College of Arts and Sciences Budget and Planning Committee
Report on Program Review

Submitted December 1, 2023

The scored rubric became available at the beginning of Fall Break 2023. Departments and programs began writing 1000-word statements to contextualize rubric data during the last half of October at the same time that the scored rubric was updated multiple times to correct errors in the data, resulting in significant changes in program ratings. The final scored APR rubric is dated October 23, 2023. The final context statements were forwarded to the CAS Budget & Planning Committee on November 1 for the CAS-APR Phase 2 review. The six voting members of the committee then had only 21 working days, while maintaining their ongoing service, research, and teaching obligations in the last month of the fall semester, to accomplish the following work:

- analyze data and read context statements for 26 undergraduate and graduate programs that scored "approaching expectations" on the APR rubric in disciplines as diverse as Classical Studies and Physics,
- analyze data for 37 undergraduate and graduate programs that scored "meets expectations" on the APR rubric,
- discuss the program information provided,
- form consensus for recommendations regarding undergraduate and graduate program discontinuation and reinvestment, and
- write, edit, and submit a report documenting the work of the committee.

Rather than offer recommendations for discontinuation and reinvestment, the committee chose to offer evaluations for programs being considered for elimination. We did not offer recommendations for program reinvestment, as we concluded that we did not have adequate information to make such evaluations—most specifically, we did not have access to context statements indicating the needs for and justifications of additional resources. For programs being considered for elimination (i.e., programs receiving an overall rubric score of "meets expectations"), we carefully reviewed the available information, including context statements provided by programs, and found no compelling evidence to support recommendations for specific program discontinuation.

In producing this report, the committee concluded that the rubric data is unreliable or problematic in two particular ways: first, it overly prioritizes size over efficiency, thus categorically penalizing smaller programs, and second, it bases 14.3% of the overall rubric score on a metric with no conceivable value (4-year completion rate for a single cohort of students entering in Fall 2018). In addition, we observed numerous errors or misleading data, as noted in comments on particular programs.

Category 1 (39%/41% of the overall rubric score) assigns a 40% weight to overall credit hours generated and another 20% to revenue generated. Although a third metric (cost per credit hour) measures efficiency, roughly 24% of the overall rubric score simply measures the size of department. A large, inefficient department with rising costs and declining SCH production would, so long as it remained relatively large, outrank a small, efficient department with steady

costs and increasing SCH production. Although the size of a program is not meaningless—it provides useful information regarding student demand for majors and courses—the committee believes that greater attention to efficiencies would have provided more useful information. This emphasis on absolute size is reflected in other measures (see below). In addition, the data in this category is compiled by department, not program, making it difficult to determine the effectiveness of discrete programs within departments.

Category 2 (29/31% of the overall rubric score) measures application count (10%), admission count (10%), enrollment yield (10%), headcount (i.e., major) enrollment (20%), headcount enrollment trend (25%), and degrees conferred (25%). This is a better set of measures that captures student demand and trends pertaining thereto, but includes no measures that would identify smaller programs efficient in measures such as headcount enrollment *per FTE* or *cost* of degrees conferred.

Category 3 (10% of the overall rubric score) provides a number of reasonable measures involving grants, although, again, large departments are prioritized (since most measurements are in absolute terms rather than, say, per FTE), as are departments in fields where grants are more common and essential for supporting the work of the faculty member in the discipline. Given the relatively small weight assigned to this category and the importance of grants, the committee did not object strongly to the overall category, although several important errors were located (see individual program reviews for examples).

Category 4 (22% of the overall rubric score for undergraduate programs only) measures student success through four metrics: first year course completion rate (25%), four-year graduation rate (65%), average institutional hours earned (5%), and degree efficiency of new students (5%). At nearly 2/3 of the overall score, the four-year graduation rate is questionable on a number of fronts. First, it measures only the graduate rate of first-year majors irrespective of the degrees these students eventually earn. Second, it measures only the four-year rate, which is difficult for many of our students to achieve; including a 5- or 6-year rate would therefore be helpful in creating a more accurate picture of student success. Most egregiously, however, the data relies on a single cohort of students entering in 2018. To have majority of this category measurement dependent on that metric (and thus 14.3% of the overall score) is simply indefensible.
Category 5 (18% of the overall rubric score for graduate programs only) measures student success through three reasonable metrics. The usefulness of the data is, however, limited by the small sample sizes of the cohorts in many programs, and by the COVID-era disruptions that make degree completion during this period especially difficult.

