University of Missouri–St. Louis Academic Program Prioritization Committee 2020 Report to the Campus

FEBRUARY 1, 2021

Introduction

The University of Missouri–St. Louis (UMSL) resumed the Academic Program Prioritization process in the fall of 2020 under the direction of Provost Marie Mora. Provost Mora formed the committee in August 2020 and asked for recommendations from the committee to be completed by the end of the semester. In the simplest terms, the committee's charge was to examine 12 academic programs at UMSL, evaluate how well they had responded to the 2018 Academic Program Prioritization report, and make recommendations for investment, elimination, or alteration to programs based on the overall review. Under the Provost's guidance, the committee used both quantitative and qualitative data to assess programs. As a result of its work, the committee has come to a newfound understanding of the impressive work done by each department in the areas of teaching, research, and community engagement. We see many paths for growth and innovation across the institution and hope that this report will contribute to strengthening our academic programs, improving outcomes for our students, and increasing the pathways to research and economic development throughout the region.

The committee would like to extend our sincere gratitude and appreciation to Provost Mora, Dean Kersten, Dean Womer, Carol Sholy, Christina Cox, and all of the departmental chairs and faculty who actively contributed to this review process and who were vital to the success of this endeavor.

Provost's Charge

Revisiting the process launched in 2017-18, the 2020-21 Academic Program Prioritization (APP) Committee at the University of Missouri – St. Louis will analyze academic programs previously recommended for further review and make recommendations to the Provost that may result in additional resource investments into programs aligned with the institution's strategic areas of growth, strength, and excellence as well as the potential elimination, suspension, or alteration of other programs. The 2020-21 APP process is part of a longer-term institutional strategy for excellence in planning, operations, and stewardship aligned with UMSL's strategic plan. Academic programs that do not undergo review in 2020-21 are expected to be reviewed in the next APP cycle.

Program Prioritization 2020 Campus Report

As noted above, the 2020 committee reviewed only those departments recommended for "further review" in the 2018 report and ones marked for "inactivation" if this recommendation had not been acted on. For the 2020 process, the departments under review are listed below.

Departments Under Review

- 1. Anthropology
- 2. Art & Design
- 3. Chemistry and Biochemistry
- 4. Communication and Media
- 5. Economics
- 6. History

- 7. Mathematics & Statistics
- 8. Music
- 9. Physics & Astronomy
- 10. Political Science
- 11. Psychological Sciences
- 12. Supply Chain & Analytics

Membership

In selecting members for the committee Provost Mora consulted a variety of people and aimed to have the committee structure match the structure of Faculty Senate committee membership. Seeking a mixture of institutional memory and fresh perspectives, she enlisted both members from the previous APP committee and new members. Provost Mora sought a diverse group with experience working with multiple units on campus or serving on campus- or system-level committees, as well as program assessment or administrative experience.

The APP Committee includes nine (9) faculty members representing the Faculty Senate Parallel Units, three (3) subcommittee facilitators/team leads, one (1) faculty member serving as a rotating member, and one (1) Faculty Fellow representing Academic Affairs serving as the Committee Chair.

Faculty Committee Members

- Natalie Bolton, Associate Professor of Educator Preparation and Leadership
- Steven Bruce, Professor of Psychological Sciences; Director, Center for Trauma Recovery; Director, Clinical Psychology Doctoral Program
- Frank Grady, Professor and Chair, Department of English
- Linda Marks, Associate Clinical Professor of Optometry
- Steve Moehrle, Professor and Chair, Department of Accounting
- Natalie Murphy, Associate Dean, College of Nursing
- Wendy Olivas, Associate Professor and Chair, Biology

Program Prioritization 2020 Campus Report

- Uma Segal, Professor, School of Social Work
- Sandra Trapani, Teaching Professor and Chair, Department of Language & Cultural Studies (rotating member)
- Jeanne Zarucchi, Professor, Art History & French

Subcommittee Facilitators/Team Leads

- Michael Bahr, Associate Dean, College of Education
- Michael Elliott, Associate Dean, College of Business Administration
- Birgit Noll, Associate Dean for Undergraduate Studies, College of Arts and Sciences

Committee Chair

• Amber Reinhart, Assistant Vice Provost for Academic Affairs, Associate Chair and Associate Professor of Communication and Media

Guidelines and Principles

The committee first met on August 31, 2020, to receive their charge from Provost Mora. The committee discussed early on how the core mission of their work would be to strategically strengthen UMSL as a land-grant university in the metropolitan St. Louis area. The committee decided to maintain a focus on students first and foremost, both how departments were centered around student success as well as student interest in specific types of programs. Another focus of the committee was the vibrant research each department engaged in and the important interconnected nature of programs across campus. The committee also paid special attention to the ways inclusive excellence and community engagement permeate the work of each department in teaching, research, and service.

