RUTGERS
School of Arts and Sciences

2020–21 School of Arts and Sciences Annual Program Assessment Report

Executive Summary

Conducted in a time of unprecedented disruption, the School of Arts and Sciences 2020–21 assessment record demonstrates the resilience and commitment of the School's faculty, students, and staff.

42 of 45 departments or major programs[1] in SAS filed comprehensive assessment reports this year. The SAS Honors Program also filed an assessment report, bringing the total number of reports filed to 43.

The COVID-19 pandemic and the pandemic-necessitated shift to remote/online instruction are, of course, the inescapable context surrounding this year's assessment activities. The report that follows, as well as other feedback and input from SAS departments and faculty over the past year, suggest the following key findings:

Resilience of assessment practices in SAS: SAS opted to continue regular assessment structures this year, judging that the inquiry-oriented framework first introduced in 2018–19 provided the flexibility and focus on producing useful results needed to respond to the moment.

Student struggles and faculty flexibility: assessment reports, faculty discussions throughout the year, and other avenues (including the *Voices of Diversity* student panel series) made it clear that Rutgers students encountered a wide range of personal and academic difficulties this year. SAS faculty, on the front lines working with struggling students—while also facing many personal and professional challenges themselves—overwhelmingly responded with kindness and understanding. This manifested in many ways, including proactive adjustments to instructional plans; increased flexibility in course requirements; referrals to support services; and simply listening with empathy.

Increased attention to inclusiveness and equity: SAS faculty were acutely aware that the difficulties students encountered were inequitably distributed. Many were also deeply moved by the movement for racial justice that gained widespread attention in the summer of 2020. In response, many SAS faculty made course-level efforts to make their (remote) classroom environments more inclusive, increase the inclusiveness of their course content, and connect their course topics to social and racial justice, with the recognition that these must be ongoing conversations and efforts. Several SAS departments or programs also focused their assessment efforts on better understanding or addressing demographic disparities in achievement of learning outcomes.

Changes to assessment that *both* respond to limitations of remote/online instruction *and* implement best practices: in response to the shift to remote/online instruction, many instructors across SAS changed the way they assess student learning. This included:

1. In this document, "department" refers to any department or program offering an undergraduate major *and* Organizational Leadership, which offers only a minor.

- shifting from high-stakes exams to frequent low-stakes assessments;
- providing students with choice and flexibility in assessment formats;
- providing creative assessment options like presentations, podcasts, or applied projects as alternatives to traditional academic papers or exams; and
- in some quantitative courses, focusing assessments on conceptual understanding and application rather than computation.

In some cases, these changes were motivated by concerns about academic integrity in an online setting where proctoring tools are unreliable and inequitable. In other cases, these changes were motivated by faculty members' desire to reduce high-stress assessments for students living through a global pandemic.

Excitingly, these changes also implement many best practices in instruction and assessment, including distributed and interleaved practice, scaffolding, and project-based learning. The SAS Office of Undergraduate Education has supported this shift since the earliest days of the pandemic, and is encouraging faculty to continue these techniques as we return to in-person education.

Limitations of Remote/Online Instruction: some skills, especially laboratory and field skills, must be developed in person. Departments either suspended attempting to develop these skills in the remote environment, or attempted to do so but noted serious deficiencies in student mastery without hands-on practice. All the departments whose learning goals include hands-on skills intend to place a high priority on helping students to develop those skills as they return to in-person instruction.

Difficult-to-interpret results: given the many overlapping disruptions to students' lives and instruction this year, it is difficult to interpret this year's assessment results, and especially difficult to compare them to prior years. Some departments are responding by withholding interpretation of their results until (at least some of) these disruptions recede. Others are treating assessment results as providing a reasonable basis to plan research-based strategies that are likely to improve student learning, even when the explanation for those results is indeterminate.

In sum, across SAS, faculty, administrators, and students have demonstrated remarkable resilience, creativity, and commitment to the School's educational mission. As the report below details, faculty worked tirelessly to develop and assess innovative, impactful educational practices that will continue to benefit students as the pandemic recedes.

Introduction

The critical undergraduate education mission of the School of Arts and Sciences is to achieve excellence, create opportunity, and build leadership by providing a high-quality, nationally recognized arts and sciences education to a highly diverse student population.[2] In addition to the

2. Excellence, Opportunity, Leadership: Strategic Plan for the Rutgers University School of Arts and Sciences,

SAS Core Curriculum goals,[3] our students will:

- meet rigorous disciplinary learning goals in major and minor fields of study (or a single credit-intensive major field of study); and
- reach an advanced level of achievement in those Core Curriculum learning goals of particular relevance to the individual student's major, minor, and areas of elective interest.

The COVID-19 pandemic forced almost all AY2020–21 SAS undergraduate instruction into a remote format. Despite this disruption of traditional instructional modes—and a host of other disruptions to university operations and student and faculty lives due to the pandemic—SAS faculty, staff, and students persisted in their dedication to the School's educational mission.

This persistence extended to the School's assessment practices. The SAS Office of Undergraduate Education began communicating with SAS departments about program assessment strategies in October 2020, conveying:

- the importance of continuing to assess students' mastery of learning goals;
- strategies for using the assessment process to better understand the impact of remote instruction; and
- the importance of engaging in assessment work throughout the year.

In February 2021, representatives of 19 SAS departments attended a program assessment workshop in which SAS OUE discussed assessment basics and presented examples of assessment excellence in SAS.[4] During this time, Director of Teaching, Learning, and Assessment David Goldman and Associate Dean of Undergraduate Education Sharon Bzostek also consulted with 11 departments about their program assessment plans, providing guidance and assisting in collecting additional data as necessary.

Since 2018–19, SAS has implemented a broadly inquiry-oriented framework for program assessment processes and practices. This approach asks departments to identify a question about student learning that they will investigate through the assessment process; describe their methods for investigating that question; and state their results. Departments are also asked to explicitly connect this inquiry to the ultimate goal of improving student learning, and explain how they disseminate, analyze, and act on the results obtained.[5]

2016-2020. http://sas.rutgers.edu/documents/office-of-the-dean/office-of-communications/859-srategic-plan-for-the-school-of-arts-and-sciences-2016-2020

3. The Core Curriculum is addressed in a separate annual assessment report submitted to the Assessment Council on Learning Outcomes, the Core Requirements Committee, and the Executive Dean of SAS.

4. Program assessment guidelines and resources for undergraduate directors, including slides from this workshop, are posted on the SAS OUE website at https://sasoue.rutgers.edu/program-assessment/guidelines. Additional examples are also posted at https://sasoue.rutgers.edu/program-assessment/examples.