The comments that follow reflect our consideration of the programs as captured by rubric data and context statements (we did not review any program prior to considering its context statement). Programs are listed in alphabetical order, with all programs grouped by department; the list therefore does not reflect any ranking of overall rubric score.

Department	Program	Score
African Amer/African Diaspora	BA - Afr Amn/Afr Diasp Studies	1.79

AADS offers instruction and programming that supports a critical area of UNCG's profile as a minority-serving institution. This program experienced a rebound in student credit hours in 2022-2023 to 3751 from 2990 in 2021-2022. Credit hours pre-pandemic were 4198, suggesting there is student demand for this program and AADS could increase student credit hours with more instructor resources and sections. AADS saw a decline in faculty FTE from 7.2 to 5.6 FTE from 2019-2023. AADS is a discovery major and is often added by juniors and seniors later in their studies. Thus, the degree efficiency measure penalizes discovery majors. Promoting this major to incoming and transfer students could increase enrollment and program demand. Also, AADS may be a second major or minor for many students, enhancing their overall credentials exiting UNCG. Degrees produced were steady in the range of 7-12. Revenue and grants are undercounted in this program rubric score as some AADS faculty have secured funding but that is credited back to the home departments instead of to the AADS. Several large grants were not included in the evaluation rubric score Category 3 for AADS and were credited to faculty home departments instead.

Chemistry & Biochemistry	BA - Chemistry	2.11

This program is a route for undergraduate students to continue to earn a chemistry degree with fewer credit hours and eliminating this program would offer no benefit to the department in terms of offering fewer courses or instructor resources. Instead, it would likely harm student success and could hurt the university by loss of SCH and loss of revenue for UNCG. Going forward, the BA/BS degrees in Chemistry and Biochemistry should be evaluated together, as they function as different pathways for undergraduate students to earn a degree in this STEM discipline.

Chemistry & Biochemistry	MS - Chemistry	2.48

This MS Chemistry and Biochemistry program enrollment is a major service to the undergraduate program at UNCG. MS students provide instruction to about 1000 undergraduate students enrolled in the laboratory courses; therefore, this program is essential to generating student credit hours and supporting the BA and BS in Chemistry and Biochemistry. Students earning a master's degree from UNCG go on to good careers that are in demand and also enroll in Ph.D. programs, thereby enhancing our university reputation.

Computer Science	BS - Computer Science	2.41

The Computer Science BA program is among the fastest growing programs in terms of SCH in the college with 30.8% growth. They are a large department with 71 degrees conferred in 2022-23. The rubric scores were low for student retention, with a larger number of students transferring out of the major or taking longer to graduate. STEM programs often have high attrition rates, and CS is no exception. But the job market for Computer Science is very strong and this program will continue to attract students to UNCG. While this program could do more to improve its retention rates, the university also needs to track students who switch from this major to make sure there is a "soft landing" in other programs within UNCG.

Computer Science PHD - Computer Science 1.91
Because this program was established in AY 2022-23, many metrics lack data and are therefore scored as "needs examination." Given (1) strong demand in the field of computer science, (2) the investment of institutional resources into the program during a time of scarcity (including one of the few tenure-track hires in the College in recent years), and (3) the lack of meaningful data, it would seem ill-advised to discontinue the program before it has a chance to establish itself.

Classical Studies BA - Classical Studies 2.39
Classics is a small, but valuable and productive department and always looking for ways to improve and grow their program. Their program is the largest in the state and their growth trajectory is increasing. It consistently leads in numbers of majors, nearly surpassing those of the next two highest UNC system schools combined, and accounting for 85% of the lower division majors in the system. From an examination of Categories 1 and 4, it's clear that Classics provides a financial benefit to the university and produces successful and productive students. Their average retention rate and low DFW rates for new first time and transfer students consistently rank among the highest in the College. Once a student chooses Classics as a major, they graduate on time. Further, they are a significant contributor to GEC/MAC. Its scores in categories 2 and 3 are negatively and unfairly impacted

Geography/Environment/Sustain BA - Environment and Sustainability 2.37
This degree program is only three years old and was available to students first in fall 2020. Since this program has yet to graduate its first cohort of students, this program unjustifiably received a score of 0 for four-year graduation rate resulting in an artificially low overall score for category 4. If it were assumed that the erroneous metric (metric R) simply resulted in Approaching Expectations, the overall score of the BAES would go up by 0.143 to 2.52, which would have been enough to place it in Meets Expectations, with no contextual statement required.