Transparency and shared governance were key in how the committee organized our work, and we strove to put the best interests of UMSL ahead of any one program. In an effort to remain impartial, anyone whose department was under review did not participate in the evaluation process of their home unit. The committee also sought feedback from multiple sources as we organized our processes and used multiple data sources before reaching any conclusions. Our meetings were structured so everyone had an opportunity to voice concerns and we strove for consensus when making any large decisions.

Program Prioritization 2020 Campus Report

While not the focus of the committee's work, we could not ignore the difficult circumstances UMSL currently faces where budgetary matters are foremost in the minds of all stakeholders and we are in the midst of unprecedented times given the pandemic. The committee was not given a specific target of cost savings to meet but we were cognizant that overall savings were needed in our current environment. The committee was also sensitive to the fact that program review had to happen now rather than later, despite the difficulty this presented in evaluating the success of departmental initiatives introduced in response to the 2018 APP report.

Data Sources, Interpretation & Limitations

Provost Mora provided the committee with a rubric to help guide the evaluation of each department. Various data sources were associated with each rubric criterion to give a well-rounded picture, and departments under review were informed of five criteria on which their programs would be evaluated. The criteria were linked to components of the UMSL Strategic Plan. These criteria were:

- Student Success and Program Outcomes
- External Demand and Opportunity Analysis
- Research and Creative Works
- Efficiency and Responsiveness
- Internal Demand and Collaboration

Examples of data sources considered for Student Success and Program Outcomes included graduation rates, retention rates, and drop-fail-withdraw (DFW) rates. Data for External Demand and Opportunity Analysis examined the number of majors, student credit hour generation, and labor market analyses from Burning Glass. Research and Creative Works involved grant submissions and funding rates, publications, conferences, performances, and exhibits. Efficiency and Responsiveness measures included margin data, departmental expense, and response to recommendations from the 2018 APP report. Lastly, Internal Demand and Collaboration reviewed connections to other departments, interdisciplinary work, and participation in campus-level initiatives to increase enrollment.

Program Prioritization 2020 Campus Report

The committee used considerable data stored in the UMSL Tableau database. This database, accessible to UMSL faculty and staff via the Academic Affairs website, contained the following data on each department: student credit hours (SCH), degrees, majors, faculty (both tenure/tenure track and non-tenure track), MyVita data (academic program data, conferences, creative works, exhibits, patents), Academic Analytics data (articles, books, citations, conference presentations, grants, awards, academic progression), research funding, and adjusted net margin data. The committee worked closely with the UMSL Institutional Research (IR) Office throughout the process, and at times with the IR office at System as well. Two representatives from the IR office attended a committee meeting to explain detailed information, such as margin data, and they generated additional reports and answered questions whenever the committee requested further information throughout the process.

Although the committee relied on the data as a starting point for their evaluation, there are important limitations to the data that are worth noting. First, the way that margin data are computed can be difficult to interpret. Carol Sholy from IR worked with Karlee Dinehart from UM-System's IR office to create a document that clearly explained how margin data were determined, but even after this helpful document was disseminated to the committee, the committee still had lingering questions and doubts in how to best interpret the results. For example, the formula for calculating campus overhead has apparently changed, which makes it difficult to compare department-level profit-and-loss data from year to year. Moreover, since that campus-level accounting change took place outside departmental control, the committee was wary of relying too heavily on those numbers. The committee did request a more precise version of the margin data that focused more on cost summary data. However, that information was only available for 2019, just the year after the 2018 APP report, and thus too close to any changes made by departments to manifest any meaningful changes. Consequently, this measure was also less than ideal.

The committee was also vigilant about not interpreting data from Academic Analytics without careful input from departments, their deans, and the committee's own knowledge of a discipline's representation, and associated limitations, in this dataset. The committee always assessed data from Academic Analytics after discussion with multiple stakeholders. The assumption regarding limitations of data from Academic Analytics was explicitly considered by the committee during discussions for the formulation of the department recommendations. The

Program Prioritization 2020 Campus Report

committee used the data sources and rubric as a starting point for our discussions and a way to standardize our approach from one department to another.

The rubric served as a particularly helpful guide to deliberations but does not represent a definitive distillation of the committee's assessments. The committee regularly triangulated findings wherever possible and consistently asked follow-up questions in all-group meetings, as well as to any relevant stakeholders. These steps increased the consistency with which the committee formed conclusions about a department and developed recommendations and helped the committee to overcome the limitations commonly associated with the use of a rubric. For example, the rubric weighting of a category may have over-emphasized an area that was not a concern the department was asked to address in the 2018 APP report. When this occurred, the committee focused more on how the department had tackled the recommendations from the 2018 report.

