Distribution, and Environmental Routes of Tetracycline Resistance and Integrase Genes in *Grassostrea virginica* Beds, Marine Pollution Bulletin, 60, 2215-2224.

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Chandler, H.C. and C.E. Skelton. 2010. *Lampropeltis getula nigra*. (Eastern Black Kingsnake). Geographic Distribution. Herpetological Review 41:516

Skelton, C.E. and **H.C. Chandler**. 2010. *Eurycea guttolineata* (Three-lined Salamander). Geographic Distribution. Herpetological Review 41:505.

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Department of Biological and Environmental sciences

Undergraduate Research Highlights

March 2010-March 2012

Awards

Hannah Sadowski

- Georgia College Academic Recognition Day Student Representative (2012)
- Phi Kappa Phi Study Abroad Scholarship (2011)
- American Geophysical Union Student Travel Grant (2011)

Sarah Hazzard

- American Geophysical Union Student Travel Grant (2011)

Michele Weilbacher

- 21st North American Diatom Symposium, Travel Award (2011)

Melanie Wooten

- Georgia College Undergraduate Commencement Speaker (2011)

Ryan Walker

- AGI MPP Scholar, American Geological Institute (2011)
- Dr. Aurelio M. Caccomo Family Foundation Memorial Scholarship (2011)

Maxwell Mangrum

- Geological Society of America Travel Grant (2010)

Patrick Doran

- Geological Society of America Travel Grant (2010)

Presentations

2012

Berry, L. (2012). Incorporating Service Learning into Honors Options and Academic Research. Georgia Collegiate honors council 2012 meeting - *Oral presentation*

Berry, L, S. Mutiti & S. C. Hazzard. (2012). Heat as a Natural Tracer in Wetland Groundwater Flow, Georgia Academy of Science (GAS) annual meeting in Kennesaw, GA - Abstract

Davis, H. S. and A. J. Mead. 2012. A preliminary analysis of enamel hypoplasia in white-tailed deer from the Piedmont National Wildlife Refuge, Georgia. Georgia Journal of Science 70(1): Abstract

Hazzard, S., S. Mutiti, and L. E. Berry. (2012). A GIS Method to Analyze Shallow Electrical Resistivity and Groundwater Flow in Wetlands. Georgia Academy of Science (GAS) annual meeting in Kennesaw, GA – Abstract

Sadowski, H, S. Mutiti, C. Melvin, S. Hazzard and L. E. Berry. (2012). The Capacity of a Structurally Unique Wetland to Filter Urban Pollutants. Georgia Academy of Science (GAS) annual meeting in Kennesaw, GA – Abstract

2011

Berry, B., S. Mutiti, **S. C. Hazzard**. (2011). Determining the Hydraulic Conductivity of the Subsurface in Wetland Environments. American Geophysical Union, Fall Meeting 2011 - Poster presentation

Brittain J.T., K.M. Manoylov and S. Mutiti. 2011. Water Quality in The Lower Oconee River, Georgia, Georgia Academy of sciences meeting, Gainesville State College, Vol. 69 No. 1 – 2011, ISSN: 0147-9369.

Cornay, R. J. and A. J. Mead. 2011. Analysis of enamel hypoplasia in Virginia opossums, Baldwin County, Georgia. Georgia Journal of Science 69(1):22-23.

Dominy, J.N., K.M. Manoylov, E. France, **M. Christopher** and M. Potapova. 2011. Population dynamics within benthic diatoms from different aquatic habitats. 1st International Conference "The Molecular Life of Diatoms" June 5th-9th 2011, Georgia Institute of Technology, Atlanta, GA USA.

Doran, P., D. Oetter, S. Mutiti, A. Mead, **M. Mangrum**, **R. Lindsey, C. Hobson, C. Melvin, and C. Seo**. 2010. Reconstruction of the historical geomorphology of a dynamic stream in Middle Georgia. Geological Society of America, Abstracts with Programs 42(5):291.

Holman, N., Mcgee, B., Borries, B., Mutiti, Samuel, Oetter, Doug, and Otto, K. (2011). Using Groundwater Flow Models and Geochemical Analyses to Understand Surface Water and Groundwater Interactions at a Historic Site In Milledgeville, GA. Poster presentation at GSA South-eastern Section - 60th Annual Meeting, Paper No. 1-30.

Mangrum, M., S. Mutiti, **P. Doran**, D. Oetter, A. Mead, **C. Seo, C. Melvin, R. Lindsey, and C. Hobson.** 2010. Investigating the hydrologic connection in a complex river floodplain system in middle GA. Geological Society of America, Abstracts with Programs 42(5):291.

Manoylov, K.M., E. France, J.N. Dominy, **M. Christopher** and M. Potapova. 2011. New approach for algal biodiversity assessment from aquatic habitats in Southeastern US. 1st International Conference "The Molecular Life of Diatoms" June 5th-9th 2011, Georgia Institute of Technology, Atlanta, GA USA.

Melvin, C., S. Mutiti, D. Oetter, **T. Lumpkin**, **E. Crowe**. 2011. Examining Hydrologic Connections of Basins, in Central Georgia, with Respect to Overtopping of Sidewalks During Rainfall Events. Poster presentation at GSA South-eastern Section - 60th Annual Meeting (23–25 March 2011), Paper No. 1-30.

Sadowski, H., S. Mutiti, **C. Melvin**, **S. Hazzard** and **L. E. Berry**. (2011) Urban Wetlands' Filtration of Pollutants in Milledgeville, Georgia. American Geophysical Union, Fall Meeting 2011- Poster presentation

Treat, A., J. Binkowski, E.H. Barman, W. P. Wall, and **R. J. Wilkes**. 2011. A Preliminary report on interspecific variation in cranial architecture and mandibular geometry in agabine (Coleoptera: Dytiscidae) larval co-inhabitants of a temporary habitat. Ga. J. Sci. 69: 25 (abstract).

Weilbacher, M., and Manoylov, K.M. Growth of diatom cultures under different in-vitro conditions. 21th North American Diatom Symposium, Flathead Lake Biological Station, Polson, MT, 14-18 September, 2011.

2010

Borries, B Samuel Mutiti, **B. McGee** and **N. Holman**. 2010. A Quick and Automated Stream Design Model Using ArcGIS Modelbuilder Coupled with Groundwater Flow**.** North Carolina State University (NCSU) Stream Restoration Conference *(Nov, 2010)*

Cornay, R.J. and A. J. Mead. 2010. A preliminary description of the Pleistocene rodents from Clark Quarry, Brunswick, Georgia. Georgia Journal of Science 68(1):39.

DeVore, ML, D Freile, **R Maitner**. 2010. Sediment production by the deep-water calcareous green alga *Halimeda copiosa*, Roatan Island, Honduras. 15th Symposium of the Geology of the Bahamas and other carbonate regions.

Dominy, J.N. and Manoylov, K.M. 2010. Algal biodiversity as a measure of ecosystems recovery after kaolin mine operations in middle Georgia. Regional Southeastern Phycological Colloquy. Center for Marine Science University of North Carolina, Wilmington, NC, October 29-30, 2010.

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Mathias, K. T., E. H. Barman, and W. P. Wall. 2010. A preliminary analysis of ontogenetic changes in cranial architecture and mandibular geometry during the larval development of *Dytiscus carolinus* Aubé (Coleoptera: Dytiscidae: Dytiscinae). Ga. J. Sci. 68:18 (abstract).

Weilbacher, M.E., and Manoylov, K.M. 2010. Allometric relationships of common *Cymbella* species in anthropogenically altered environments in Lake Sinclair, Baldwin County, Georgia. Regional Southeastern Phycological Colloquy. Center for Marine Science University of North Carolina, Wilmington, NC, October 29-30, 2010.

Undergraduate Scholarship
Follow-Up Session

17 February 2012

I. Reports:

Biology
- Put together a brochure highlighting accomplishments.

Math
-Not much work has occurred.

Education
a. Talked to chair
b. Refresher work on different types of research
c. Working with students in field

Physics
a. Discussions about fixing Physics Scholars Program
b. Working to come up with research projects
c. Addition of brochure to action plan
d. May count research credits as overload

Art
a. Finalized action plan
b. Department already set up to prepare students for graduate school
c. Trying to figure out way to help with faculty workload
d. Looking over other action plans
e. Surveys of student and faculty
f. Asking for undergrad scholarship committee to be established
g. Need more faculty, space, and incentives (like everybody else)
h. Imbalance of work between faculty who are engaged and those who are not

□overnment□Sociology

a. Each program in department working on own action plan
b. Need to finish program goals revision before moving forward
c. Working on an inventory of current activities in department
d. Sociology redesigned senior capstone (□hrs in course □ □hrs in other option)
  i. Distinguish between ugrad research and independent study and internship
  ii. Also accommodating students who don□t want to do one of other three
  iii. Fourth option is capstone course (12-1□ students)
  iv. Using capstone course to help with faculty research
  v. Sandra □odwin using students for literature review for book project
  vi. Some students continue on past course to pursue further research

□inesiology and Exercise Science

a. Inventory of departmental activities
b. Recruiting students
c. Submitted grant application to support student research
d. Student and faculty club to coordinate and disseminate information

Archival Research

a. Area B course development
b. Library working its way into the core
c. Finding ways to work around departmental structural obstacles
d. □ollaborative teaching assignments to bolster scholarship

Marketing

a. Develop separate course that is independent research course
b. Newsletter and pamphlet highlighting success
c. Develop a fund for external clients to contribute when students do work for free
d. Next step: Inventory of department activities

II. Useful ideas from action plans

1. Brochure with accomplishments. See biology example in Dropbox.
2. Include anecdotal information beyond raw data.
□. Mass □ommunication could produce videos with student success stories.
□. Target specific groups of students for research projects
□. Make Student Research □onference peer reviewed, same for The □orinthian.
□. Digital Measures should accommodate undergraduate scholarship mentorship in scholarship.
7. S□A has a pot of money. □ne can ask a Senator Erin □antt to write a bill that will appropriate money for specific student activities.