Geography/Environment/Sustain BA - Geography 2.28
The B.A. in Geography is a discovery major. Discovery majors are more likely to have lower four-year graduation rates, and more total SCH at graduation (metric T.1) due to almost unavoidable inefficiencies associated with mid-stream changes. "Discovery major" status also engenders lower numbers of first-year students as majors. The resulting small sample sizes of the cohorts in many programs, and by the COVID-era disruptions that make the rubric evaluation for four-year graduation rate (metric R) highly sensitive to miniscule differences. In fact, if just one more student had graduated, the graduation rate would have been 50% and would have placed this degree program in the "Meets Expectations" category.

Geography/Environment/Sustain BA - Geography, Secondary Education 2.08
As is the case with most secondary education programs, the Secondary Education Program in GES is provided as a service to the School of Education. It enrolls relatively few students but requires no additional resources from the department. This program should remain in place since its elimination would neither increase efficiency nor decrease spending. It would only do away with a program that students who which to pursue career in education need.

Geography/Environment/Sustain BS - Geography 2.08
This degree program is only three years old and was available to students first in fall 2020. Since this program has yet to graduate its first cohort of students, this program unjustifiably received a

score of 0 for four-year graduation rate resulting in an artificially low overall score for category 4. Considering that data sets on four-year graduation rate of a program that is just three years old are not available, the scores of 0 for metrics R, T.1 and T.2 are totally inappropriate and should not be considered in this evaluation.

Geography/Environment/Sustain MA - Applied Geography 2.46
Category 1, which is the most heavily weighted category, shows a skewed representation of the department, which negatively impacts the overall metric rating for the Master Arts in Applied Geography. Non-personnel expenses show a large increase ($60,147 to $201,738) in 2021-2022. The increase is due to end of the year fiscal funds awarded to maintain the GISc (geographic information science) infrastructure for the labs and upgrades to faculty computers. In addition, two faculty were on research leave causing a decrease in credit hour production. Category 2 shows the program is approaching expectations, despite difficulties experienced with graduate coursework that is inherently collaborative completion during the pandemic. The headcount enrollment growth is trending upward.

Geography/Environment/Sustain PHD - Geography 2.45
Category 1, which is the most heavily weighted category, shows a skewed representation of the department, which negatively impacts the overall metric rating for the Doctoral program in Geography. Non-personnel expenses show a large increase ($60,147 to $201,738) in 2021-2022. The increase is due to end of the year fiscal funds awarded to maintain the GISc (geographic information science) infrastructure for the labs and upgrades to faculty computers. In addition, two faculty were on research leave causing a decrease in credit hour production. Category 2 shows the program is approaching expectations, despite difficulties experienced recruiting students during the pandemic, who will complete graduate coursework that is inherently collaborative and therefore challenging to achieve.

History BA - History, Secondary Education 2.22
This program is UNCG's primary producer of teachers with licensure in Social Studies (40 of 46 total Social Studies majors are in History). As a separate program (unlike paths to secondary licensure in other departments, which are organized as concentrations), it is evaluated separately from the BA in History, which meets expectations in its overall evaluation. This disaggregation has the effect of punishing it, as a separate and relatively small program, in ways that are not applied to other departments offering paths to secondary licensure in social studies. (Combined, the two BA History programs would "meet expectations" and indeed score higher than either taken separately.) With many courses in its curriculum offered by the School of Education, the program is not resource-intensive, and while its enrollment has declined from 76 to 55 in the three years measured, the latter number is robust (both in absolute terms and trends) in comparison with other separate secondary licensure programs. Given the current teacher shortage in North Carolina and the success of program graduates in obtaining jobs, the program contributes substantially to secondary education in the state.

History PHD - History 2.14
The program's low overall score is predominately attributable to its relatively small size and small enrollment: 3, 3, and 6 new students enrolled in the program during the years represented, and the overall headcount enrollment held steady at 29-27-27. The program notes, however, that it was approved in 2004 with the stated goal of enrolling no more than 5 new students per year,

an average (4.99) it has maintained since its inception. Lower enrollments in the first two years are partly attributable to a class of 7 enrolled immediately prior, thus leading to intentionally smaller cohorts thereafter in order to maintain adequate resources. The program also scored low in student success, with only 1, 3, and 2 degrees granted during this period studied. Partly, this is due to COVID restrictions during the period, which severely hampered the ability of doctoral candidates to visit archives, an essential part of the PhD dissertation in history. As one of two PhD programs in the humanities, history supports undergraduate education in the teaching provided by its students, who contributed over 10,000 SCH during the 3-year period at a relatively low cost. Graduates of the PhD program have a high rate of success in landing full-time academic positions in the greater region fulfilling the demand identified when the program was created.