Yet another rubric limitation was that it did not allow for differentiation among programs within one department. For example, a department's scores could change remarkably if the committee focused on the graduation and retention rates of an undergraduate program versus a graduate program. In these instances, the committee gave two scores within the rubric's sub-criterion where appropriate, but used a consensus score as the overall rating for a category. Nevertheless, this carried a possibility of minimizing the impressive work for one department program while understating troubling signs in another program. When this occurred, our recommendations explicitly noted such differences. Furthermore, a rubric score for any single criterion should be interpreted prudently with a degree of caution where noted.

Academic Program Prioritization Process Timeline

August-September. The committee used the previous APP process as a guide and made alterations as needed to increase transparency and campus engagement. After meeting with the Provost to discuss the process, rubric, and data sources, the committee sent out the information on the rubric to the relevant deans and department chairs. The committee also met in September with staff from Institutional Research to get an overview of the data covered in the rubric and created a set of questions, which were shared with chairs, for the departmental interviews.

Program Prioritization 2020 Campus Report

Provost Mora worked with the committee chair, Amber Reinhart, to create a department template for summary reports. Departments submitted a written report highlighting activities associated with the five criteria from the Strategic Plan and discussing departmental efforts to effect changes since the 2018 APP report. At the end of September, committee members were assigned to one of three teams, each of which had four members--one team lead and three committee members. Each team was asked to do a thorough review of four of the twelve departments under review. The teams also met with each respective departmental dean. This meeting, facilitated by the Assistant Vice Provost (committee chair), allowed the dean to provide perspective on how a department had addressed items from the 2018 APP report and to discuss the department's fit with and contributions to the overall college and its mission.

October. The committee chair attended a College of Arts & Sciences Policy meeting to answer questions or hear concerns about the APP process. As a result of that meeting, the committee chair created a Google spreadsheet where department chairs could submit questions or concerns about the Tableau data. Carol Sholy and related personnel from the IR office then responded. Data were compiled in a shared Google Drive for each department, and teams began reviewing all relevant data and summary reports. In early October department chairs submitted their written summary reports, and these provided the committee with a focused description of how and to what degree departments responded to the previous APP report. The reports also connected their activities to the priorities from the updated Strategic Plan and were represented on the rubric.

Committee meetings with departments were held over two weeks in mid-October. Each department was given a list of questions that would be asked during the interview, and each chair was asked to invite up to three colleagues who could best answer the set of interview questions. Departments were also allowed to submit a one-sheet document addressing any lingering concerns or clarifications about the data being used by the committee. These included clarifications on the margin data, 8-week courses, or the number of faculty reported by MyVita/Academic Analytics. The departmental meetings were 90 minutes in length. The committee chair attended all meetings and asked the questions, giving the APP team members an opportunity to listen carefully and ask relevant follow-up questions. The committee found the departmental meetings to be an invaluable step in the APP process because of the clarifications made to the departmental summary report, and once again we wish to express our gratitude to

8

Program Prioritization 2020 Campus Report

the individual departments for their investment in the process. Moreover, each team had an opportunity to hear directly from the department chair and faculty about the changes and activities implemented relative to the 2018 APP recommendations. The team also heard the department's perspective about the 2018 recommendations and the current process. After the departmental meetings, teams wrote meeting summaries available to all committee members to read and reference as needed.

November-December. Deliberation meetings started in November. The committee met in teams and as a full committee to work on reviewing all of the data sources for each department and finalizing each departmental rubric. Departments were given a rubric rating for each criterion, as well as an overall score based on the rubric weighting established by Provost Mora. The team used quantitative data as well as departmental summary reports and dean and department interviews to triangulate findings. It was important to the committee that multiple sources of data were used before drawing any conclusions. In addition, there were multiple questions and requests to IR for more data during this time to ensure the committee fully understood the data being collected and to ensure conclusions drawn from the data were valid.

After all of the rubrics had been initially discussed by the full committee, meetings were used to standardize rubric scores so measures were interpreted comparably across teams. During this part of the process, the committee began to move beyond rubric ratings and engage in developing preliminary recommendations for each program or department. The committee referred back to the original 2018 report when relevant. The committee met numerous times in late November and throughout December to develop final recommendations, ensure they were equitable, and provide specific suggestions departments could enact without additional resources. Our focus was on student success and demand, as well as potential future endeavors that programs could undertake that would increase enrollments, research expenditures, and community engagement.

Departmental Assessment Plans

Upon delivery of final recommendations from the Provost, the committee respectfully recommends each department convene faculty meetings to discuss the recommendations and create departmental assessment plans. The plans should review each recommendation with a

Program Prioritization 2020 Campus Report

measurable outcome and articulate how the department will achieve that outcome. In addition, the plan should identify the explicit timeline for each outcome and what measures will be used to assess progress. We also strongly recommend a department consult its dean and Academic Affairs to obtain approval of the assessment plan prior to its implementation.