5. Elements of this approach resemble that highlighted by the National Institute for Learning Outcomes Assessment in Jankowski, N. A. (2012). St. Olaf: Utilization-Focused Assessment. NILOA Examples of Good Assessment

This process is designed to engage faculty in authentic, impactful assessment practices by (1) focusing on the *use* of assessment results and (2) providing departments with the flexibility to focus their assessment efforts on areas that they judge to be most important for their programs.[6]

In February 2021, the Assessment Council on Learning Outcomes (ACLO) requested specific information about the pandemic's impact on program assessment processes, learning goals, and learning outcomes. SAS did briefly consider revising the program assessment reporting form to focus exclusively on these specific questions. However, many departments had already begun their assessment efforts guided by SAS's inquiry-oriented process, and SAS OUE staff judged that the existing SAS reporting form was, for the most part, well-suited to eliciting the information requested by the ACLO. Thus the inquiry-oriented reporting form was retained for 2020–21, with slight modifications to request additional information about changes to learning goals and expectations. That reporting form is attached to this report as Appendix A.

As in prior years, annual reports submitted by departments are reviewed by the SAS Office of Undergraduate Education, which prepares this annual summary report for the SAS Executive Dean and the Assessment Council on Learning Outcomes. This review is guided by a rubric incorporating both the ACLO's 2020–21 pandemic questions and the Assessment Checklist for Academic Programs utilized in past years. For all department reports, the Director of Teaching, Learning, and Assessment and the Associate Dean score each checklist item along a 3-point scale from "best practices" to "progress slow or stalled."

The results of this rating are presented and discussed below. Because of the continuity with past years' assessment processes, our discussion first responds to the more focused questions asked by the ACLO this year, then reports on the other dimensions of assessment practices traditionally examined in SAS's assessment reporting.

The SAS Director of Teaching, Learning, and Assessment and the Associate Dean for Undergraduate Education also prepare drafts of individual reviews of each department's report. The SAS Assessment Committee reviews these drafts and makes modifications as needed. These reviews are then returned to the departments. The SAS Assessment Committee also schedules midyear follow-ups with departments that appear to be stalled or in need of support in their assessment efforts.

Practice (pp. 1–9). Retrieved from http://learningoutcomesassessment.org/CaseStudyStOlaf.html

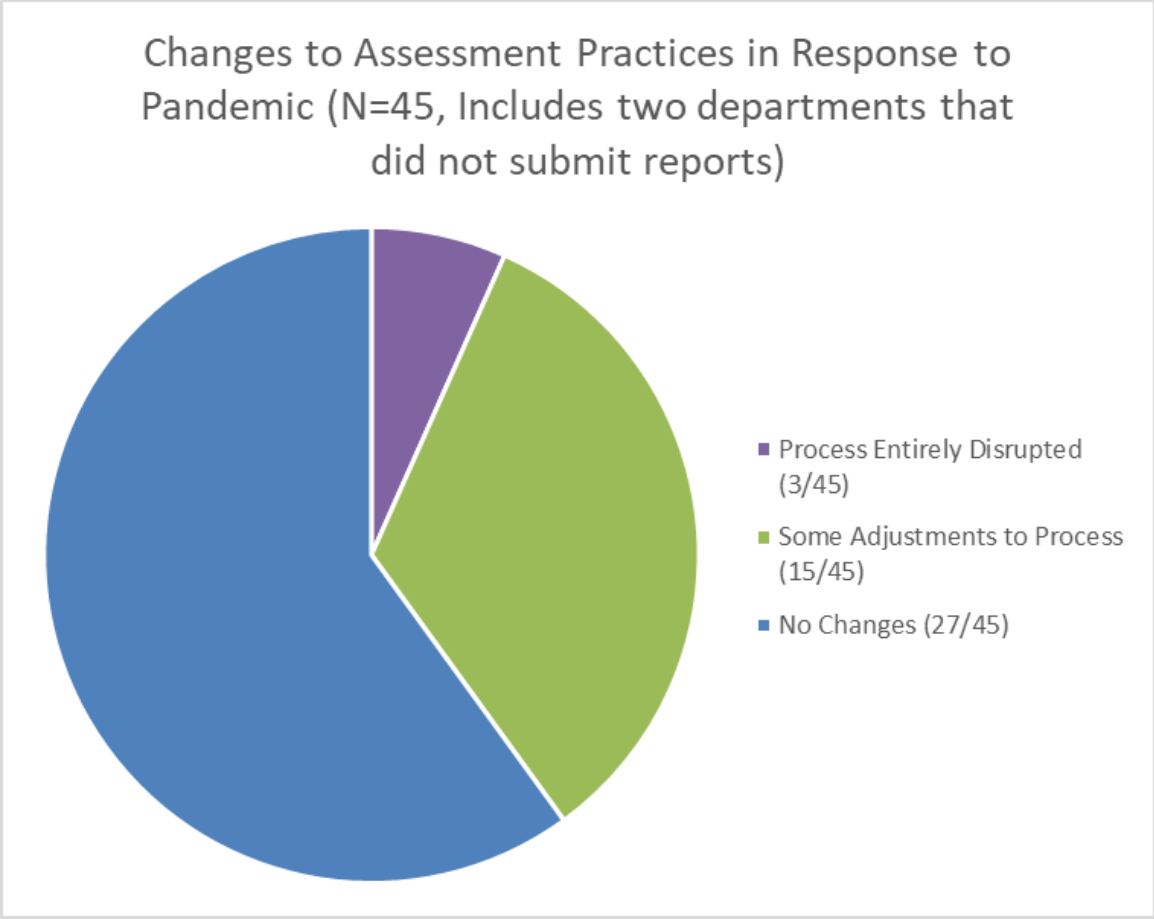
6. The SAS Assessment Committee and the Office of Undergraduate Education undertook this revision in 2018–19 in response to faculty focus groups and ongoing discussions in the scholarly literature on assessment practices, both of which indicate that faculty disengagement and disillusionment with the assessment process—sometimes manifested in a view of assessment in terms of compliance rather than improvement—is often a barrier to the use of assessment findings to improve the quality of undergraduate education. See, e.g., Banta, T. W., & Blaich, C. (2010). Closing the Assessment Loop. *Change: The Magazine of Higher Learning*, 43(1), 22–27. http://doi.org/10.1080/00091383.2011.538642; Cain, T. R., & Hutchings, P. (2015). Faculty and Students: Assessment at the Intersection of Teaching and Learning. In *Using Evidence of Student Learning to Improve Higher Education* (pp. 95–116). John Wiley & Sons.; Stanny, C. J. (2018). Putting Assessment into Action: Evolving from a Culture of Assessment to a Culture of Improvement. *New Directions for Teaching and Learning*, 2018(155), 113–116. http://doi.org/10.1002/tl.20310; and Stitt-Bergh, M., Wehlburg, C. M., Rhodes, T., & Jankowski, N. (2019). Assessment for Student Learning and the Public Good. *Change: The Magazine of Higher Learning*, 51(2), 43–46. http://doi.org/10.1080/00091383.2019.1569972.