GEORGIA COLLEGE
GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY

By Faculty for Faculty:

Promoting, nurturing and sustaining undergraduate research through faculty networks at Georgia College

COPLAC 2012+

Larry Bacnik (ED), Rebecca McMullen (ED), Stephanie McClure (SOC), Katie Simon (ENG), and Rosalie Richards (CHEM)

Overview of UR at Georgia College

- Signature program developing
  - What is possible for GC/what is our model as a public liberal arts college? (challenge)
- Grassroots, networked strategy
  - How is the model being achieved? (challenge)

Challenge 1: Inclusivity and Sustainability

- **Strategy:** Teaching Circles, UR Symposium
- **Strategy:** Mentoring Network

Challenge 2: Antiquated Models of Research

- **Strategy:** Develop institutional definition of UR
- **Strategy:** Cross-disciplinary work/envisioning exercises

Challenge 3: Valuing UR

- **Strategy:** Lab courses, capstone courses
  - Building research into the curriculum
- **Strategy:** Developing faculty careers that include undergraduates as researchers
  - Classroom as lab

Challenge 4: Recruitment and Retention of Students

- **Strategy:** Understand institutional challenges and how UR addresses them
- **Strategy:** Understand and be able to articulate how UR gives students a range of career/life skills (beyond grad school)

Challenge 5: Recruitment & Retention of Faculty, Staff & Administrators committed to UR

- **Strategy:** Build UR into search process
- **Strategy:** Creative incorporation of UR into load, evaluation & reward structure

Resources

- **Web site:** http://math.gcu.edu/~ryan/tc
- **Blog:** http://undergraduateresearchmentoring.blogspot.com

Contact Information

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stephanie.mcclure@gcsu.edu
larry.bacnik@gcsu.edu
science@gcsu.edu

Acknowledgements

- Academic Affairs Teaching Circles Mini-Grant Program
- Center for Excellence in Teaching and Learning
- Innovative Course-Building Group
- Council of Deans
- CUR
- COPLAC

Group Work ~ 30 minutes

- Your handout shows **five** identified challenges
- Choose a challenge that resonates well with you; one that you want to explore
- Form groups with the same challenge number (1-5)
- Discuss the question(s), share ideas, and identify strategies/resources associated with the challenge
- Choose a recorder/presenter to summarize discussion (2 minutes)

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Institutionalizing Undergraduate Research: Challenges and Strategies

Challenge	Strategy
1. inclusivity and sustainability	***Is your definition of UR inclusive?*** (a) cross-disciplinary definition of UR ***Is UR a sustainable program at your institution?*** (a) cross-discipline/cross-institution mentoring network (b) teaching circles (c) symposium and follow-up workshops (d) best practice models (developmental, faculty load, mentoring, curriculum-imbedding, decision-making, resource allocation, collaboration with administrators and staff, building allies, institutional support
2. antiquated models	***What is your model for UR possibilities at your public liberal arts college? How does the private liberal arts model work/or not work in a public university setting?*** (a) envisioning exercises (b) UR learning outcomes (c) values rubrics (d) other assessments (e) action plans for implementation (f) shared terminology
3. valuing UR	***How does your institution value UR in a practical way? What are your specific practices and policies that encourage/support student participation in research?*** (a) teaching load – course load (independent study, capstone courses, research methods, research, mentoring); credits; overload; tenure, promotion (b) courses as lab course – built-in time for reflection, argumentation, application; (c) the classroom as the lab – scholarship of teaching & learning, IRB training, IRB for each course so that students' research becomes our research (d) collaborations among faculty (e) program/departmental faculty evaluation rubric
4. recruitment and retention - students	***How can UR help your institution achieve fiscal and reputational interests?*** *Managerial/business approach:* conversations with administrators should underscore how UR addresses their primary concerns: (a) *recruitment:* offers tangible skills – Experiential Transcript; mentoring opportunities (b) *retention:* – engagement enhances retention – mentoring; showcase opportunities – student research conference; student publications, travel (c) *accreditation* – institutional quality (d) *community engagement* – reputation, town and gown (e) *state/national distinction* – public relations, branding
5. recruitment and retention – faculty/staff/administrators	***What is your model for developing faculty/staff/administrative careers that include undergraduates as researchers? How can we develop faculty/staff/administrative careers that include undergraduates as researchers?*** (a) recruitment – signaling UR in job descriptions; highlighting UR resources, opportunities and activities (b) retention – UR advocacy; institutional support (time and funding); outcomes for promotion, tenure; mentoring; UR resources, opportunities and activities

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Institutionalizing Undergraduate Research: *first year action plan, activities and cost analysis*

Timeline	Action Plan Activity	Description	GC contribution
Pre-COPLAC Conference	Survey faculty I	First survey to faculty (Aug. 2010) URI Committee prepares for COPLAC-CUR Conference: conducts self-study - inventory and faculty attitudes to UR	$ 0
2011			
June	COPLAC-CUR Conference	URI Committee participates in the COPLAC-CUR ***Institutionalizing Undergraduate Research Conference*** at UNC-Asheville	$ 300
July	Cultivate administrative support	URI Committee presents ***white paper*** recommendations to Provost	$ 0
August	Broaden participation	URI Committee initiate ***conversations*** with faculty champions of UR	$ 0
September		URI Committee writes two mini-grant proposals for teaching circles to support best practice study of (1) UR mentoring and (2) integration of UR into the curriculum	$ 0
October	Mobilize faculty	***UR Teaching Circles*** initiate; circles form the nucleus for campus-wide dissemination Circles meet monthly from October 2011 to April 2012	$1,000
November	Survey faculty II	Second survey to faculty to identify faculty needs for UR: institutional coordination, resources, support	$ 0
December		URI Committee, faculty champions and IC-bG develop plans for an undergraduate research symposium	$ 0
2012			
January	Campus-wide dissemination	CETL/IC-bG hosts day-long ***Undergraduate Scholarship Symposium*** for 13 departmental teams to work on UR goals and action plans; voluntary activity furthers grassroots movement; provide buffet-style lunch and childcare (Saturday event)	$ 700
February	Campus-wide conversations Survey to faculty III	***Symposium Follow-up Workshop***– departmental teams provide updates and propose cross-disciplinary ideas/activities Survey collects data about prospective director of Engaged Learning and Coordinator of Undergraduate Research	$ 0
March		GC announces job description for ***Director of Engaged Learning and Coordinator of Undergraduate Research***	$ 0
		Symposium Follow-up Workshop– departmental teams provide updates and propose cross-disciplinary ideas/activities	$ 0
April	Statewide presentation	***Mentoring Teaching Circle*** faculty (3) present at the USG Engaged Learning Conference (Helen, GA)	$ 800
		UR Mentoring Handbook outline drafted	
	Broaden participation	UR Teaching Circles host university-wide ***Dine & Learn***: poster session showcase and open discussion of UR best practices (cost from circle)	$ 0
		GC hosts ***COPLAC Regional Undergraduate Research Conference***	$ 0
May	Cultivate administrators' support	URI Committee presents ***Year One Report*** to *Council of Deans:* deans commit resources to support for GC faculty team to present at 2012 COPLAC Conference	$ 0
June	National dissemination at COPLAC	URI Committee presents ***Year One Report*** at *COPLAC-CUR Workshop* GC faculty team conduct **workshop** at *Annual COPLAC Conference*	$2,800
	National dissemination at CUR	URI Committee members present poster at **CUR** (free registration for one URI Committee member)	$1,500
	Strategic focusing	Cross-disciplinary team of faculty and staff ***craft UR learning outcomes and action plan*** at IC-bG Summer Institute	$ 150
	Cultivate administrative support	GC announces director of engaged learning and coordinator of UR and launches ***Center for Engaged Learning***	$ 0
		TOTAL	**$7,250**

UR Resources @ Georgia College:
Contact: science@gcsu.edu

math.gcsu.edu/~ryan/tc	***www.gcsu.edu/art/peacocksfeet.htm***
undergraduateresearchmentoring.blogspot.com	***www.gcsu.edu/oconnor***
www.gcsu.edu/engagement	

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A journey towards institutionalizing undergraduate research: Year One

Rosalie A. Richards, Robin Lewis, Kalina Manoylov, Ryan Brown, and Hauke Busch

Georgia College

This past year, Georgia College launched an Undergraduate Research Initiative aimed at institutionalizing UR. A self-study documented existing institutional elements, practices, but few policies that encourage/support student participation in research This presentation highlights findings from the self-study and first-year action plan. We also offer recommendations that may prove useful in mobilizing faculty and administrators in advancing UR.

UR Practices & Policies

Practices

- Experiential Transcript
- Student Journals (x3)
- Student Research Conference
- Mentor Award

Policies

- Mission/strategic directions identify engaged learning
- Scholarship requirement for T&P; not identified as student-faculty

CUR Institutionalizing UR Workshop at COPLAC

A UR symposium team: biology, marketing, psychology

The UR Initiative

Challenges & Strategies

Challenge	Strategy
institutionalizing UR	**Professional development** i. *Undergraduate Research Initiative Committee* – for core group to learn about UR best practices in order to lead the institutionalization initiative ii. *Faculty champions – to (a) identify invested faculty; and (b) expand learning about UR best practices* a. Pre-conference work (committee only) b. COPLAC-CUR Conference (committee only) c. Teaching Circles and Showcase d. Symposium/Follow-up e. Leading UR Conference f. IC-bG Summer Institute
broadening communication about URI	**Communication** i. White-paper to administration ii. Survey II iii. Teaching Circles and Showcase iv. Symposium/Follow-up
expanding URI conversations with top administrators	**Communication** Managerial Approach: *Conversations and reports to administrators underscore how UR achieves their primary concerns such as fiscal and reputational interests including (a) recruitment and retention of students/faculty/staff; (b) accreditation; (c) community engagement;; and (d) state/national distinction.* i. White paper to the Provost and VP of Academic Affairs ii. URI Report presentation to the Council of Deans iii. Conversations about the URI/White Paper with university President at a Student Research Conference meeting

UR Initiative Cost Analysis

Timeline	Action Plan Activity	GC contribution
Pre-COPLAC Conference	Survey faculty I UR Self-study	$ 0
June	COPLAC-CUR Conference	$ 300
July	White paper to Provost	$ 0
September	Identify faculty champions; initiate conversations	$ 0
October	Monthly *UR Teaching Circles* initiate	$1,000
November	Survey faculty II	$ 0
December	Develop plans for UR symposium	$ 0
January	Day-long *Undergraduate Scholarship Symposium* for 13 departmental teams	$ 700
February	*Symposium Follow-up Workshop* Faculty survey III: UR office and needs	$ 0
March	GC announces job description for *Director of Engaged Learning*	$ 0
	Symposium Follow-up Workshop	$ 0
April	*Mentoring Teaching Circle* faculty present at the USG Engaged Learning Conference *UR Mentoring Handbook* outline drafted	$ 800
	UR Teaching Circles host university-wide *Dine & Learn*	$ 0
	GC hosts *COPLAC Regional UR Conference*	$ 0
May	*Year One Report* to Council of Deans	$ 0
June	*Year One Report* at *COPLAC-CUR Workshop* GC faculty team conduct workshop at *Annual COPLAC Conference*	$2,800
	URI Committee members present poster at CUR	$1,500
	Cross-disciplinary team of faculty and staff *craft UR learning outcomes and action plan*	$ 150
	GC launches *Center for Engaged Learning*	$ 0
	TOTAL	**$7,250**

Acknowledgements: *CETL, IC-bG, Office of Grants & Sponsored Projects, Council of Deans, Office of the Provost, CUR, COPLAC*

Memorandum

TO: Ken Procter, Dean, College of Arts and Sciences
Sandra Jordan, Provost
Stas Preczewski, Interim President

FROM: Roger Coate, Paul D. Coverdell Professor of Public Policy

DATE: September 13, 2011

SUBJECT: Establishment of the GCSU Student Research Scholar Program

I am please to present to you the formal proposal for the creation of the GCSU Student Research Scholar (SRS) Program. The main purpose of the program is to strengthen GCSU's mission as the premier public liberal arts university in Georgia and to attract and retain the highest caliber young scholars. The SRS program has been designed to enrich the academic experience of our undergraduates through research opportunities in all disciplines from the social and physical sciences and the humanities to information and communication technology, nursing and business. Student Research in this context is interpreted as any scholarly or creative activity ranging from scientific experimentation, to service-learning, to literary criticism, to case-study design, to artistic expression, and so on. By providing access to faculty mentoring relationships and a professional research experience, GCSU's SRS program enables students to creatively explore their interests at a more in-depth level than can be attained in the classroom. The Student Research Scholar program prepares students for graduate-level work and provides opportunities for undergraduates to build a competitive edge in the job market.

The program has been designed over the course of the last year in consultation with former President Leland, Provost Jordan, Vice President for External Relations and University Advancement Amason, and colleagues. It has been modeled on the extremely successful Magellan Scholar Program at the University of South Carolina, where over $1 million has been award to nearly 400 undergraduate Magellan Scholars since spring 2006. I have had the privilege of serving as a faculty mentor in that program.