Informatics and Analytics MS - Informatics and Analytics 2.26

Informatic and Analytics is a relatively new (2019) and small (3.5-4.13 FTE) program in the high-demand field of data science. Its productivity metrics are somewhat misleading in ways true of all small programs and in ways particular to this one. Specifically, MSIA students take several courses in Computer Science, Math and Stats, and Information and Supply; although the metrics (rightly) credit those programs with SCH production, they do not reflect that MSIA students would not be at UNCG without the program. In the grants category, two of the program's three tenure-track faculty members hold grants totaling more than $750,000—an impressive number for a program of this size. These, however, are not credited to the program in several metrics because the grants were awarded while the faculty members were, when applying for grants, housed in other departments. Although the grants are properly shown under "expenditures" (10% of the category score), they do not appear, for example, in "grants submitted" (10%) and "grants awarded" (20%), thus leading to a category rating of "approaching expectations." Had the grants been credited to MSIA in all metrics, the resulting rating of "exceeds expectations" would have raised MSIA's overall score from 2.26 to 2.46. Demand for and enrollment in the program are strong and growing. Enrollments grew from 41 to 53 in the three years measured, an impressive increase for a program with so few faculty.

Interior Architecture MFA - Interior Architecture 1.83

Although this program has seen low admissions (3-5-1 in the three years for which data is provided), overall enrollments (11-11-5), and degrees conferred (3-6-1), it is a terminal degree program unique in the state of North Carolina. A meaningful revision of the program undertaken in 2021 made several changes whose effect cannot, at present, be evaluated. It would be desirable to determine whether incoming enrollments will rise to the desired 8-10 students per year rather than the 1-5 new students enrolled in the years measured. Through its Center for Community-Engaged Design and the state-funded Main Street Fellows program, the program provides high impact learning experiences and meaningful community engagement, which is a part of our Carnegie-Engaged Designation as a Community Engaged University. Resources devoted to the program are minimal, since many courses are taught as independent studies and thus not considered as part of the standard faculty workload.

Languages, Lit and Cultures MA - Languages, Literatures, Cultures 2.45

This MA program with concentrations in Spanish and French and Francophone Studies cannot be accurately assessed independently of the LLC MAT program, which was rated as "Meets

Expectations." Both programs share the same faculty and resources. These programs are small, and the enrollment of each strengthens the other. The MAT program will likely become untenable without the MA enrollment. The teacher shortage in North Carolina makes these programs essential. Because of this pressing need in our state for more teachers, job placement of MAT graduates is 100%. The problem of attracting more people into the teaching profession is bigger than UNCG and this program will be positively impacted by a greater investment by the state in public education. The rubric measures distorted some aspects of this program. Rubric scores were artificially low on student success measures during the pandemic year because of the demographic of students in this program (who were most impacted by the need to stay home with kids). Also, the committee noticed a discrepancy in the data between the data dashboards and the rubrics. While the data dashboard reported 5 degrees conferred in 2020, the rubric reported 0 degrees conferred for that same year.

Liberal/Prof Studies	BA - Liberal/Interdisciplinary Studies	2.30
Liberal/Prof Studies	BS - Professional Studies	2.03

These programs do not score well according to the rubric rating system because they are not departments and have no faculty solely committed to them. There are no grants or fellowships, for instance, but there are also very few costs. These programs exist to help students earn a degree without the rigor of completing an actual academic program within a department. Rather they allow a collection of upper-level courses across many disciplines to count toward the degree. Most courses are taught online and they often serve students who had abandoned their degree but decided to come back to school and finish. As a result, the "student success" measures are very low because nearly all have taken longer to graduate. These programs are essential, however, in helping the overall graduation rate of the University and enable a large number of students to receive degrees who would not have otherwise.

Liberal/Prof Studies	MA - Liberal/Interdisciplinary Stds	2.39

According to the data, this program (along with the BA in Liberal/Interdisciplinary Studies) generates $2.85 million in revenue at a cost of $0.00, making it arguably the most efficient program at UNCG. However, it receives a "Needs Examination" rating in the "Cost per SCH" metric, which leads to an "Approaching Expectations" rating in Category 1. In reality, this is likely one of the most economically efficient programs at UNCG, as SCH production has seen only a modest decline and most instructors are Professional Track faculty. As such, their workload is devoted primarily to teaching, with little expectation of grant activity. But even with low Category 3 scores, the overall score would be comfortably above the "Meets Expectations" threshold if the computer had figured out how to divide by zero. A decline in enrollments, however, from 73 to 35, indicates some cause for concern, although the program offers some courses that are taken by students in other programs that may not be able to mount adequate graduate schedules.