Impact of the Pandemic and Remote Instruction

Impacts on Learning Outcome Assessment Processes

> *Has there been a change or disruption to your learning outcome assessment processes for your departments and programs, given the adjustments that you have made to cope with the pandemic and its consequences? If so, please give two examples of how you have adapted your processes.*

As described in the Introduction above, in 2020–21, SAS continued to use the inquiry-oriented framework for department-level program assessment and reporting first introduced in 2018–19. Most of the 45 department and major programs[7] in SAS engaged in assessment activities in 2020–21:



Three programs either did not file reports or reported that that their program assessment activities were entirely disrupted by the COVID-19 pandemic. The SAS Assessment Committee will

7. This total also includes the SAS Honors Program, which is neither an academic department nor a major program but files program assessment reports each year.

request that these departments file mid-year reports for the 2021–22 assessment cycle to ensure that their assessment efforts remain on track.

An additional 15 departments or major programs made some adjustments to their program assessment processes in response to the COVID-19 pandemic. Many of these adjustments involved focusing on the impact of the pandemic and remote instruction. For instance, the German department investigated the question:

> Did students completing the German language courses (01:470:101, 102, 131, 132, 231, 232) in the remote environment demonstrate changes (decrease) in mastery of learning goals…specifically, in the proficiency in spoken and written German as well as general cultural fluency relating to German-speaking Europe and its history, and in their skill in writing and the critical analysis of written texts and other cultural artifacts related to the study of German?

And Molecular Biology and Biochemistry investigated this question:

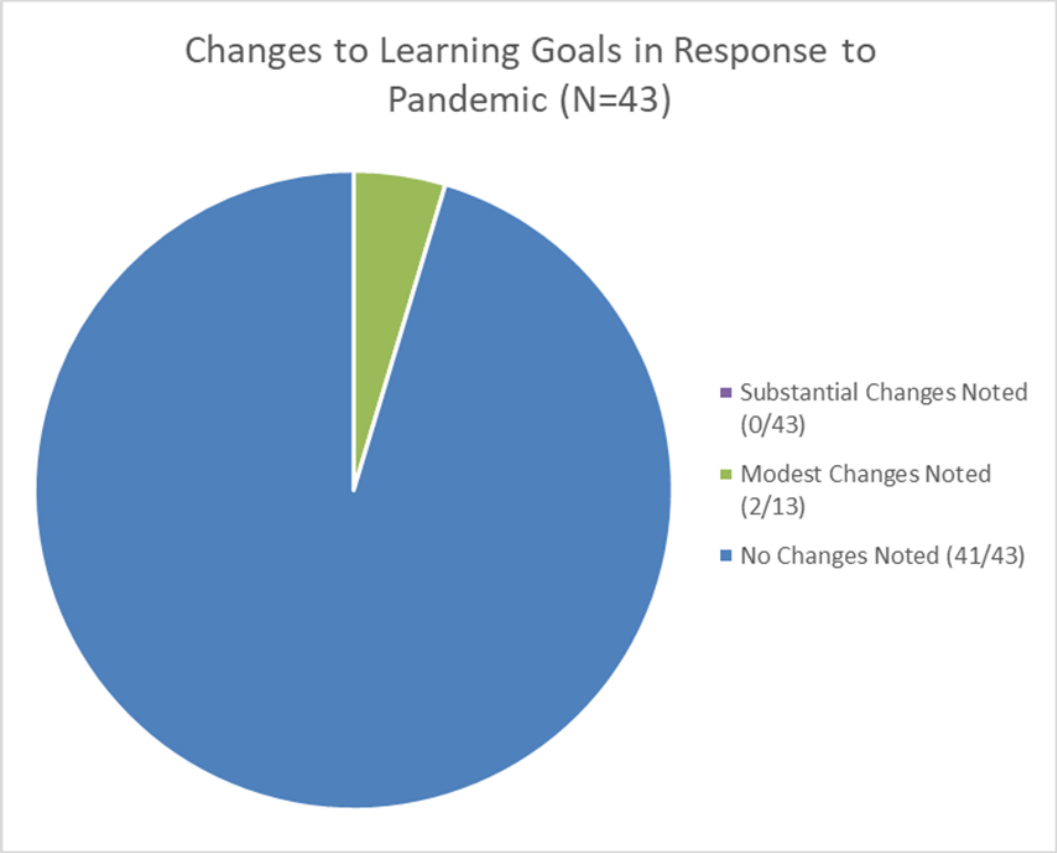
> Did students completing MBB service (694:301) and core courses (694:407, 408, 214, 215, 315, 316, 383, 484 and independent research courses) in the remote environment demonstrate decreased mastery of learning goals, as compared with prior years?

The remaining 27 SAS departments or programs did not explicitly investigate pandemic- or remote-instruction-related assessment questions. However, many of those departments did interpret their results in light of the impact of the pandemic and the shift to remote instruction.

Impacts on Learning Goals and Expectations

> *Have you changed any of your learning goals or adjusted your expectations for the learning outcomes of your departments and programs because of your response to the pandemic? If so, please give two examples.*

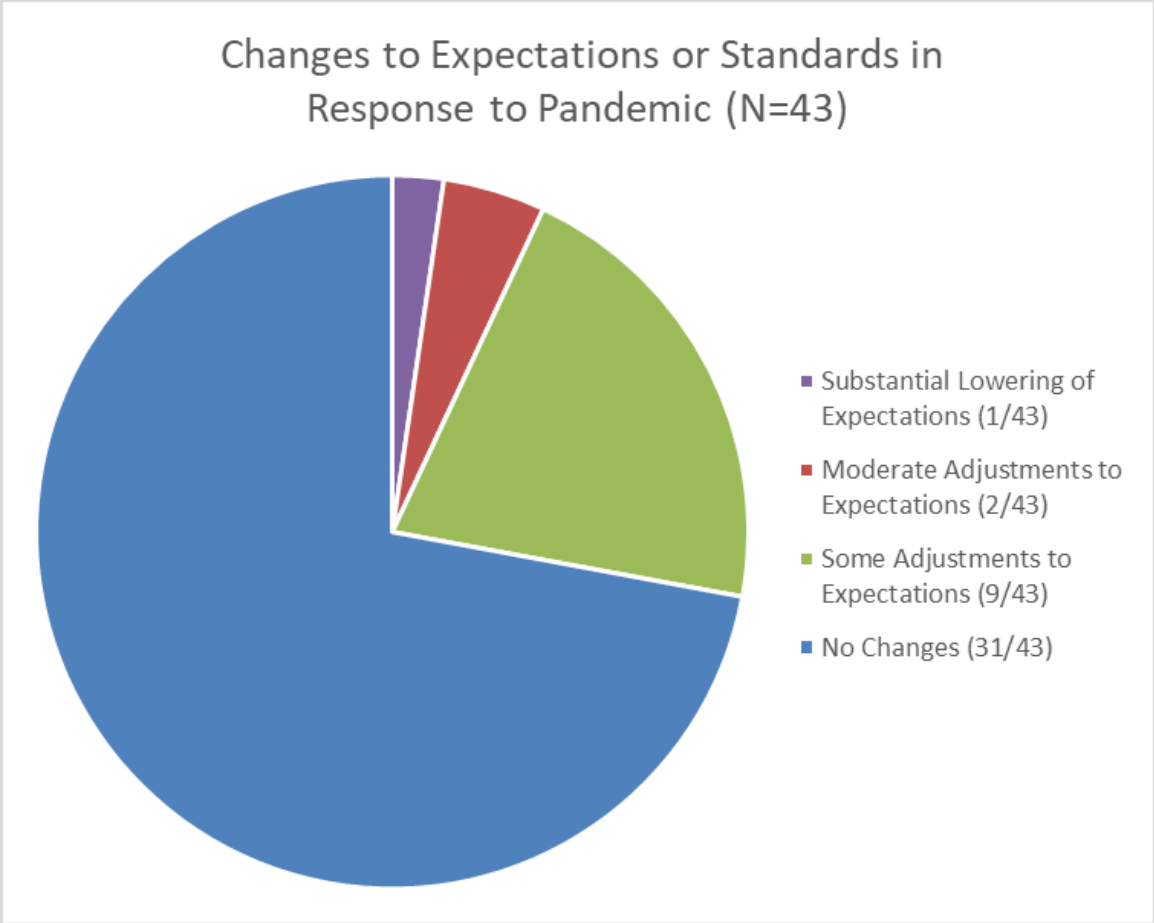
The vast majority of SAS departments or programs filing assessment reports reported **no changes to their learning goals** due to the pandemic:



The two exceptions, Chemistry and Chemical Biology and Marine and Coastal Sciences, reported modest adjustments due to limitations of the remote environment:

> **Chemistry and Chemical Biology:** LG4 had to be adjusted in response to the pandemic. Typically, mastery of the basic experimental techniques in the four subareas of chemistry requires knowledge and understanding of the basic concepts as well as hand-on skills. The latter could only be demonstrated through videos or learned by students in virtual laboratory settings. Real hands-on experimentation was not possible. However, majors typically take the laboratory courses required for the degree over the course of five semesters. Thus, each will have sufficient hands-on experience in most experimental techniques after completing the program to be employable in industry or attend a chemistry graduate program.
>
> **Marine and Coastal Sciences:** Two courses mainly target Learning Goal 2 (Oceanographic Methods and Data Analysis: Biology and Chemistry 628:363; Oceanographic Methods and Data Analysis: Physical Processes 628:364). Normally, students complete the first half of the semester learning about the principles and operation of oceanographic instrumentation in preparation for deploying them and collecting data on an actual research cruise in the second half of the semester. Because all field operations were suspended during the pandemic, these courses were not taught in 2020-2021.

More than two thirds of SAS departments or major programs **did not report any changes to expectations or standards** in response to the pandemic:



The remaining 12 departments or programs made varying degrees of adjustment to their expectations or standards.

Only one program reported a substantial lowering of expectations, indicating that a faculty member teaching the capstone seminar used for program assessment purposes was "much more lenient…this term than last year when the course was taught mostly in person." Two other departments or programs reported moderate adjustments to expectations.

Nine other departments or programs reported making some adjustment to their expectations at either the program or course level. Such adjustments did not involve a clear lowering of expectations; rather, they involved significant changes to the exams, papers, and other assignments that students were expected to complete.

These adjustments commonly included increased flexibility. One department, for example, "encouraged the faculty to adjust their assignments and expectations to the circumstances on an individual basis;" in another, "comprehensive in-class final exams were replaced with an open-book type examination or a capstone project." A handful of departments reported challenges related to academic integrity in the remote environment, leading to concerns that submitted work did not accurately reflect student mastery of learning goals.

In many cases, the COVID-19 pandemic prompted the development of innovative and more effective assignments and exams. For instance, in Mathematics:

> We immediately saw that it was easy for students to use unauthorized resources for our online exams, so we had to make adjustments in administering the exam such as 1) giving more exams so each exam would count less and therefore reduce the motivation to use outside resources, 2) give exams in parts to ensure students are not communicating the answers to each other. But because it was easy for students to use apps or programs to find answers to algorithmic or computational type items, some courses switched emphasis from testing computational items to testing concepts.

And, in French:

> In at least one course (Learning and Sharing French, 420:318), the capstone project was fully redesigned due the remote teaching mode. This led to the creation of a webzine to reach out to New Jersey high schools, an exciting development that we plan to adopt for future semesters. Overall, remote teaching has led instructors to employ a wider range of active learning teaching strategies to meet the needs of 21st-century learners and to update evaluation criteria for student products.

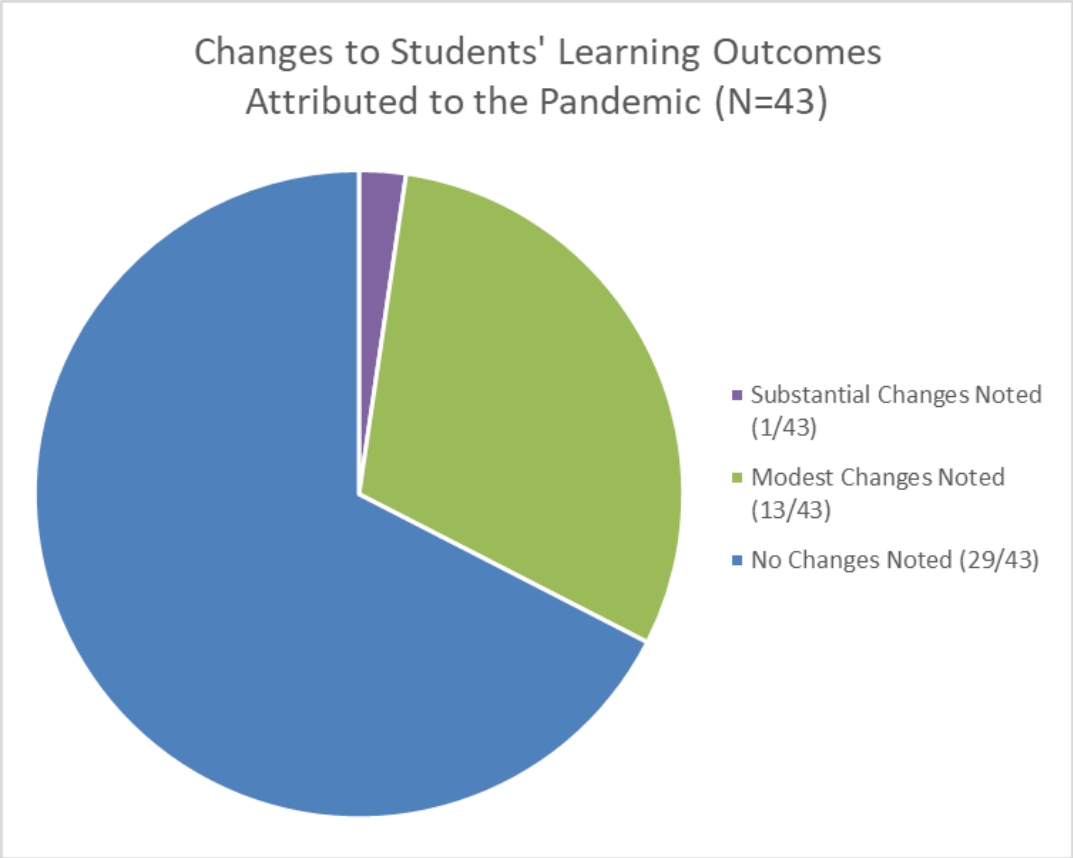
These changes began as practically necessary adjustments in response to the pandemic and remote instruction. But they also creatively implement research-based best practices that are likely to have a substantial positive impact on student motivation and learning. SAS OUE has encouraged this shift since the beginning of the pandemic,[8] and will continue to recognize, encourage, and support faculty in implementing more impactful assessment strategies.