A Student Research Scholar must: be an undergraduate student; maintain a GPA of 3.3 or greater; and can be from any discipline or major. Other Eligibility requirements and program details are specified in the attached draft GCSU Student Research Scholar Program Guidelines. I must caution that these draft guidelines have been heavily plagiarized from USC's Magellan Scholars Program. That program has been well tested and works well in the undergraduate context. With your approval, I will meet with Julie Morris, Director of the Magellan Program, to make certain that USC approves our using Magellan's model and adapted materials.

Summary details: Each Student Research Scholar may receive up to $3,000 to fund his or her research project, competing for this award with the submission of a research, scholarship, or creative project proposal developed in collaboration with his or her faculty mentor. Selection is based on the project's educational and intellectual merit, the potential impact of the project, and the student's previous academic success. Faculty mentors may receive up to a total of $500 per project in faculty development funds upon the successful completion of the student grant.

For the first four years of the program the Office of the President is requested to approve an allocation of $10,500 per year. The program will be administered in the Office of Academic Affairs and operational details will be the responsibility of that office.

I have attached a formal proposal sign-off sheet and the draft set of guidelines. Please let me know if you have any questions or wish to discuss any aspect of the proposal. Thank you for your kind consideration.

 DRAFT

GCSU Student Research Scholar Program: Liberal Arts Pathways to Success

To strengthen GCSU's mission as the premier public liberal arts university in Georgia, I am please to approve the creation of the GCSU Student Research Scholar (SRS) program. The SRS program has been designed to enrich the academic experience of our undergraduates through research opportunities in all disciplines from the social and physical sciences and the humanities to information and communication technology, nursing and business. Student Research in this context is interpreted as any scholarly or creative activity ranging from scientific experimentation, to service-learning, to literary criticism, to case-study design, to artistic expression, and so on. By providing access to faculty mentoring relationships and a professional research experience, GCSU's SRS program enables students to creatively explore their interests at a more in-depth level than can be attained in the classroom. The Student Research Scholar program provides opportunities for undergraduates to build a competitive edge in the job market.

A Student Research Scholar must: be an undergraduate student; maintain a GPA of 3.3 or greater; and can be from any discipline or major. Other Eligibility requirements and program details are specified in the attached GCSU Student Research Scholar Program Guidelines.

Each Student Research Scholar may receive up to $3,000 to fund his or her research project, competing for this award with the submission of a research, scholarship, or creative project proposal developed in collaboration with his or her faculty mentor. Selection is based on the project's educational and intellectual merit, the potential impact of the project, and the student's previous academic success. Faculty mentors may receive up to a total of $500 per project in faculty development funds upon the successful completion of the student grant.

For the first three years of the program the Office of the President is approving an allocation of $10,500 per year. The program will be administered in the Office of Academic Affairs and operational details will be the responsibility of that office.

Signatures:

_____ _____

Kenneth J. Procter, Dean, College of Arts and Sciences Date

_____ _____

Sandra Jordan, Provost and Vice President for Academic Affairs Date

_____ _____

Stas Preczewski, Interim President Date

GCSU STUDENT RESEARCH SCHOLAR PROGRAM

Liberal Arts Pathways to Success

FALL 2011 GUIDEBOOK
Table of Contents

STUDENT RESEARCH SCHOLAR PROGRAM

Overview

The Student Research Scholar (SRS) program was created by Georgia College & State University (GCSU) to enrich the academic experience of our undergraduates through research opportunities in all disciplines from the social and physical sciences and the humanities to information and communication technology, nursing and business. By providing access to faculty mentoring relationships and a professional research experience, GCSU's SRS program enables students to creatively explore their interests at a more in-depth level than can be attained in the classroom. The Student Research Scholar program provides opportunities for undergraduates to build a competitive edge in the job market.

Each Student Research Scholar may receive up to $3,000 to fund his or her research project, competing for this award with the submission of a research, scholarship, or creative project proposal developed in collaboration with his or her faculty mentor. Selection is based on the project's educational and intellectual merit, the potential impact of the project, and the student's previous academic success.

A Student Research Scholar: maintains a GPA of 3.3 or greater; is from any discipline or major; and dedicates him/herself to probing scholarship about the world in which we live.

Eligibility

Eligible students:

- any discipline
- have completed a minimum of 15 semester hours and no more than 90 semester hours
- undergraduates ONLY
- no previous undergraduate degree
- minimum GPA of 3.3
- good standing with the University (no academic or judicial probation)
- no previous SRS award (awarded only once per student)
- International students are eligible (US citizenship/permanent residence not required)

Mentor requirements:

- Primary mentor must be a GCSU faculty member (includes adjunct faculty)
- Secondary mentor(s) must have appropriate expertise in subject (faculty status and GCSU affiliation not required)

Acceptable projects include:

- mentor-designed (students can work directly on mentor's project; does not have to be separate question/topic)
- student generated projects or questions (this is not a requirement of SRS projects)
- research abroad
- service-learning and community-based-research
- any combination of the above

Funds Available

Applicants may request up to $3,000 with a project period of up to one year. For projects that begin Spring semester, the start date is January 1st. For Summer/Fall projects, the grant start date is May 1st but projects can begin in August.

Cost Share: This program does not require but encourages cost share from the student's academic department and/or college.

STUDENT RESEARCH SCHOLAR PROGRAM

Application process

**Please note:

- Projects can be part of large, on-going research (questions do NOT have to be student generated).
- Research abroad, service-learning, and community-based-research projects are eligible for funding.
- The student must be the primary author of the proposal but is expected (and required) to work with his/her mentor during the proposal writing process.

DEADLINE: The Student Research Scholar program has two deadlines per year. One in mid-October for projects beginning in the Spring semester and one in mid-February for projects beginning in the summer or fall semesters. Please check the website for exact dates.

- ☐ Students must (in addition to the proposal described below):
  - ☐ Attend a 30 minute information session. **This is REQUIRED**. Applications received from students who have not attended may be automatically rejected. Dates and times on the SRS website. Students who cannot attend must contact the office for alternatives.
  - ☐ Complete the on-line applicant information form [www.gcsu.edu/site here].
  - ☐ If the project includes travel abroad (**NOT** international conference travel or travel to and from a study-abroad site), you must complete the standard "advising record" form at the Study Abroad Office. Tell them you are applying for the Student Research Scholar program. See page 5. A student studying abroad may request funding for research purposes, including research-related travel.
  - ☐ If the project includes animals or humans (including interviews, surveys, or review of personal/private information), you must have approval through the appropriate compliance office. This is not required prior to submitting the proposal but is required before you can start the project and receive funding. See page 5 for additional information.

- ☐ Proposal or project description (*NOTE: see Tips & Hints and Sample proposals for additional assistance on Student Research Scholar webpage*):
  - ☐ Centered at top of first page, include your project title (same title entered into the on-line applicant info form). Under title, student's full name, major, mentor's name, and department.
  - ☐ *Page Limitations*: **May not exceed two (2)** single-spaced pages. References may be an additional page; they are not included in the two page limit. NOTE: Additional page(s) allowed for groups, see page 4 for details.
  - ☐ *Format*: Use a readable font (Arial, Helvetica, Times New Roman, etc) and a font size of 11 points or larger with at least 0.5 inch margins (top, bottom, left, and right) for all pages.
  - ☐ A clear, concise description of the proposed project that includes the following sections (use sub-headings!!):
    - ☐ Research question or statement
    - ☐ Project goals and objectives
    - ☐ Project impact or significance
    - ☐ Relationship to previous research/knowledge in the field (literature review or background): keep short and concise
    - ☐ Methodology or project design, include specifically your role in carrying out these tasks.
    - ☐ Project timeline
    - ☐ Anticipated results/Final Products and Dissemination (how you will share results)

- ☐ Student's personal statement, include career goals and how project fits in with goals
- ☐ References Cited (*Not included in page limit; can be an additional page*)

☐ Supporting materials (REQUIRED):
- ☐ Undergraduate transcript including grades and GPA. An "official transcript" is NOT required.
- ☐ An itemized budget and justification of anticipated expenditures (MUST use budget form provided on the MGS webpage); the budget is in addition to the two page proposal. Please see below for additional budget details.

☐ To complete and submit proposal:
- ☐ Create ONE Word or PDF file of proposal and supporting materials. File must be named after the student, as follows: "Last Name_First Initial". For group projects, name the file: "Last name student 1_ Last name student 2."
- ☐ Provide electronic file to faculty mentor.
- ☐ Faculty mentor completes and appends the faculty collaboration form (at: www.gcsu.edu/site here) to the student's completed proposal.
- ☐ Faculty mentor submits proposal. See page 4.

See Student Research Scholar webpage for: • Budget form • Submission checklist
• Applicant information form • Proposal tips and hints • Sample Proposals and Budgets

ONCE AWARDED: Student Research Scholars are required to
1) Present research at the GC Student Research Conference, and
2) Submit a 1–3 page research report

See page 6 for details.

Budget

- Requests of up to $3000
- No more than $1000 may be budgeted for Summer salary only (includes Maymester) (expenses may total $3000 with materials and/or travel).
- No more than $500 may be budgeted for domestic (only) travel to present or perform project results at an academic conference or other appropriate venue.
- You must use the Student Research Scholar budget form on the Student Research Scholar webpage. *NOTE: do not use PDF unless you can save PDFs.*
- Although the committee intends to fund projects as close as possible to the requested amount, it reserves the right to alter the amount funded.
- At the end of the project period or upon student graduation (whichever is first), remaining funds revert back to the Office of Academic Affairs.
- *No cost share or matching funds required, but academic units are encouraged to pr5ovide them.*
- Materials & supplies purchased through this award remain GCSU property.
- Students may receive credit while receiving a stipend/salary.
- Students may receive concurrent funding (Hope Scholarships, academic fellowships, etc.); disclosure required on budget form.
- Allowable Costs
  - Salary and fringe benefits of undergraduate student for summer only (No more than $1000 may be budgeted for salary for summer)

- Student travel essential to conduct the project or present research finding at an academic conference
- Project supplies (computer software is permitted but not computer hardware or peripherals) – *all purchases remain GCSU property*
- Animal maintenance (including the purchase of, treatment, etc.)

➢ Unallowable Costs
- Faculty or graduate student compensation (including salary, benefits, travel) during the project period
- Tuition (of any form including but not limited to study abroad programs)
- Travel to and from or subsistence for study abroad programs
- Salary for undergraduate students not listed on the original grant

➢ **Funds may only be used for the student(s) named as co-PI(s). Mentors found in violation of this may lose eligibility for future funding through the Office of Undergraduate Research.**

WHAT IS FRINGE?? Fringe benefits are various non-wage compensations provided to employees in addition to their normal wages or salaries. This includes things like: FICA (Social Security and Medicare), unemployment, insurance for workplace accidents (worker's comp), etc. This is something that is added to salary of every job that you will ever have but it isn't something you generally are aware of, until you get things like health insurance, vacations, sick leave, and retirement. When you are taking classes, the only cost is worker's comp. This means that fringe rate is calculated differently when you are taking classes and not taking classes. The budget form should calculate this automatically.

FOR MENTORS

1) Complete and save the faculty mentor collaboration form on Student Research Scholar webpage (www.gcsu.edu/site here). Do NOT use PDF unless you can save PDFs.
2) Attach collaboration form to the end of your student's proposal creating ONE Word or PDF document. If using Word, this can be done by cutting and pasting the form to the end of the proposal.
3) Completion and submission of the Proposal / Award Processing (PAP) Form
4) Mentors will be rewarded with $500 in faculty development funds AFTER the successful completion of the project and receipt and acceptance of the final project report by the Office of Academic Affairs.