Mathematics and Statistics	BA - Mathematics	2.35

The BA degree was evaluated less favorably than the BS degree in Mathematics. However, offering the BA and BS degree options in STEM disciplines is common approach. It allows for students to earn their degree in math by taking 36 credits for the BA or taking 48 credits for the BS. Student credit hours dropped slightly during the past 4 years (-12 percent), which could reflect declining overall enrollment at UNCG than demand for major. SCH per faculty are steady at 587 during 2021-2022 and 2022-2023. The department holds an NSF grant for summer

undergraduate research, which is a prestigious federal award that enhances UNCG reputation as preparing undergraduate students in statistics and mathematical science.

Physics and Astronomy BS - Physics 1.76

Like other STEM programs, there are high attrition rates for Physics that impact its overall numbers. This is true at other campuses as well and while UNCG's Physics program has lower retention rates as compared to all programs at UNCG, we cannot judge how they compare to other Physics programs. Students often take longer to graduate because of challenging higher Math courses. Yet, the subject matter is crucial to the STEM profile of the university and would weaken other programs if Physics was not being taught. Their Observatory and Planetary projector is run by the department and serves as a popular public-facing arena where community members get involved with the campus. It also provides high-impact learning opportunities for students. A proposed BS in Physics with a Concentration in Nanoscience promises to attract more students to this major. This collaboration with the Nanoscience Department at JSNN, will include fewer math requirements and more emphasis on computational and modeling skills. The failure of the rubric data to include double-majors may also be especially disadvantageous for Physics because many of their students add it as a second major.

Physics and Astronomy BA - Physics 1.74

The BA program is very small and it consists largely of students who started in the Physics BS program but struggled with some of the higher-level requirements. It makes little sense to examine the BS and BA programs separately, or to cut the BA which compliments the BS program while sharing most of the same requirements. The BA serves the BS program by offering an alternative route to graduation for those who aren't able to complete the 400-level Math requirements.

Religious Studies BA - Religious Studies 1.81

The overall rubric rating cannot be adequately judged because of major errors in the calculation of departmental costs which had been inflated by over $600K due to CAS bookkeeping quirks that had nothing to do with Religious Studies budget. This uncorrected error distorted the ratings and turned an area that should have been a strength into a weakness. Many Religious Studies programs are housed within Philosophy departments and this program is very small and functions as a "discovery major" at UNCG that recruits students especially from General education courses. As such, Religious Studies offers a great many MAC courses and does important service to the University. The department is adding a "pre-Divinity" concentration that explicitly takes a pre-professional approach by training students to enter the clergy. This initiative combined with the department's involvement in the e-sports programs promise to bring more students into the department in the future.

Women's, Gender, and Sexuality BA - Women's/Gender/Sexuality Studies 2.16

WGS offers programming that supports a critical area of UNCG profile as a minority-serving institution and has the largest number of WGS majors according to the UNC System Dashboard. Enrollment is described as "steady" with 44 undergraduate majors, 62 undergraduate minors, and 12 master's students. WGS is a discovery major and is often added by juniors and seniors later in their studies. A low category 2 rubric score of academic demand/ efficiency penalizes discovery majors, including WGS. Greater enrollment could occur with promotion of the WGS major to incoming students. Expansion of WGS courses is restricted by staffing, which is one full-time

tenured faculty, one full time professional track, and a part time tenured faculty member who also teaches in AADS. The program director is part of another department (currently Professor of History). This is an efficient use of instructor resources, and expanding faculty would likely increase credit hours generated. Student credit hours increased from 1839 in 19-20 to 3216 in 22-23, suggesting increasing demand for courses.

Women's, Gender, and Sexuality MA - Women's/Gender/Sexuality Stds 2.10
Student enrollment is steady ranging from 22-28 students across the review period. This is an appropriate to large number of students given the faculty resources available to supervise master's thesis projects. Degrees conferred ranged from 6-10 annually from 2019-2023. The MA program is bringing in revenue and provides opportunities for advanced coursework for graduate students across disciplines. Instruction in the MA program benefits other doctoral students by taking courses from WGS faculty. According to the UNC System Dashboard, this is the only MA program in Women, Gender Studies offered in North Carolina, which means this could draw students to enroll at UNCG in this discipline for advanced graduate work.