Impacts on Learning Outcomes

> *Have there been changes in students' learning outcomes during this period of remote and online instruction? If so, how do you intend to address these changes, either to work to improve any declines that have been detected, or to build upon any improvements noticed?*

The vast majority of SAS departments and major programs reported **no changes, or modest changes, to student learning outcomes attributed to the pandemic**:

8. See, e.g., the resource provided at https://sasoue.rutgers.edu/teaching-learning-guides/remote-exams-assessment, which has received more than 19,000 unique pageviews since being posted in March 2020.



One language program reported substantial changes to students' learning outcomes due to the pandemic, noting that "memorization is a key component of language acquisition, and the difficulty of implementing a memory-based assessment in an online format affected other aspects of the course (such as in-class discussion and oral proficiency) and will likely affect student learning of the language in future semesters." This program plans to restrict its online language course offerings to contexts (such as summer sessions) where smaller enrollments and student self-selection make these challenges more manageable. SAS OUE will also encourage all language programs within SAS to connect and share their experiences and strategies for addressing these challenges in online language acquisition courses.

The changes to student learning outcomes categorized as 'modest' were highly heterogenous. As noted in the discussion of adjustments to learning goals above, Chemistry and Marine and Coastal Sciences modified their lab- or fieldwork-related learning goals in the remote environment. Interestingly, Molecular Biology and Biochemistry persisted in their efforts to develop students' mastery of lab-related skills in the remote environment. The department found that student mastery was significantly impeded:

> To compensate for the lack of laboratory activities during the pandemic, more time was spent in the lecture/discussion sessions going over how to analyze data. To determine if this was an adequate substitute for hand-on activities, the results from similar data analysis exam questions were compared from classes before and during the pandemic.…The lack of hands-on experience in the laboratory significantly reduced their [students'] understanding of the mechanics of the

> experiments and what could go wrong. Equally important, the students did not have a chance to develop the physical and organizational skills that are required to perform many of the procedures in the laboratory.

This observation reinforces the judgment made by several SAS departments that some skills must be developed through hands-on application. All of these programs plan to devote additional time and effort to developing these skills once students return the laboratory or practical setting.

While noting generally positive assessment results, with improvements in student mastery over 2018–19 levels in most areas, the History department did single out a decline in some students' mastery of one learning goal:

> The learning goal with the most need for improvement this year is P2: "The paper shows the ability to read and understand secondary sources written in academic prose and to understand the substance of historiographical debates." The number of students whose performance was "unsatisfactory" with respect to this learning goal doubled, from 5% to 10%. The relative lack of achievement with this goal may reflect the lack of access to physical libraries, librarians, and scholarly works this year. Given the need to do all research remotely during the pandemic, and given the lack of access to certain digital sources and library collections, students may have struggled more than usual to identify and track down historiographical sources. In our assessment meetings, many seminar instructors emphasized the difficulty of doing student research this year.

The History department expects that the reopening of libraries will provide the needed access to sources and collections. In feedback to the department, SAS OUE will also encourage the department to discuss strategies for addressing these concerns with subject-matter librarians.

Several programs noted *improvements* in student learning outcomes this year, which they attributed to a variety of factors.

The Jewish Studies department, for instance, noted that the pandemic had a positive impact on student mastery of their language proficiency learning goals. During the pandemic, the CourseShare program allowed Rutgers students to enroll in online courses in Less Commonly Taught Languages at other BTAA schools. The department reported that, "We had students take Yiddish via the University of Maryland and Hebrew literature courses at the University of Michigan. We were in touch with the instructors throughout, and the students clearly benefited from this additional advantage to remote instruction."

We also wish to call attention to the Computer Science department, which implemented several long-planned curricular reforms to its introductory sequence during the pandemic. Intended to improve student success, these revisions included "(1) course structure revision, (2) introduction of two different tracks…to better support different starting points in CS knowledge, and (3) absolute grading according to learning objectives rather than according to the curve."

The Computer Science department did observe a substantial reduction in DFW rates in the introductory course sequence, which they regard as promising. But because implementation of these reforms overlapped with the pandemic, the department is cautious about interpreting these initial results; they plan to continue monitoring student performance in future semesters.

RUTGERS
School of Arts and Sciences

2020–21 Results[9]

Reports Received

42 of 45 departments or major programs in SAS filed comprehensive assessment reports this year. The SAS Honors Program also filed an assessment report, bringing the total number of reports filed to 43.

The two non-reporting SAS departments are relatively small in size, representing approximately 1.01% of SAS enrollments combined. The SAS Assessment Committee will request that these departments file mid-year reports for the 2021–22 assessment cycle to ensure that their assessment efforts remain on track.

Learning Goals

Rating scale:

Best practices…3.0
Good progress…2.0
Progress slow or stalled…1.0

SAS Average	"Best practices" departments (score ≥2.5)	Learning Goals are:
3	45/45	✓ Clearly defined ✓ Publicly posted ✓ Aligned in hierarchy of university, school, program/department, and course learning goals

All SAS departments and programs have developed and published programmatic learning goals available on department web pages and in the official catalog. All department learning goals align with both University and Core learning goals and ensure that SAS students achieve rigorous disciplinary learning goals in major and minor fields of study (or a single credit-intensive major field of study).

[9] For a summary of 2020–21 results and comparison to 2018–19, see Appendix D. When comparing 2018–19 and 2020–21 results, please note that, in addition to the dramatically different context due to the pandemic, there was also a change in one of the two raters reviewing reports in 2020–21.

Course Syllabi

SAS Average	"Best practices" departments	Course syllabi, synopses, or expanded course descriptions:
2.7	34/45	✓ Include appropriate learning goals
2.5	25/45	✓ Identify where or how the goals are met

Overwhelmingly, SAS syllabi include appropriate learning goals, and syllabi or course synopses with learning goals are made available to students. Reflecting the variety of disciplinary contexts and pedagogical approaches found within SAS, departments and programs vary in the way they map program learning goals onto specific courses or curricular requirements.