Group Projects

A small team of 2-4 students may be considered. For group submissions:
- Submit ONE "Applicant information form" with all students listed (Click on the "add students" link below the student 1 data.
- Describe the group project in ONE "Proposal or project description"
- Under the section "Methodology or project design," clearly state duties and role of each student (if doing same, state such); provide justification for size of group
- Additional pages permitted; 1 page per additional student (2 students=3 pgs; 3 students=4 pgs; etc.)
- Budget: up to $3000 may be requested for the entire project (separate budget forms recommended)
- Mentor Collaboration Form: provide a form for each student and include in the mentoring plan a justification for the size of the research team
- FILE name should be Student 1 last name_Student 2 last name_etc

Research Abroad

All travel covered by the Student Research Scholar program is subject to approval and standard terms and conditions of the Study Abroad Office. Should your travel be deemed unsafe for any reason at any time prior to departure, the Student Research Scholar program will follow the recommendations of the Study Abroad Office and has the right to deny and/or revoke funding. It is recommended that students meet with the Office of Undergraduate Research, in addition to the Study Abroad Office, well in advance of submitting a proposal that includes international travel.

If your project involves research abroad (NOT international travel for conferences):

- BEFORE the proposal is submitted: Meet with a Study Abroad advisor to discuss your travel plans and learn "what you need to know" before traveling abroad
  - Complete the Study Abroad "advising record" form (this is the standard form used when you set up an appointment with a Study Abroad advisor)
  - Inform the Study Abroad Office that you are applying for the Student Research Scholar program
  - the Study Abroad Office will send an email to the Office of Academic Affairs indicating your compliance with their policies.
- BEFORE travel, all Student Research Scholars MUST:
  - purchase Overseas Emergency Medical Insurance (contact the Study Abroad Office)
  - comply with all rules, requirements and guidelines of the Study Abroad Office
  - attend a Pre-departure orientation session (through Study Abroad)
  - if you have included Travel expenses in your budget, you MUST have a Travel Authorization (TA) completed through your mentor's department (plan ahead – recommend at least ONE MONTH prior to departure)

Please note: The Student Research Scholar program will not pay for tuition, room, or board associated with a study abroad program.

Projects involving vertebrate animals or human subjects

For research projects involving live, vertebrate animals: Student Research Scholar proposals may be submitted prior to approval by the Animal Care and Use Committee. However, the grant account will not be established and work on the project may not begin until approval has been received. For more information and forms, go to www.gcsu.edu/site here.

For research projects involving human participants: USC is required by the federal government to follow strict guidelines when human subjects are involved in research projects requiring Institutional Review Board (IRB) approval. For the purposes of the undergraduate research application, human subjects research INCLUDES studies that use: (a) data collected through interventions, interactions, or observations with human participants (e.g., surveys, interviews, testing, or observational procedures); and/or (b) existing data sets containing any personal information (e.g., medical records, educational records, voting records). To receive funding for projects involving human participants, each student must follow the guidelines described at www.gcsu.edu/site here l. Please contact the **Office of Research Compliance** (www.gcsu.edu/site here; phone number here) with all questions.
Please note that a student may APPLY for funding prior to submitting the application for human subjects review, but the grant will not be established (no money will be released) until approval is received. It is recommended that the approval process be started immediately after submitting the proposal as the process can occasionally be lengthy. Please be aware that human subjects review and approval must be obtained prior to initiating your research; the Institutional Review Board cannot approve studies retroactively. **There are no exceptions**.

Review Process

Applications that are complete and responsive to this announcement will be evaluated for merit by the Review committee. The Review committee will provide a prioritized list of recommendations for funding to the Office of Academic Affairs, based on the quality of the proposals per the review criteria. Awards will be made based on review committee recommendations and available funds.

The following criteria will be used to assess proposals, presented in order of importance (a copy of the review rubric can be found on the Student Research Scholar webpage):

- Overall merit
- Student's clarity of explanation
  - Research topic or question
  - Project plan or how the question is to be answered
  - Significance or impact of project
  - Writing style
- Overall strength of collaboration form and mentor's role in project
- Student's readiness for project and/or the plan for gaining needed skills
- Student's anticipated plan for sharing the project results (examples: presentation, publication, exhibit, performance, etc)
- Timeline

Applicants and mentors will be notified via e-mail of award decisions. See webpage for announcement date.

Award Administration

Students are **required** to:

1) Present their research at the annual GC Student Research Conference (www.gcsu.edu/site here) **and**
2) Submit a 1–3 page research report to the Office of Student Affairs (guidelines: www.gcsu.edu/site here). The research report is due 1 month after completion of the project or prior to graduation.

- Expenditures – Established University procedures must be followed in expending project funds. Special attention should be paid to policies and procedures relating to Purchasing, Travel, and Personnel. Compensation (of any form) for faculty and graduate students is not allowed. **All grant overages are the mentor's responsibility.**
- Compliance Issues - If the project includes the use of humans as research subjects (including surveys) or vertebrate animals, the faculty member is responsible for ensuring IRB or IACUC approval (see page 5). The faculty member is also responsible for compliance with GCSU, state and federal requirements relating to the use of radioisotopes and biohazardous materials.
- Publications and Presentations - Any publications or presentations produced as a result of this award must contain an acknowledgment of GCSU's support such as: "This work is partially supported by a grant from the Georgia College & State University Student Research Scholar program."

* GCSU's SRS program has been modeled after the Magellan Scholars Program at the University of South Carolina (USC) and program materials have been adapted directly from USC's program with the expressed approval of the Office of Undergraduate Research at the University of South Carolina.

University of South Carolina

South Carolina's Flagship University

UNDERGRADUATE RESEARCH

OFFICE OF RESEARCH | UNDERGRADUATE RESEARCH HOME

- Students
- Faculty
- Discovery Day
- Discover Program
- Magellan Ambassadors
- Research Journal
- Graduate with Distinction
- Funding programs
- Contact Us

Office of Undergraduate Research
Legare 126
Phone: 803-777-1141
Email: our@sc.edu

SEARCH

USC THIS SITE

MAGELLAN SCHOLAR

Application Form

Application Deadline: * Select One Select One

Student 1 Information

Student Name: * first name / last name

VIP ID: *

What's my VIP ID?

Email: *

Local Phone: * ie. xxx-xxx-xxxx

Hometown, State: *

Name of High School from which you graduated:

City and State of High School (if different than hometown):

If awarded, may we post/share your name and the academic and project information provided below for advertising/marketing purposes? Yes No

May we share your hometown and high school information with the media, if you are funded? Yes No

Campus: * Select One

Major: * Select One

Major 2 / Minor: Select One

Academic Year: * 1 2 3 4+

SC Honors: Yes No Capstone: Yes No

TRIO/Opportunity Scholar: Yes No

Residence learning community: * Not Applicable

Have you received any funding for your research [1]: * Yes No

From where?

[* add students (4 total)] [* remove last student]

[1] Does not include salary support from your mentor or work-study. This is for informational purposes only and will not affect the funding decision. Ex. SCHC research fellowship, Howard Hughes, etc. NOTE: You can NOT receive any other funding while you have a Howard Hughes and you can NOT get paid twice from two different sources. If you have multiple awards, arrangements for disbursement must be made ahead of time (for example, you could get paid through an URF and get materials/supplies and travel with the Magellan).

Mentor Information

Faculty Mentor 1 Name: * first name / last name

Campus: * Select One

College: * Select One

Department: * Select One

Email: *

Phone: * ie. xxx-xxx-xxxx

Faculty Mentor 2 Name: first name / last name

Campus: Select One

College: Select One

Department: Select One

Email:

Phone: ie. xxx-xxx-xxxx

Project Information

Project Title *

Proposed project start/end dates: *

Total budget requested: *

Will you be using vertebrate animals in any part of this research project? * Yes No

Will you be using human subjects in any part of this research project? * Yes No

Will you be traveling outside of the US to conduct or participate in any part of this project? * Yes No

Travel Country:
(if multiple countries, separate with hypen)

Travel Dates:

Is this a resubmission? * Yes No

WARNING!
Your proposal and budget must be submitted through USCeRA by your faculty mentor. It is NOT complete until your mentor receives a proposal number and it has been approved by the chair and dean!!!! Click here to learn more about submitting through USCeRA.

****TERMS AND CONDITIONS:**
By submitting this document, the student and faculty mentor assume responsibility for the project activities outlined in the proposal and agree to the following terms and conditions. Both parties have read and understand the current guidelines regarding expenditures related to this proposed work. The student agrees to participate in Discovery Day and submit a paper for the undergraduate research journal. All projects are subject to the USC Intellectual Property Policy: http://ip.research.sc.edu /policy_new.shtml.

Submit Application

Columbia, SC 29208 • 803-777-1141 • our@sc.edu

Do not use this form unless you can alter and save PDF documents.
For instructions on completing this form: http://www.sc.edu/our/doc/BUDGETInstructionsforPDF.pdf

Magellan Scholar BUDGET FORM

Student's Name: _____

Student salary	Hours Enter the estimated number of hours student will work	Rate Enter the hourly wage	Subtotal
Taking classes			$0.00
Not taking classes			$0.00
Fringe: Student salary * student fringe rate[1]			
Taking classes	$0.00	0.20%	$0.00
Not taking classes	$0.00	8.15%	$0.00
Materials/Supplies		Enter sub-total from below:	
Travel		Enter sub-total from below:	

TOTAL:	**$0.00**
Amount requested for MGS award:	

Budget Justification

Student Salary: Indicate estimated number of student work hours per week during academic year and summer and hourly rate.

Materials/Supplies: Indicate items, quantity, and estimated price. Be sure to include an extra 7% for taxes on all purchases.

Travel: Indicate location, purpose of travel, estimate itemized costs (transportation, lodging, registration, etc).

Magellan Scholar BUDGET FORM
INSTRUCTIONS for Word document

NOTE: If your computer does not support the use of the Budget form document, please email the Office of Undergraduate Research (our@sc.edu) and request a no-frills Word budget form.

1) **Save form to your computer.**
2) Open the saved form from your harddrive.
3) Enter student's name. For group projects, please complete a budget form for EACH student – this may require dividing the materials/supplies between the students.
4) Double click on table (anywhere within table).
5) SALARY BOX
    a. Under "Hours" enter the ESTIMATED number of hours you expect to work while taking classes and the ESTIMATED number of hours you expect to work while NOT taking classes (if you are not taking any classes during the summer, this is where you would enter these numbers).
    b. Under "Rate," enter the HOURLY salary you will be paid. Enter the number as X.XX. NOTE: This MUST be decided by or approved by your mentor. If there is a standard departmental rate, this is the rate that should be used. Most students get paid between $7.50-$10 per hour.
    c. The subtotal should generate automatically. If not, for the "Taking Classes" row, multiply the hours by the rate and enter this number under subtotal. Repeat for "Not taking classes."
6) FRINGE RATE: This box should automatically calculate the fringe based on the salaries calculated under #5 above. If it doesn't, follow the directions below

    What is fringe? [Fringe benefits are various non-wage compensations provided to employees in addition to their normal wages or salaries. This includes things like: FICA (Social Security and Medicare), unemployment, insurance for workplace accidents (worker's comp), etc. This is something that is added on to every job that you will ever have but it isn't something you generally are aware of, until you get things like health insurance, vacations, sick leave, and retirement. When you are taking classes, the only cost is worker's comp.] The fringe rate is calculated differently when you are taking classes and not taking classes.

    a. For the "Taking classes" row:
        i. In the first box after "taking classes," enter the subtotal from the Salary box – taking classes. This should be entered as X.XX.
        ii. In the second box after "taking classes," enter 0.005.
        iii. Multiply the "taking classes" salary subtotal times 0.005.
        iv. Enter this amount in the third box across from "Taking classes" (in the "Subtotal" column) as X.XX.
    b. For the "Not taking classes" row:
        i. In the first box, enter the subtotal from the Salary box – "not taking classes." This should be entered as X.XX.
        ii. In the second box after "not taking classes," enter 0.084.
        iii. Multiply the "not taking classes" salary subtotal times 0.084.
        iv. Enter this amount in the third box across from "Not taking classes" (in the "Subtotal" column) as X.XX.
7) MATERIALS/SUPPLIES: Enter the estimated total of materials and supplies you will need for your project under the subtotal column as X.XX. List each item in the BUDGET JUSTIFICATION section with estimated cost. Please review the "approved expenses" list in Section V of the Guidebook.