Assessment Plan, Structure, and Process

SAS Average	"Best practices" departments	Assessment plan, structure, and process is:
2.2	17/46	✓ Efficient
2.3	18/46	✓ Effective
2.4	22/46	✓ Sustainable
3	46/46	✓ Reviewed annually

SAS departments continue to progress in developing strong assessment plans, structures, and processes. The number of departments rated as having "best practices" in these categories declined somewhat from 2018–19. This largely reflects the impact of the pandemic, which in some departments led to a decrease in faculty engagement, an increased reliance on the Undergraduate Chair, or postponement of department-wide discussion and analysis of assessment reports. Feedback to these departments will emphasize the importance of involving a broad base of faculty in the assessment process, and following through on plans to share, discuss, and act on assessment results.

Our annual reporting system ensures that all department plans are reviewed each year. Next year, as we continue to emphasize faculty engagement with, and use of, assessment practices, we expect to see further increases in the efficiency and effectiveness of departments' plans.

Assessment Tools/Measures

SAS Average	"Best practices" departments	Assessment tools and measures:
2.2	17/46	✓ Include tools and measures appropriate to goals
2.1	18/46	✓ Produces reliable results
2.6	29/46	✓ Produce useful results for improvement

This year saw a modest decline from 2018–19 in the "produces reliable results" category. We interpret this as primarily a reflection of the impact of the pandemic, which introduced a host of confounding factors and obstacles to reliable administration of assessments.

Nonetheless, two-thirds of SAS departments were rated as "best practices" in the highly important "produces useful results for improvement" category. This reflects the fact that many of the investigations carried out this year generated information that, when interpreted by faculty in light of the pandemic context, provides a reasonable basis for taking action to improve student learning. For instance, the Philosophy department examined student writing in advanced 400-level courses. The department noted a decline from 2018–19 in one category: "The paper is easy to read: it employs clear, concise sentences, appropriate word choice, and no recurring grammatical errors." Without attempting to identify the root cause of this decline, the department noted that:

> …the low average reported was due to lapses in basic writing skill (esp. poor grammar), which is not a skill that 400-level courses are aimed at developing. Nonetheless, given how integral these basic writing skills are achieving all four of the program's main learning goals, this provides further reason for us to continue in our efforts to (i) encourage instructors to assign 'scaffolded' exercises…and (ii) encourage instructors at all levels to encourage all students to utilize the Rutgers Writing Centers and other resources.

These action steps—providing scaffolded support and connecting students with resources, even in advanced courses where students are expected to already have developed basic writing skills—are a reasonable response to these findings and are likely to improve student learning, regardless of the root cause of the decline.

Benchmarks/Standards

SAS Average	"Best practices" departments	Benchmarks or standards:
2.0	13/45	✓ Are clearly, specifically defined
2.0	20/45	✓ Appropriately judge mastery of learning goals

SAS departments largely employ rigorous, appropriate, and clearly defined standards. Still, as in 2018–19, this is an area where departments often report less detail than we would like to see. We will revise the form instructions next year to solicit more specific detail (in particular, sample prompts and rubrics) in this area.

Types of Assessments

SAS Average	"Best practices" departments	Types of assessments:
2.5	32/46	✓ At least one direct measure of a primary learning goal
2.5	10/20	✓ Indirect measures of learning goals
2.6	9/13	✓ Grades, if incorporated into assessment, were used appropriately

This category has been significantly expanded since the review conducted in 2018–19 to better reflect the range of assessment activities undertaken within SAS. All SAS departments and programs are expected to engage in direct assessment of student learning. Some departments also utilize indirect assessment methods (e.g., student or instructor surveys) to gain additional insight into student learning. And while the use of grades is typically not recommended for measuring student mastery of primary learning goals, some departments do utilize grades to answer specific assessment questions (e.g., questions about demographic disparities in student learning).

This year, departments that utilized these techniques were rated on the effectiveness of their implementation. The positive results reported above indicate that departments that utilize indirect measures or grades in their assessment activities are doing so in ways that are well-designed to provide useful information about their students or program.

Use of Assessment Results

SAS Average	"Best practices" departments	"Closing the loop" activities include:
2.2	12/46	✓ Process of review and implementation based on assessment results
2.2	15/46	✓ Changes made based on review of results
2.0	2/8	✓ Evidence of improved student learning based on prior implemented changes

SAS departments continue to engage in evidence-based improvements of their instruction.

The SAS Assessment Committee is particularly interested in setting the expectations that (1) departments will engage a broad swath of their faculty in the review and utilization of assessment efforts; (2) departments will clearly explain whether and how their pedagogical and curricular changes are informed by assessment results; and (3) departments will plan a full multi-year cycle of assessing student learning, making changes, and then re-assessing whether those changes have had the desired effect. This year, a number of SAS departments described plans to review their assessment findings and plan interventions in the Fall 2021 semester. SAS OUE staff will make a special point of encouraging departments that do implement changes in 2021–22 to assess the impact of those changes in future assessment reports. Feedback provided to departments on their assessment reports will provide department-specific suggestions for next steps and further assessment strategies.

Learning Goal Maintenance and Updating

SAS Average	"Best practices" departments	Learning goal maintenance includes:
3.0	2/2	✓ Process used to review and update learning goals
3.0	1/1	✓ Learning goals updated in response to new information or requirements

A small number of SAS departments reviewed and updated their learning goals this year. (This count does not include departments reporting temporary adjustments to their learning goals due to the pandemic.) This is unsurprising in the midst of a global pandemic, when many departments were focused on succeeding in their core instructional mission. In general, we do not expect a high rate of revision of learning goals in SAS, where many disciplinary contexts change slowly relative to the annual program assessment cycle.

Summary of Departmental Results

In assessment of student learning outcomes, 10 SAS departments have been designated as using "best practices" for 2020-21:

Asian Languages & Cultures
Cell Biology & Neuroscience
Computer Science
Criminal Justice
French
Genetics
Geography
Italian
Molecular Biology and Biochemistry
Philosophy

It is important to note that these departments were reviewed and designated as "best practices" departments using the same standards, and (with minor adjustments) the same rubrics, as in prior years. These departments engaged in assessment activities that would be laudable in any year. Most other departments made good or very good progress in their assessment efforts this year.

However, several departments or programs either did not submit assessment reports or submitted reports indicating that they engaged in very little assessment this year. The SAS Assessment Committee will request mid-year reports from these departments in the coming year. Given the impact of the pandemic over the past 18 months, these departments will be encouraged to identify reasonable approaches to assessment that are achievable and likely to be useful in supporting departmental efforts to improve undergraduate instruction.

Conclusion

Each year, SAS uses assessment practices as an important tool in maintaining excellence in undergraduate education and promoting a culture of continuous improvement based on evidence. SAS emphasizes sustainable, efficient, and authentic assessments that provide valid practical information which is used to inform decision-making about how to improve student learning outcomes.

The context surrounding the 2020-2021 assessment cycle was, of course, dramatically different from that of previous years. Many of the assessment reports this year clearly reflected the effect of the pandemic on instructional practices, the challenges faced by students and faculty during the year, and the ultimate impact these factors had on students' learning. Departments described a variety of difficulties they encountered due to the pandemic and the remote learning environment, including (among others) the inability to provide adequate hands-on lab experiences; challenges with maintaining academic integrity in the remote environment; and more general concerns about students' (and faculty members') physical and mental well-being and stress levels during the pandemic.