8) TRAVEL: Enter the estimated total for travel expenses under the subtotal column as X.XX. Itemize the travel expenses in the BUDGET JUSTIFICATION section.

9) TOTAL: This box should autocalculate. If not, add together each of the subtotals for: taking classes salary, not taking classes salary, taking classes fringe, not taking classes fringe, materials/supplies, and travel.

   What if the TOTAL is greater than $3000? The maximum grant is $3000. If your total is over $3000 by a few hundred or more, then you need to explain in the BUDGET JUSTIFICATION section where you will get the rest of the money or who will cover the additional expenses (see the example below). Be sure to complete #10. If your total is over by just a few dollars/cents, also complete #10 but you do not need to explain the difference.

10) AMOUNT REQUESTED: In this box, enter the total you are requesting. This could be the same amount as in the TOTAL box (if less than $3000) OR $3000. Do NOT put more than $3000 and do NOT put a number higher than what is in the TOTAL box. If this number differs from the TOTAL box (see #9, WHAT IF), you need to explain who will cover the difference in the BUDGET JUSTIFICATION section.

11) To close the spreadsheet window: Make sure the cell labeled as "Student Salary" is in the upper-left corner of the spreadsheet window. If it is not, move the blue margin sliders until it is showing properly. Move the cursor off the spreadsheet and click once.

12) BUDGET JUSTIFICATION:

    a. Student salary: at minimum, this section should indicate how many hours per week and how many weeks the student will be working and at what hourly rate – both while taking classes and not taking classes. Additional information may be included if clarifications are needed.

    b. Materials/Supplies: this section should list the items needed to be purchased, quantity, and the estimated cost. Be sure to include an additional 7% for tax purposes.

    c. Travel:

        i. Domestic: estimates should include transportation costs (standard rates for personal vehicles or ticket estimates from recognized travel sites), lodging, food (standard rates for in-state and out-of-state), registration costs, local transportation, etc.

        ii. Foreign: include flight estimates from recognized travel sites, lodging estimates, food (standardized rates are available based on country), registration costs, local transportation, etc.

NOTE ON BUDGETS: It is understood that budgets are estimates and that changes can occur (and are expected to occur) during research. Research mentors have the authority to approve/disapprove changes within the Magellan Scholar grant without contacting the program administrator as long as the change is in keeping with the framework of the Magellan approved project and does not exceed the funds awarded.

See example budget on next page.

Magellan Scholar BUDGET FORM

Student's Name: Jane Doe

Student salary	Hours	Rate	Subtotal
Taking classes	90	7.5	$675.00
Not taking classes	100	7.5	$750.00

Fringe: Student salary * student fringe rate[1]			
Taking classes	$675.00	0.20%	$1.35
Not taking classes	$750.00	8.15%	$61.13

Materials/Supplies	$655.00

Travel	$1,388.00

TOTAL	$3,530.48

Amount requested for MGS award:	$3000*

Budget Justification

Student Salary: Indicate timeframe of student work
While taking classes: 10 hours per week for 9 weeks at $7.50 per hour
Over the summer: 20 hours per week for 5 weeks at $7.50 per hour

Materials/Supplies: Indicate quantity and price
Special gadget (2 @ $70 each): $140
Gizmo (4 @ $100 each): $400
Printing costs for marketing of such-and-such (flyers, programs, posters): $65
Discovery Day poster printing: $50

TOTAL = $655 (~$500 in expenses will be covered through the Magellan Scholar award; additional costs will covered by mentor)

Travel: Indicate location, purpose of travel, estimate costs.
21st annual conference of the specialists association in San Francisco, CA
- Airfare (roundtrip): $600 (from Expedia, Orbitz, Delta, etc)
- Lodging: $150/night (incl tax) for 4 nights @ conference hotel = $600
- Meals: $32/day for 4 days = $128
- Taxis (to and from airport) = $60

TOTAL: $1388 (~$1000 will be used toward travel from Magellan Scholar program; student will seek additional funds from department or will cover expenses out-of-pocket)

*NOTE: Expenses beyond the $3000 award will be covered by mentor (for Material/supplies) or by student (travel)

GCSU Student Research Scholar Mentor Collaboration

Student's name: _____ How long have you known student? _____

Section I: Please comment briefly on the strengths and weaknesses of the applicant.
Please include such factors as intellectual ability, research and writing ability, analytical skills, initiative and maturity, and level of independence (novice through advanced).

Section II: Briefly state your role in the project.
You may wish to include the frequency of meetings or interactions, additional financial or logistic support, etc. If your student is lacking particular skills necessary for project, include details on how those skills will be developed.

Based on your knowledge of the applicant's abilities and personal characteristics, please rate this candidate for a Student Research Scholar award. Please mark the appropriate response.

Very Highly Recommend _____ Highly Recommend _____
Recommend With Reservations _____ Do Not Recommend _____

Name of Faculty Mentor: _____

GCSU Student Research Scholar and Research Abroad

Hints and Tips for Developing a Strong Proposal

YES, you can be a Student Research Scholar (SRS) doing your own research while studying (or interning, volunteering, etc.) abroad and some of the funds can be used to off-set your travel expenses. However, you must have a well thought-out and planned research project (with details). You need to convince the reviewers that we are not abandoning you in a foreign country without guidance or resources and that we are not funding you to study, work, volunteer, sight-see, or party abroad.

People to Visit:

- **Office of Undergraduate Research Staff**
  To discuss your research interests and begin to identify a faculty mentor and project
  To help guide you through the SRS proposal process
- **Study Abroad Office Staff -**
  To discuss potential locations for your research and obtain pre-departure information
- **Your Faculty Research Mentor**
  To further define your project and develop your research question and methodology
- **Your Academic Advisor**
  To explore how credits abroad can transfer and if you can obtain credit for your research

Things to Ask Yourself (& include in your proposal):

- **Why are you applying for the SRS grant?**
  If you are doing this just to get money to off-set your travel expenses, STOP now. You need to have a well thought-out and designed project before you can apply and you need to be committed to doing the work involved in a research project. You will also need time while you are abroad, support/help from people while you are researching, and a plan for the work you will do before you leave, while you are there, and once you return. If this sounds like something you want to do, excellent!

- **Why do you need to conduct your research in this specific country?**
  Your proposal will be stronger if you can show the necessity of your travel to a specific location. If there is an artifact, aspect of culture, or person in your country of choice that is specifically interesting, explain why you must travel for your research as opposed to staying in the U.S.

- **Will you have sufficient time outside of your classes or other commitments to conduct this research without over-committing?**
  Talk with the Study Abroad Staff to discuss the academic commitments of your program. If you are traveling with another university, discuss these same questions with the faculty member directing your program from that university.

- **Do you have contacts/mentors in your country of study? If so, who are they? Who will you need to talk with, interview, etc? If you don't know who yet, how will you find them?**
  If you have names, list them. Start making contacts now – having this in your proposal shows your commitment to the project and emphasizes that you have thought through the process and needs of the project. If you can, include emails or letters of agreement from contacts.

- **Have you traveled to this country before?**
  Define what you already know about the country and your topic of study, including what makes you interested in returning to the country for research.

- **Do you speak the language necessary to conduct your research? How well? Well enough to conduct the interviews, discussions, etc? If not, how will you handle this?**
  If you will be taking language classes abroad, include this. If you need to hire interpreters or translators, how will they be paid (they cannot be paid directly from GCSU SRS grant funds).
  If English is commonly used in your destination country and this isn't immediately obvious, state this in the proposal so that the reviewers know that language will not be a barrier.

- **Are you traveling on your own or will your faculty mentor be there?**
  It is important to discuss your relationship and have contact with your GCSU faculty mentor. If they will not be traveling with you, define in your proposal your plans to keep in contact with them. Also include how they will be able to help you through any concerns, questions, or problems with your research that may arise while you are abroad.

- **What are your travel logistics**
  Where will you be staying, will you need to travel within the country, etc. These details emphasize that you have thought through the process. Don't dwell on these details, but do mention them.

- **Emphasize the research**
  Remember that this proposal is for your RESEARCH not the classes, volunteering, internship, etc. Everything in your proposal needs to focus on the research and show how you plan to answer your research question - NOT on the details of the other activities. However, if there are aspects of the activities that will enhance or support your research (such as contacts, access to participants, language immersion, etc.) then absolutely include this information.

- **Your project plan: before, during, and after travel**
  It is extremely unlikely that a good project could be started AND finished while abroad. Most projects require some background/pre-trip work and post-trip wrap-up, reflection, synthesis, and/or analysis. Be sure to include the time and work that you will do before and after your trip.

Magellan Scholar Submission Checklist

Prior to submission, it is strongly recommended that you review your proposal to ensure it complies with the guidelines, in the format specified. This checklist is not intended to be an all inclusive repetition of the required proposal contents and associated proposal preparation guidelines. It is, however, meant to highlight certain critical items so they will not be overlooked when the proposal is prepared.

- ☐ Attend ONE application workshop (Dates, times, and locations on webpage)
- ☐ Complete the on-line applicant information form (http://www.sc.edu/our/magellanapp.php)
- ☐ Register in USCeRA (see guidelines for instructions: https://sam.research.sc.edu/uscera/)
- ☐ If any part of your research takes place outside the US (NOT conference travel) – complete the appropriate steps for "Research Abroad" in the Magellan Scholar guidebook.

Proposal – general:

- ☐ At top center of first page of proposal: title of your project, your name and major, and your mentor's name and department (NO coversheet)
- ☐ Follow the font and margin requirements and two page limit (not including: references, budget, transcripts, mentor collaboration form) NOTE for group projects: Max is one extra page per student (2 students = 3 pages; 3 students = 4 pages)

Proposal – sections:

- ☐ Research question or statement
- ☐ Project goals and objectives
- ☐ Project impact or significance
- ☐ Relationship to previous research/knowledge in the field
- ☐ Methodology or project design
- ☐ Project timeline
- ☐ Anticipated results/Final Products and Dissemination (sharing results)
- ☐ Personal statement
- ☐ References Cited: Not included in page limit

Supporting material:

- ☐ Itemized budget and justification (use Magellan budget form)
- ☐ Transcript (copy and paste to end of proposal)

Final proposal document:

- ☐ Compile proposal, budget, and transcripts into ONE Word or PDF file
- ☐ Name file as follows "your last name_first initial"; for group projects: "student 1 last name_student 2 last name"
- ☐ Electronic file given to mentor for submission through USCeRA
- ☐ Remind mentor to attach "faculty collaboration form" to end of your proposal file

Other:

- ☐ Project includes animals or humans? Follow guidelines in the Guidebook.

Students
Faculty
Discovery Day
Discover Program
Magellan Ambassadors
Research Journal
Graduate with Distinction
Funding programs
Contact Us

Office of Undergraduate Research
Legare 126
Phone: 803-777-1141
Email: our@sc.edu

SEARCH

USC THIS SITE

MAGELLAN SCHOLAR

Discovery for every discipline

MAGELLAN SCHOLAR AWARDS HIT $1 MILLION MILESTONE. LEARN MORE...

The Magellan Scholar program was created to enrich the academic experience of USC's undergraduates through research opportunities in all disciplines from science, technology, and medicine, to theatre, music, and art. By providing access to faculty mentoring relationships and a professional research experience, this program enables students to creatively explore their interests at a more in-depth level than can be attained in the classroom. The Magellan Scholar program provides opportunities for undergraduates to build a competitive edge in the job market.

Important Dates:

For projects beginning in Spring
Submission deadline: October 18th
USC AIKEN deadline: October 13th
Announcement date: December 5th

For projects beginning in Summer/Fall
Submission deadline: February 16th
USC AIKEN deadline: February 13th
Announcement date: April 3rd

Application workshops REQUIRED:

- The required session lasts 30-40 min followed by an optional 20 min "More tips & hints"
- NO registration necessary
- Alternatives available for non-Columbia faculty and students, please contact our@sc.edu or 803-777-1141
- If you cannot attend any of the scheduled sessions, please contact the OUR.

USC Columbia: (NOTE location changes)
Fri, Jan 20, Noon Russell House Room 315
Tues, Jan 24, 4pm Russell House Room 303
Wed, Jan 25, 4pm Russell House Room 303
Mon, Jan 30, 5pm Russell House Room 315
Thurs, Feb 2, 4pm Russell House Room 303
Mon, Feb 6, 4pm Russell House Room 303

USC Aiken:
Thurs, Jan 19, 4:30pm
Business and Education (B&E) Building Room 140

USC Upstate:
By request - Contact Dr. Sebastian van Delden (svandelden@uscupstate.edu; 864-503-5292)

For submission (Students):

- Application guidebook (PDF/Word)
- Applicant information form
- USCeRA Registration
- Budget form (PDF/Word)
- Budget instructions (for PDF/for Word)

For submission (Faculty):

- Application guidebook (PDF/Word) (same as student's guidebook)
- Mentor collaboration form (PDF/Word)
- USCeRA
- USCeRA submission tip sheet

- Submission checklist
- Proposal tips and hints
- Research abroad?
- Sample proposals
- Review rubric REVISED 9/20/10

Other:

- Grant management FAQ
- Scholar Report guidelines
- Listing of Magellan Scholar projects
- Videoclip of program unveiling

Columbia, SC 29208 • 803-777-1141 • our@sc.edu

GCSU Student Research Scholar Mentor Collaboration

Student's name: _____ How long have you known student? _____

Section I: Please comment briefly on the strengths and weaknesses of the applicant.
Please include such factors as intellectual ability, research and writing ability, analytical skills, initiative and maturity, and level of independence (novice through advanced).

Section II: Briefly state your role in the project.
You may wish to include the frequency of meetings or interactions, additional financial or logistic support, etc. If your student is lacking particular skills necessary for project, include details on how those skills will be developed.

Based on your knowledge of the applicant's abilities and personal characteristics, please rate this candidate for a Student Research Scholar award. Please mark the appropriate response.

Very Highly Recommend _____ Highly Recommend _____
Recommend With Reservations _____ Do Not Recommend _____

Name of Faculty Mentor: _____

PROPOSAL TIPS & HINTS

This document is divided into four sections: I-Proposal Overview, II-Goals vs Objectives vs Tasks, III-Clarifying the Project Plan, IV- examples of timelines and V-Writing Effectively.

SECTION I: PROPOSAL OVERVIEW

Important note about writing a proposal: Proposals are informative and persuasive writing because they attempt to educate the reader and to convince that reader to do something (give you money). The goal of the writer is not only to persuade the reader to do what is being requested, but also to make the reader believe that the solution (how you are going to answer your question) is practical and appropriate. In persuasive proposal writing, the case is built by the demonstration of logic and reason in the approach taken in the solution. The effectiveness of your proposal will depend on your ability to explain the nature, context and scope of your project.

As you are writing, ask yourself:
1) Is this information needed to understand how I will answer my question? If no – take it out!
2) Will this plan ACTUALLY answer my question? If no – rethink your plan!

Most proposals will have all of the following sections; although, a rare few may lack section 2. It is recommended but not required that you follow the listed order, sometimes a proposal flows better with sections in a different order (such as the background section first) – this is fine, just be sure that there is a logical flow to your writing. It is also recommended (read as required) that proposals use headers for each section.

> REMEMBER: Reviewers have to read a lot of proposals – not just yours. They expect information in particular areas and to follow a set format – make sure information is where they expect to see it. *Make it easy for reviewers to find and understand the information they need.*
>
> Example: Reviewers will expect to see Discovery Day presentation in the "Anticipated results/Final Products and Dissemination" section. Be sure to put it there. If you put it in Timeline or Project Design – it may get missed and you will lose points.

Your proposal should consist of the following:

1. Research question or statement – Very clearly state what you will be studying in 1-2 sentences. The information on why, how, importance, etc will be in later sections. Be sure that this is understandable to someone who doesn't know much about your field of study. If needed, define terms. To test your explanation – give this to a friend not in your major. If he/she doesn't understand, try again!

2. Project Goal and Objectives - Goals and Objectives are often confused with each other. They both describe things that a person may want to achieve or attain but in relative terms may mean different things. Both are desired outcomes of work done by a person but what sets them apart is the time frame, attributes they're set for and the effect they inflict. Both the terms imply the target that one's efforts is desired to accomplish. (*Review Section II of this document for additional assistance with this section.*) Example:
   - Goal: Our after-school program will help children read better.
   - Objective: Our after-school remedial education program will assist 50 children in improving their reading scores by one grade level as demonstrated on standardized reading tests administered after participating in the program for six months.

NOTE: #1 and 2 are very important. They don't need to be long – one short paragraph should be enough – but they are critical. The rest of your proposal supports these statements and explains why you want to explore this question, how you will do it, and what it means to you.

3. Project impact, significance, or purpose - Keep the statement of significance brief (1-2 sentences) - be succinct! Details should be in section 4. Some things to consider for this section: what can your research be used for in the big picture; how is your research innovative, unique or different; how will your project increase knowledge in the field (is there a void that your project will fill); what is the bigger question that your question might help answer or how can it be used by others; is there a direct impact to the community, environment, or USC. In thinking about the significance, try to take the position of an educated newspaper reader. If she or he were to see an article about your project in the paper, how would you explain the importance or purpose of your project?

4. Background/Knowledge in the field/Literature review - Be succinct. This section should provide the information that the reviewer needs to know to understand what and why you are doing this project. Clearly support your research statement with documentation and references, and include a review of the literature that supports the need for your research or creative endeavor. Include a discussion of the present understanding and/or state of knowledge concerning the question/problem or a discussion of the context of the scholarly or creative work. This section presents and summarizes the problem you intend to solve and your solution to that problem. **For most proposals, this section will have references – please see #8 below.

   If your project is a portion of a larger project, the background should describe the research in general, on a large scale, but the Project Description should be all about what you are going to do. This section should also include how your project benefits or impacts the project as a whole and what knowledge is gained from your piece of the project.

5. Project Design or Methods - Design and describe a work plan consistent with your academic discipline. This may include scientific research in the physical or biological sciences, use of population samples, experimental and control groups, or other methods of data gathering and statistical analysis. The work plan may include archival research, translating, ethnographic fieldwork, solitary thinking, or other forms of analysis and synthesis of ideas and concepts in the arts and humanities. This section of the proposal should explain the details of the proposed plan. How will you go about exploring your research question? What will be your methods? If you are not the only person working on the project, who else will be involved? You can also include a brief overview of what you have already done on the project and/or what you will be doing after the project period in over, if your project is of longer duration.

   Be specific on what you will be doing. The reasoning behind the Magellan program is to make sure that you have a meaningful experience. If the reviewer can't tell what part of a project you will be doing, he/she can't evaluate your experience.

   Review Section III of this document for additional assistance with this section.

6. Project timeline – Provide an overview of the timing for specific steps of your project. This does not need to be a day to day list but depending on the length of your project, it may give an overview biweekly or monthly. Be sure to include time to review/synthesize your data or to reflect on the experience and time to write the final report. This section can include a pre and post grant period, if you have already started your project and/or plan to continue working on this after the grant period ends. *Review Section IV of this document for additional assistance with this section.*

7. Anticipated results/Final Products and Dissemination - Describe possible forms of the final product, e.g., publishable manuscript, conference paper, invention, software, exhibit, performance, etc. Be specific about how you intend to share your results or project with others including names of possible conferences or journals. This section may also include an interpretation and explanation of results as related to your question; a discussion on or suggestions for further work that may help address the problem you are trying to solve; an analysis of the expected impact of the scholarly or creative work on the audience; or a discussion on any problems that could hinder your creative endeavor. Be sure to include your Discovery Day presentation.

8. Personal statement – This section is read carefully by the reviewers and does impact their decision. Things to include: why you want to do this project, what got you interested in it, your career goals, and how this award would further those goals. While it is important, please remember that it shouldn't overpower the rest of the proposal. One-quarter to one-half of the page should be sufficient.

9. **Bibliography/References/Works cited – Use the standard convention of your discipline including the author, title of article, journal title, volume, pages, and date. References are not included in (are in addition to) the 2 page max.

Budget Form- Your list of budget items and the calculations you have done to arrive at a dollar figure for each item must be summarized on the Budget form. This is a separate page from your proposal – use the form from the webpage. You should keep these calculations to remind yourself how the numbers were developed.

Budget Narrative - A narrative portion of the budget is used to explain the line items in the budget. Projects that include travel should be specific about benefit/reasons and locations and should include details on lodging, food, registration costs, transportation, etc. See the sample proposals for examples of budgets.

SECTION II: GOALS vs OBJECTIVES vs TASKS

The words Goal and Objective are often confused with each other. They both describe things that a person may want to achieve or attain but in relative terms may mean different things. Both are desired outcomes of work done by a person but what sets them apart is the time frame, attributes they're set for and the effect they inflict. Both the terms imply the target that one's efforts is desired to accomplish.

Goals are generically for an achievement or accomplishment for which certain efforts are put. Goals are the vision of the project

Objectives are specifically for targets within the general goal. Objectives are time related to achieve a certain task. Objectives are measurable activities to achieve goals; the end points envisioned for the proposed project. These objectives might be, for example, development of a specified measurement capability that meets a prescribed accuracy, data rate, instrument packaging characteristics (size, weight, etc.), and other possible requirements. Analogies would be the goal line in a football game, and the mountain peak a climber plans to ascend. Objectives are achieved, or they are not. They are not performed or carried out. They do not yield results or data.

Tasks in a work (or research) plan are steps taken to achieve the stated objectives for the project. They are, for example, a sequence of experiments, analyses, field trials, etc., that together lead to attainment of the project "objectives." In the football game analogy, the tasks are a sequence of plays that culminate in getting the ball over the goal ("objective") line. To the mountain climber, the tasks are a series of actions (hiking up trails, crossing streams, climbing rocks, etc.) that bring the climber to the targeted mountain peak.

	Goal	Objective
Meaning	The purpose toward which an endeavor is directed	Something that one's efforts or actions are intended to attain or accomplish; purpose; target
Time frame	Long term	Short term
Measure	Cannot be measured	Can be measured
Example	I want to achieve success in the field of genetic research and do what no one has ever done	I want to give you the thesis on genetic research within this month
Type	Intangible	Tangible
Action	Generic action	Specific action
Plan	Broad plan	Narrow plan

SECTION III: CLARIFYING THE PROJECT PLAN

The review committee has the difficult task of deciding which projects to fund. Their decisions are based solely on the information provided in your application so it is very important that all the information they need be clearly available and obvious.