Departments and individual faculty members did a remarkable job of rising to these challenges. Many invested tremendous time and energy in rethinking and redesigning their courses; they reconsidered how their LMS sites were designed (including, for many SAS faculty, moving from Sakai to Canvas); they learned about and enacted best practices for effectively designing and administering remote assessments; and they strived to find ways to maintain a sense of connection with and among physically isolated students. The assessment results reviewed here suggest that these efforts were often successful not just for "getting through" the pandemic-necessitated period of remote instruction, but also as the basis for continued reflection and improvement on pedagogical practices and course design moving forward. Revised assessment strategies and creatively designed assignments for determining students' grades, replacing long lectures with multiple shorter recordings interspersed with opportunities for student engagement, and increased attention to inclusiveness and equity in course design and classroom environments are just a few of the positive outgrowths of the course-related challenges encountered during the pandemic. We are grateful to the vast majority of SAS departments that engaged in meaningful assessment processes during an extraordinarily difficult time. We look forward to working with and supporting departments as they continue to implement changes based on their assessment results and experiences over the past year, and as they further explore ways to design and implement assessment practices that will be productive and useful in promoting student learning and achievement.

Submitted on behalf of the SAS Assessment Committee by

Sharon Bzostek, Associate Dean for Undergraduate Education

David Goldman, Director of Teaching, Learning, and Assessment

SAS Assessment Committee

Geraldine Cochrane, Physics & Astronomy
Linnea Dickson, Psychology
Andy Egan, Philosophy
Mary Emenike, Chemistry & Chemical Biology
Joanne Hunt, Kinesiology & Health
Ron Ransome, Physics & Astronomy
Åsa Rennermalm, Geography
Charles Ruggieri, Physics & Astronomy
Satoru Saito, Asian Languages & Cultures

RUTGERS
School of Arts and Sciences

Appendix A: Program Assessment Form

2020–21 SAS Program Assessment Report

Due 6/15/2021 • Submit via e-mail to *assess-committee@sas.rutgers.edu*

Please see *sasoue.rutgers.edu/program-assessment/guidelines* ***for more information***

We know that this is an unusual and challenging year. For examples of program assessment in the present moment, please see sasoue.rutgers.edu/program-assessment/examples.

Department: _____

Program(s): _____

Submitted by: _____ Date: _____

Assessment Committee Members: _____

Learning Goals

In this space, please list your program's learning goals and provide the url where they are posted on your website.

Changes in Response to Pandemic

In this space, please indicate whether you have changed any of your learning goals or adjusted your expectations for the learning outcomes of your department or program because of your response to the pandemic. If yes, please briefly explain.

Are learning goals on syllabi?

How many department/program syllabi include appropriate learning goal statements? (Select one)

Overwhelming majority | More than half | About half | Less than half

Where are program learning goals achieved?

In this space, please indicate where in your program students achieve mastery of your learning goals: for each goal, identify which course, group of courses, or other curricular requirement most directly supports student mastery of that goal.

What question about student learning did your department investigate this year?

In this space, please state the question about student learning that your department investigated this year.

Your question should be **useful**—answering it should help to inform your department's decisions about curriculum design, instructional practices, student advising, or other factors that impact student learning—and answering it should involve **directly examining student learning**.

The SAS Assessment Committee's first priority is ensuring that assessment provides departments with useful information. For guidelines and examples of useful assessment questions, please visit sasoue.rutgers.edu/program-assessment/guidelines or contact SAS Director of Teaching, Learning, and Assessment David Goldman at dgoldman@sas.rutgers.edu.

What methods did you use to answer your question about student learning?

In this space, please provide a brief overview of the way your department gathered information about student learning to answer the question posed above. Be sure to include a description of the student work that was examined and include any prompts, rubrics, or other instruments that you used.

Findings

In this space, please summarize your findings and your interpretation of your findings.

Please briefly explain how your department has used, or plans to use, the information collected.

In this space, please briefly describe how the assessment results were shared, or will be shared, with the faculty in your department. Then identify your department's next steps and the timeframe during which your department expects to take its next steps.

RUTGERS
School of Arts and Sciences

Appendix B: SAS Departments — Enrollments, Majors, and Minors AY 2020–21

		Enrollment					Class of 2021	
Subject Code	Department/program name	Summer 2020	Fall 2020	Winter 2021	Spring 2021	Total Enrollment	Minors	Majors
013	AMESALL	15	385	0	411	811	2	
074	*Arabic*	0	68	0	53	121	7	
505	*Hindi*	0	36	0	7	43		
014	Africana Studies	119	858	0	852	1829	40	16
050	American Studies	155	630	15	548	1348	16	7
199	*Comparative and Critical Race/Ethnicity*						3	
070	Anthropology	70	1060	0	660	1790	8	9
071	*Anthropology - Evolutionary*						7	7
082	Art History	160	753	29	746	1688	24	23
098	Asian Languages And Cultures	24	214	0	75	313	13	2
165	*Chinese*	61	281	0	292	634	17	8
214	*East Asian Languages and Studies*							2
565	*Japanese*	0	458	0	361	819	30	4
574	*Korean*	45	346	0	336	727	19	4
119	Biological Sciences	654	3850	0	3239	7743	125	440
146	Cell Biology and Neuroscience	267	1634	0	1523	3424		146
160	Chemistry	2762	7044	0	6639	16445	16	43
175	Cinema Studies	24	253	8	189	474	8	19
185	Cognitive Science	84	380	0	655	1119	60	68
190	Classics	185	1032	0	1038	2255	11	6
490/491	*Ancient Greek*	0	13	0	11	24		
580	*Latin*	13	45	0	39	97	1	
195	Comparative Literature	66	443	40	508	1057	2	6
198	Computer Science	947	7117	0	6938	15002	125	741
202	Criminal Justice	162	1141	0	1176	2479		240
220	Economics	915	5641	0	5039	11595	285	468
350	English						41	117
351	*Creative Writing*	57	1185	0	1272	2514	111	
354	*English Film Studies*	21	68	0	30	119		
358	*English Literature*	96	566	0	627	1289		
359	*English Theories And Methods*	113	576	0	445	1134		