The KEYS TO A SUCCESSFUL PROPOSAL:

1. Think carefully and logically through your project before writing AND
2. Articulate this plan in writing

This leads directly to two problems many students run into when writing a project description, particularly when they have come up with the project themselves. The first is that it's all there in your head but it can be difficult to put it down on paper (both clearly and logically). The second is that you may not know all the steps that you need to accomplish in order to answer your question. Both can be overcome by creating an outline of your project plan.

Your outline should have your question written at the top so that you can continuously refer back to it and to make sure that each step of your project will eventually lead you to the answer and doesn't veer off to something that may not be relevant. List each step that you will need to do to answer your question, even if it's as simple as "go to the library." Include why that step is important or what information you might obtain. Think critically about how you will accomplish each step – ask yourself questions about the step: which library, is it a special library, will I need to get permission to use these resources, who do I talk to and can I start getting that permission now? Share this document with your mentor, so that together you can identify steps that may have been missed.

Questions to ask yourself or address in your plan:

Do you really have a plan to answer your question?

- Take a step back and look critically at your question and the plan you are developing. Is what you are planning to do answer (or at least begin to answer) your question? If not, you may need to rethink your plan OR your question.

Do you have the skills or expertise needed for each step?

- If you already have experience in particularly difficult or unusual steps (like animal studies, special library resources, language skills, etc) be sure to emphasize this
- Is there something you will need to learn? Who will teach you or who will do it for you?
- Example: Making a documentary and don't know how to edit – who are you going to have do this or who will teach you?

Are you doing a project that involves more than one discipline?

- Would you and the project benefit from access to an expert or at least a contact in each discipline? Who will this be? Names are important, they show you are committed to a successful project.
- Example: Filming a documentary on the environment and your mentor is from Marine Science: consider involving someome with experience in Media Arts - a second mentor or someone with filming experience. Get them on-board before finishing your proposal because he/she may think of something that would be important to include and having a name in your proposal shows that you recognize the need for additional assistance.

Do you have the necessary contacts to complete your project?

- Who will you need to talk with, interview, etc?
- If you have names, list them. Start making contacts now – having this in your proposal shows your commitment to the project and emphasizes that you have thought through the process and needs of the project.

Does your project include people (interviewing, surveys, focus groups, etc.), information on or about people (medical records, governmental records, etc.), or vertebrate animals?

NOTE you must go through the appropriate approval process, see the Magellan Scholar guidebook for details. Be sure to include a sentence in your proposal (in the project design or timeline) indicating that you will be seeking or already have IRB or IACUC approval (see guidebook).

- Why are you using a certain population of people or animals?
- How will you get access to this population?
- Why are you using that number of subjects? (particularly when doing a retrospective study, there are statistical methods that indicate how many subjects you should evaluate, be sure to include this information)
- What type of information are you trying to get? You may wish to include examples of questions, a description of the data from the records, etc.
- Who will help you with: survey/question design, interviewing techniques, animal care or surgery, etc.

Are you doing a comparative study (will you be comparing one group to another, one place to another, etc)?

- How will you evaluate both/all groups, places, items, etc.
- What are you evaluating, comparing, or contrasting?
- Why are you comparing these particular two or more groups, places, etc. ("because it is convenient" or "because I want to go there" are generally not convincing reasons)
- Do you or your mentor have the expertise in this type of project or in the aspects that you will be comparing/contrasting?

Research while abroad? See the "Research abroad?" document on the Magellan Scholar webpage

Include as much of this as possible (and as appropriate) within the proposal to show that you have carefully and conscientiously thought through your project plan. This will demonstrate to the review committee that you have a reasonable chance of answering your research question or completing your project AND a plan in order to do it.

SECTION IV: EXAMPLES OF TIMELINES

It is MUCH easier to read a bulleted list or table than a paragraph of text. It is STRONGLY recommended that you use one of the following timeline formats for your proposal. The timeline should be a very brief summary of your project design section. If you find yourself writing full sentences in the timeline, you probably need to move this info to the design section.

Project Timeline:

April – June	continue review of current literature, intense background research
July	excavation of site at Habitation Crève Coeur
August – November	analysis of statistical data from the site
October – March	writing and revising of report
January - May	prep for conferences and publications

Project Timeline:

	Project Months													
Task description	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May
continue review of current literature, intense background research	X	X	X											
excavation of site at Habitation Crève Coeur				X										
analysis of statistical data from the site					X	X	X	X						
writing and revising of report							X	X	X	X	X	X		
Prep for conferences and publications										X	X	X	X	X

Magellan Scholar Proposal Review Rubric

Revision date 09/201

Criteria Weight		EXEMPLARY (x4)	GOOD (x3)	ADEQUATE (x2)	NEEDS SIGNIFICANT IMPROVEMENT (x1)	MISSING
20	Overall Merit	Excellent overall topic, project plan, and design (80 pts)	Good but some concerns with topic, plan, or design (60 pts)	Adequate but weak project plan or design (recommend revise & resubmit) (40 pts)	Project plan or design is vague or has significant flaws (recommend revise & resubmit) (20 pts)	Not an appropriate topic, project, or plan (0 pts)
36	Student's clarity of explanation					
8	Research topic or question	Clearly articulated topic/question with logical, supportive background information (32 pts)	Clear topic/question but some background confusing/unclear; additional details needed (24 pts)	Topic/question vague and background missing needed details (16 pts)	Topic/question weak with little to no background provided (10 pts)	
15	Project plan or how the question is to be answered	Strong evidence of thought and planning (details clearly articulated) (60 pts)	Good evidence of thought and planning (some details missing or confusing) (45 pts)	Some evidence of thought and planning (few details or plan not presented logically) OR multiple minor flaws in plan (40 pts)	Little evidence of thought or planning (little to no details; confusing) OR significant flaws in plan (15 pts)	
8	Significance or impact of project	Clearly articulated, strong statement of why this project is important (can be limited to student impact) (32 pts)	Shows some effort to describe project's importance; could be stated more clearly (can be limited to student impact) (24 pts)	Vague references to project importance or explanation difficult to understand (can be limited to student impact) (16 pts)	Little to no reference to project importance or not-understandable (can be limited to student impact) (8 pts)	No impact statement (0 pts)
5	Writing style	Clear, persuasive, and logical and well organized with little to no errors (20 pts)	Good overall; minor issues with clarity, logic, or level of detail; few errors (15 pts)	Adequate writing; isolated areas lacking clarity/ details or too many errors (10 pts)	Poorly written overall; confusing, lacking necessary details; excessive or significant errors (5 pts)	
25	Mentor form					
10	General recommendation from mentor	Strong recommendation with knowledge of student, abilities, and skills (40 pts)	Very good recommendation; some details of student, abilities, and skills (30 pts)	Good recommendation; few details of student, abilities, and skills (20 pts)	Weak recommendation; little known about student, abilities, and skills (10 pts)	No recommendation (0 pts)
15	Mentor's role: How mentor & student will interact (skill development, meetings, etc)	Strong evidence of mentoring relationship; includes details and plans (60 pts)	Good evidence of mentoring relationship; some details provided (45 pts)	Some evidence of mentoring relationship; details vague (30 pts)	Little evidence of mentoring relationship; little to no details (15 pts)	No description of how mentor & student will interact (0 pts)
7	Readiness for project	Strong evidence student is prepared for project (through classes, previous experience, etc) (28 pts)	Some evidence of readiness OR good plan/support for gaining needed skills (21pts)	Little to no evidence of readiness AND weak plan/support for gaining needed skills (14 pts)	Student does not seem ready for project and no structure/plan of support (7 pts)	
5	Sharing results	Clear and specific plan for sharing work with appropriate audience (beyond Discovery Day) (20 pts)	Vague plans to share work with others (beyond Discovery Day) (15 pts)	Only mentions Discovery Day (10 pts)		No plans to share work described in proposal (0 pts)
7	Timeline	Clear and detailed plan for completing work within project timeframe (28 pts)	Some details provided on the timing of various stages of the project plan (21 pts)	Vague references to project timing (14 pts)	Little to no details provided (7 pts)	

100

Georgia College Student Research Conference Committee Report 2011-12

Responsibilities

This year, the Georgia College Student Research Committee coordinated the 15th Annual Georgia College Student Research Conference and the 2nd Annual Georgia College Showcase of Graduate Research. The committee was also available to serve as an Advisory Board for *The Corinthian: the Journal of Student Research at Georgia College* if needed.

This report serves as a summary of both the activities of the committee and the other UR activities the members of the committee have contributed to and participated in over the past year.

Reports & Recommendations

1. **15th Annual GC Student Research Conference & 2nd Annual GC Showcase of Graduate Research (Spring 2012)**
   a. The combination of the conference and showcase was our largest student research event in the history of this annual experience. See the attached GC Student Research Programs Database for more info. *(Appendix A)*

   b. The committee sent a post-conference survey to all students and faculty sponsors to garner their feedback. Complete results of the survey are attached to this report. *(Appendix B)* Highlights include:

      i. On a scale of 1 to 10, with 10 being "very satisfied", how satisfied were you with the listed elements of the event(s) you participated in/attended.

Answer Options	Rating Average
Call for Submissions/Submission Process	8.38
Communication about the Event	7.85
Event Promotion	7.25
Event Schedule/Organization/Flow	7.70
Paper Presentation Session(s)	8.29
Poster Presentation Session	7.80
Reception(s)	8.02
Overall Conference Experience	8.04

      ii. On a scale of 1 to 10, with 10 being "very likely", how likely is it that you would recommend to others that they participate in/attend future GC Student Research Events.

Answer Options	Rating Average
Recommend Future Participation/Attendance	8.64

   c. The committee met for a post-conference debrief to discuss what worked well and what can be improved. The committee will capitalize on strengths and address challenges in order to enhance the quality of next year's conference.

d. The committee recommends the following dates and locations for the 2013 Student Research Events. The locations have been approved for these events by the Dean of the College of Health Sciences, Dr. Sandra Gangstead, and the Director of the GC Macon Graduate Center, Dr. Kendra Russell. Dr. Runee Sallad, Principal of GC Early College, has also been notified and has agreed to find an alternate location for Early College classes taking place in the HSB on the date of the Conference.

i. **16th Annual Georgia College Student Research Conference**
Friday, April 12, 2013
GC Health Sciences Building

ii. **3rd Annual Georgia College Showcase of Graduate Research**
Thursday, April 11, 2013
GC Macon Graduate Center

2012-13 Timeline: To facilitate the success of these events, the following timeline was established.

- 8/1/12: Pre-Fall announcement of dates/deadlines to campus
- 10/1/12: Mid-Fall announcement of dates/deadlines to campus
- 12/3/12: Pre-Spring announcement of dates/deadlines to campus
- 1/28/13: Submission system opens
- 3/8/13: Submission deadline
- 3/12/13: Committee meeting to assign sessions
- 3/22/13: Committee session assignments due to co-chairs
- 4/1/13: Schedule complete and program announced

In order to encourage greater participation in these events (and avoid scheduling conflicts), the committee requests the help of the GC Administration and Academic Leadership Team in communicating the dates of these opportunities to GC administrators, deans, associate deans, deans'/administrative assistants, department chairs, and faculty members as soon as possible and then periodically as a reminder.

2. The Corinthian: The Journal of Student Research at Georgia College

a. Volume 13 of *The Corinthian* was completed this spring and published this summer. This volume contains eleven papers written by GC student authors. See the attached GC Student Research Programs Database for more info. *(Appendix A)*

b. *The Corinthian* is preparing to implement several new processes and practices for 2012-13.

i. The journal plans to move from a print format to an electronic format. The editors believe this will allow the journal to showcase GC student research in new and creative ways and in a more modern, accessible, cost-efficient, and edit/update-friendly format.

ii. The journal plans to produce a Fall issue and Spring issue of Volume 14 for 2012-13. Traditionally, the journal has produced only an annual volume. Producing a Fall and Spring issue will allow the journal to better integrate natural course-related paper periods into the journal's submission timeline, stay relevant and current, and publish student papers more quickly.

iii. The journal plans to modify its submission process to place a greater emphasis on returning "Revise and Resubmit" designated papers in a timely manner and with encouragement to resubmit quickly. It is believed this will allow the journal to publish a larger number of initially non-accepted papers, by giving student authors a more visible pathway to improve the quality and resubmit.

iv. 2012-13 Timeline:
- Fall Volume - Accept submissions early February through mid-September. Publish late Fall.
- Spring Volume - Accept submissions mid-September through the early February. Publish late Spring.

c. *The Corinthian* is currently accepting submissions for the Fall Issue of Volume 14.

d. *The Corinthian* was led by a highly competent student editorial staff this year. The journal's editor, Sophie Dunne, graduated and will be replaced by one of this year's copy editors, Natalie Sharp. The editor and staff advisor will work with various departments on campus to identify and recruit new copy-editors.

Membership, Budget, & Future

1. Georgia College Student Research Committee 2012-13

a. Dr. Stephanie McClure and John Bowen are prepared to serve a third term as co-chairs of the committee for 2012-13. They understand their role may change with the addition of the Director of the Center for Engaged Learning and Coordinator of Undergraduate Research. Kathy Liu may step down as a representative from the College of Business. If so, a new representative will be named by the Dean. Josh Kitchens will join the committee. Additional faculty from other disciplines may be invited to join.

Current 2012-13 members include (subject to modification):
- John Bowen, Leadership Programs, *Co-Chair*
- Steve Elliott-Gower, Honors Program
- Gregg Kaufman, Government & Sociology (COLAS), *Citizen-Scholar Coordinator*
- Douglas Keith, Music Therapy (COHS), *IRB Chair*
- Josh Kitchens, University Archivist (Library)
- Bradley Koch, Government & Sociology (COLAS)
- Yi "Kathy" Liu, Information Technology & Marketing (COB)
- Kalina Manoylov, Biological & Environmental Sciences (COLAS)
- Stephanie McClure, Government & Sociology (COLAS), *Co-Chair*
- Brian Mumma, Foundations & Secondary Education (COE), *GC Macon Center Liaison*

2. **Budget**
    a. This year, the committee was approved the use of **$6500** from General Instruction to coordinate the 15th Annual Georgia College Student Research Conference and the 2nd Annual Georgia College Showcase of Graduate Research. The committee used **$4316.96** of these funds, as follows:

Portable Partitions (2)	$2,370.00
Conference Posters	$236.08
Conference Banners – 1st Relettering	$45.00
Conference Lawn Signs	$117.50
Conference Colonnade Ad - 1/2 Page, B&W	$91.00
Conference Banner – 2nd Relettering	$30.00
Conference Programs	$360.00
Conference Coffee	$162.11
Conference Reception	$394.13
Conference Post-Reception	$511.14
TOTAL	**$4316.96**

    b. The committee secured a sponsorship valued at **$394.13** from Sodexo for a conference reception. Sodexo has sponsored a conference reception for the past few years. The committee will pursue this sponsorship again next year.

    c. The committee requests a recurring budget of **$6500** for the annual conference.

3. **Future of the Committee at Georgia College**
    a. With the new position of Director of the Center for Engaged Learning and Coordinator of Undergraduate Research, the GCSRC anticipates that its role may change in relation to the coordination of the annual conference. The committee will plan to coordinate the 2012-13 GC Student Research Events, but is prepared to adapt its responsibilities as needed to work effectively with this new colleague.

Notable GC Student Research Initiatives

1. **2012 COPLAC Southeast Regional Undergraduate Research Conference**
    a. Georgia College hosted the **2012 COPLAC Southeast Regional Undergraduate Research Conference**. Dr. Steve Elliott-Gower, member of the committee, served as a liaison to COPLAC, managed the coordination efforts, and led the process to identify which GC students would present at the event. The COPLAC Conference was promoted along with the GC events and participating students were selected from all undergraduate students who submitted an abstract to the GC Student Research Conference. Twenty five GC students participated. Five COPLAC schools participated: Georgia College, University of Montevallo, University of Virginia at Wise, the New College of Florida, and UNC, Asheville.

2. **GC Undergraduate Research Mentor Awards** (formerly the Annual Recognition of Faculty Support of Undergraduate Research)
    a. A group of GC faculty, led by Steve Elliott-Gower and Tom Ormond, coordinated the submission and selection process for the **Undergraduate Research Mentor Awards** (formerly the GC Annual Recognition

of Faculty Support of Undergraduate Research). The submission process was consistent with what was established by the committee last year. The award structure was modified.

b. This committee believes this is an effective way to reward high-performing GC faculty. In the future, the committee recommends 1) the award criteria is shared broadly with the campus community, 2) the review and award process continues to value on-campus presentation and publication and recognizes variations in disciplinary practices and possibilities across campus, 3) that the original applications be archived for data collection/assessment to capture student research activities across campus, and 4) that these awards might best be announced annually at the GC Student Research Conference.

c. 2011-12 award committee included:
   - Sallie Coke, Nursing
   - Steve Elliott-Gower, Honors Program
   - Tom Ormond, Academic Affairs
   - Joanne Previts, Early Childhood & Middle Grades Education
   - Katie Simon, English and Rhetoric
   - Dale Young, College of Business
   - Caralyn Zehnder, Biological and Environmental Sciences

d. 2011-12 award winners included:
   $5000
   - Kalina Manoylov, Biological and Environmental Sciences

   $3000
   - Catrena Lisse, Chemistry
   - Julia Metzker, Chemistry
   - Sam Mututi, Biological and Environmental Sciences
   - Doreen Sams, Marketing

   $1000
   - Elissa Auerbach, Art
   - Karen Bendersky, Psychology
   - Scott Butler, Kinesiology
   - Tsu-Ming Chiang, Psychology
   - Stephanie McClure, Government and Sociology
   - Lana McDowell, Government and Sociology
   - Amy Pinney, Theatre

3. A **GC Undergraduate Scholarship Symposium** was held on January 28, 2012. Nine departmental teams developed action plans for research and creative activity. A list of participants can be obtained from Dr. Rosalie Richards (rosalie.richards@gcsu.edu), Kaolin Endowed Chair in Science and Director of the GC Science Education Center.

4. The first **GC Women's Studies Symposium** was held April 12, 2012. The committee will work with the planners of the 2013 symposium to cross-promote and support these events.

5. The **GC Student Government Association Academic Travel Fund Committee** provided financial support to at least 103 GC students presenting at professional conferences during 2011-12. *(Appendix C)* $15,000 is available annually for this purpose - $10,000 from the Heritage Fund and $5000 from SGA. A more complete and final list may be acquired from the SGA Treasurer (sga.treasurer@gcsu.edu).

6. Two undergraduate research related **Teaching Circles** were active this year. The committee has provided conference participation information to these Circles when requested. The two circles and their participants are as follows:
    a. "Effective Mentoring – Tools for Advancing Undergraduate Research at Georgia College" Koushik Barnerjee, Amanda Chase , Jennifer Hammack , Rebecca McMullen, Caitlin Powell, Doreen Sams, Hauke Bush, Rosalie Richards
    b. "Investigating how to integrate undergraduate re-search into the curriculum." Ryan Brown , Chris Greer , Kalina Manoylov , Chavonda Mills, Darin Mohr, Katie Simon, Chris Skelton

Note from URI Committee:
This report was crafted and generously contributed to the URI Report by Dr. Stephanie McClure and John Bowen, co-chairs of the Student Research Conference Committee

JOB DESCRIPTION

DIRECTOR OF ENGAGED LEARNING & COORDINATOR OF UNDERGRADUATE RESEARCH

Georgia College & State University seeks nominations and applications for a full-time position as the Director of the Center for Engaged Learning and the Coordinator for Undergraduate Research beginning July 1, 2012. The Center provides oversight and coordination of entities including American Democracy Project, Nonprofit Leadership Alliance, Service Learning, Leadership Programs, and Undergraduate Research. The successful candidate will enhance and promote engaged learning and undergraduate research initiatives that support the College's mission of providing excellence in teaching and in student-centered and transformative learning.

Georgia College is a member institution of the University System of Georgia and is the state's designated public liberal arts university. A member of the Council of Public Liberal Arts Colleges (COPLAC), Georgia College enrolls approximately 6,600 undergraduate and graduate students and is prominently cited for educational excellence in a number of leading publications. The university's beautiful and historic campus is located in Milledgeville, which was the 19th century capital of Georgia and is very near the geographic center of the state. Additionally, many of the university's graduate programs are located in nearby Macon and Warner Robins.

Georgia College is known for combining the educational experiences typical of esteemed private liberal arts colleges with the affordability of public universities. The university's main campus is a residential learning community that emphasizes undergraduate education and offers a select number of graduate programs. GC faculty and staff are dedicated to engaging students in the learning process through high impact pedagogies and fostering excellence in the classroom and beyond. Georgia College seeks to endow its graduates with a passion for achievement, intellectual curiosity, and an exuberance for learning and critical thinking. Our values include an emphasis on acting from a foundation of respect for self and others, fostering responsible leaders and global citizens, and cultivating relationships that enhance collaborative approaches to solving problems. Hiring preference will be given to faculty and administrators who demonstrate an understanding of Georgia College's mission and who are enthusiastic about working closely with high-achieving students within an academic community dedicated to the advancement of knowledge through learning and scholarship.

Reporting to the Associate Provost for Academic Affairs, the Director will be responsible for:

- Provide leadership that advances institutional goals associated with learning beyond the classroom;
- Serve as an organizational leader who can help set and advance the strategic direction of the Center;
- Coordinate and oversee the scope of work and projects associated with service learning, civic engagement, and leadership programs;
- Provide support and direction to the institution's student research initiatives;
- Build collaborations and creating synergy with the American Democracy Project, Nonprofit Leadership Alliance, Service Learning, Leadership Programs, and the Undergraduate Research initiative;
- Build collaborations and coordinating with other units (departments, advisory council, chairs, faculty, deans, CETL, Grants and Sponsored Projects, International Education Center, Career Center, GIVE Center, and other centers/programs) and externally (with COPLAC, CUR, other university centers with similar focus, Kellogg and other corporations associated with engagement, AASCU, Campus Compact);
- Advance/advocate for student engagement in curricula;
- Foster opportunities for students to achieve higher expectations beyond undergraduate ambitions;
- Forge collaborations between the university and the broader community to leverage local, regional, national and international partnerships;
- Find creative ways to recognize, reward, and draw attention to innovation and good work occurring across the campus as it relates to the Center's focus;
- Provide guidance/resources and disseminating effective national practices associated with the Center's work;
- Expand participation in Center programs;
- Expand resources to support the work of the center (including grant-writing and partnerships with external entities);
- Strategically align the Center's work with the College's mission;
- Manage resources, including budgets;
- Collect/analyze and use data effectively to inform Center work and complete reports associated with the Center;
- Hire/supervise/evaluate/develop/support the staff associated with the areas mentioned above;
- Assure compliance with applicable unit, university, and state policies and practices.