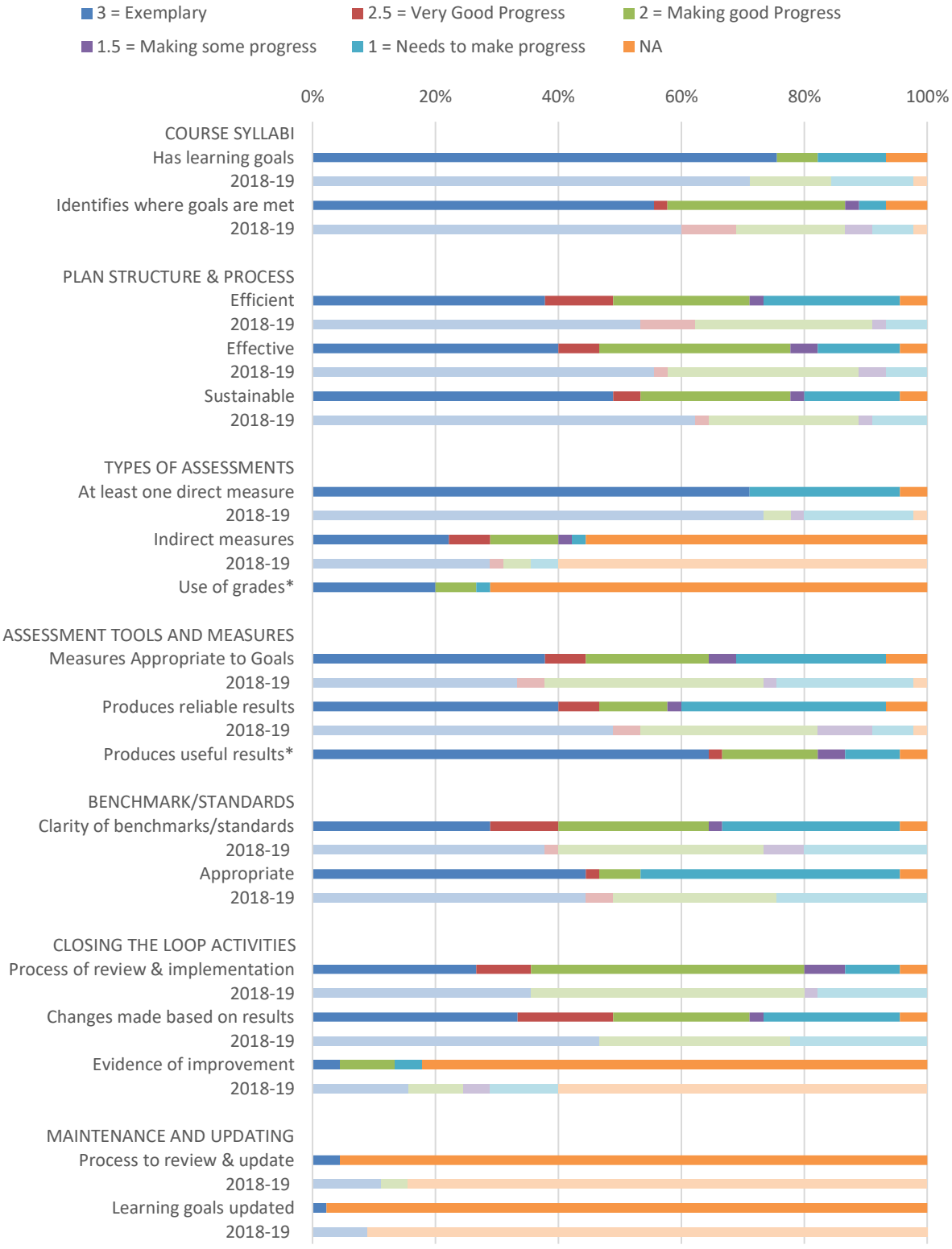
RUTGERS
School of Arts and Sciences

		Enrollment					Class of 2019	
Subject Code	**Department/program name**	**Summer 2018**	**Fall 2018**	**Winter 2019**	**Spring 2019**	**Total Enrollment**	**Minors**	**Majors**
377	Exercise Science (Kinesiology And Health)	464	2427	83	2736	5710		331
955	*Sport Management*	187	619	18	644	1468	41	73
420	French	65	331	1	373	770	25	11
447	Genetics	214	1067	0	1216	2497		60
450	Geography	285	1103	130	1429	2947	11	18
381	*Environmental Studies*	27	112	9	101	249	6	
558	*International And Global Studies*	88	150	16	199	453	20	
460	Geology (Earth And Planetary Science)	331	1563	87	1659	3640	6	5
470	German	16	216	0	348	580	6	10
510	History	52	571	0	454	1077	73	101
506	*History General*	70	621	0	666	1357		
508	*History African, Asian, Latin America*	7	247	0	422	676		
512	*History American*	82	629	23	567	1301		
514	*History/Political Science*							13
560	Italian	62	462	0	513	1037	10	10
563	Jewish Studies	0	149	0	188	337	9	1
590	Latin American Studies	47	62	28	90	227	1	1
595	Latino And Caribbean Studies	23	526	4	508	1061	22	4
615	Linguistics	23	735	0	755	1513	17	46
640	Mathematics	2018	11631	0	8108	21757	181	202
122	*Bio-Mathematics*	0	2	0	2	3		13
685	Middle Eastern Studies	0	78	0	101	179	3	2
694	Molecular Biology & Biochemistry	137	568	0	434	1139		20
713	Organizational Leadership	0	39	0	67	106		
730	Philosophy	455	2474	90	2165	5184	83	60
750	Physics	1261	6416	0	5936	13613	13	50
100	*Astronomy*						2	
105	*Astrophysics*	0	0	0	0	0		14
790	Political Science	537	3458	0	3547	7542	110	227
205	*Critical Intelligence Studies*						50	
830	Psychology	1316	9367	0	9138	19821	628	590

RUTGERS
School of Arts and Sciences

		Enrollment					Class of 2019	
Subject Code	**Department/program name**	**Summer 2018**	**Fall 2018**	**Winter 2019**	**Spring 2019**	**Total Enrollment**	**Minors**	**Majors**
840	Religion	40	901	56	855	1852	22	8
860	Russian	0	158	0	104	262	10	2
078	*Armenian*	0	0	0	0	0		
787	*Polish*	0	9	0	9	18		
920	Sociology	413	2941	0	3409	6763	160	35
204	*Criminology*						80	
502	*Health and Society*						90	
940	Spanish	140	691	0	646	1477	94	19
810	*Portuguese*	0	22	0	21	43	4	0
960	Statistics	633	2812	43	3405	6893	73	80
961	*Statistics - Mathematics*							23
988	Women's, Gender, and Sexuality Studies	310	1594	105	1581	3591	65	18
888	*Sexualities Studies*	3	19	0	17	39	3	
904	*Social Justice*	44	34	0	34	112	8	
438	*Gender and Media*						18	
355	Writing Program	643	9472	51	5063	15229	9	
356	English As A Second Language	5	370	0	316	691		
Programs Not Asked To Report								
016	Center for African Studies	0	0	0	1	1		
360	European Studies	0	11	0	13	24	3	1
489	Modern Greek	0	23	0	28	51	2	
667	Global Medieval Studies	0	5	0	10	15		1
Other SAS Courses								
090	Sas Interdisciplinary	465	5646	0	2967	9078		
556	Sas Interdisciplinary	54	182	11	235	482		
880	Science, Technology, And Society	0	0	0	60	60		
959	Study Abroad	3	18	0	75	96		
991	World Languages	0	214	0	178	392		

Appendix C: Percent of SAS Departments (n=45) at Each Level on Checklist Rubric, 2020-2021 and 2018-2019



** rubric category added in 2020–21*