The assessment plan will serve several purposes. First, it will provide the department with a clear plan for how to implement and track the APP recommendations. Next, it will provide the dean an overview of the departmental efforts associated with each recommendation that can be monitored over time. Finally, the assessment plan can be integrated into the next iteration of program prioritization and be used by the next APP committee to evaluate each department's progress.

Focused assessment plans with clear expectations would also be a helpful step in integrating an ongoing APP process into the campus's current review structure, which includes departmental five-year reviews, campus accreditation, and professional program accreditation by outside organizations (and thus, inevitably, the prospect of some duplication of effort). Moreover, the committee wishes to acknowledge a pervasive uneasiness among the current twelve departments who were recommended for "further review" in the 2018 APP report. The uneasiness is in part a consequence of the present budget circumstances and the pandemic, but the fact that the earlier report made recommendations but did not generate assessment plans or benchmarks also contributed to fraught feelings this time around. Going forward a concerted effort must be made to widen and routinize a review process that over time involves all departments on campus and to enact a process that is not only cyclical but also feels less high-stakes each time it is undertaken. Assessment plans can help with this by focusing on areas for improvement and clearly communicating to the departments what is expected of them before each review.

Overall Comments on our Recommendations

Except where noted below, the committee recommends continuing admission to all programs. The committee understands that our current fiscal realities mean there are limited resources to invest in programs. However, we also believe that in order to grow enrollments, strategic investments may be prudent. Therefore, in some recommendations, we provided a path if the

Program Prioritization 2020 Campus Report

investment was possible and another path if the investment was not likely to happen. We also mention certain circumstances where strategies such as cluster hires may benefit several departments at once.

Committee Recommendations

1. Psychological Sciences

The department has responded appropriately to the previous APP items, has a strong level of community engagement, and continues to be a popular major across campus. Recent initiatives from the department like AP-CAST and eLearning hold a lot of promise for enrollment and SCH growth.

Committee recommendations:

- Continue to work collaboratively with MIMH colleagues and increase research expenditures.
- Monitor demand for the major for degree programs and continue to grow enrollment in the undergraduate and new paying MA program.
 - Anticipated growth in BA due to eLearning Cohort Year 2 selection and new AP-CAST degree set to be approved in February, as well as an increase in SCH in these areas.

2. Supply Chain & Analytics

The PhD program in Supply Chain Analytics was the only program under review, although the department provided information on the undergraduate and MA certificate programs as well. The department has addressed all of the issues that led to the suspension of the program. It has made the necessary hires to support a vibrant PhD program, and it has put in place the necessary infrastructure to support its PhD students. Key building blocks include finding revenue sources to support PhD students and creating opportunities for PhD students to work at the Supply Chain Risk and Resilience Institute.

- Department could resume admitting PhD students as early as Fall 2021 given financial viability and cohort size and should plan for how to move students from the new MS in Supply Chain degree program into the PhD program.
- Keep a close eye on DFW rates and continue to provide support for students who

Program Prioritization 2020 Campus Report

are struggling. While this is not relevant to the Ph.D. program itself, GTAs may be used to address these issues at the undergraduate level.

- Increase research expenditures by applying for more research grants -- the department has been research-active, but expenditures have been low and no recent applications for grant funding have been made.
- The department does not seem to be engaged in collaborative efforts on our campus; we strongly recommend reaching out to other departments such as Computer Science, Mathematics, and Economics to explore possible course sharing and broader participation in campus-wide initiatives such as interdisciplinary programs.

3. Communication & Media

The department has done an especially good job in responding to CAP and streamlining the curriculum, ensuring course quality, and cutting its DFW rate. The addition of both a 3+2 program and an online BA (in the first eLearning cohort) are logical steps to arrest the declines in SCH and majors. The committee commends the department for their leadership and work in online offerings.

Committee recommendations:

- Even considering the shrinking of the Media Studies portion of the department, the decline in majors and SCH in recent years is very concerning—above college/campus averages--as are the low/variable retention and graduation rates for FTC students. Ongoing attention needs to be paid to these issues and alternative plans need to be created if the above areas do not lead to increased enrollment.
- Increase enrollment in the MA program, which the department suggests (and we agree) could double in size.
- Though generally strong in research productivity, the department could improve its research expenditures (i.e., produce more grant activity), perhaps through collaboration with the campus ORA and by foregrounding the interdisciplinary focus of the department's work.

4. History

The department has diligently addressed the comments from the 2018 reports and meets or exceeds expectations in all five rubric criteria. The department has used CAP to streamline its curriculum and to eliminate any roadblocks where possible. Museum Studies is a respected program that merits continuous investment.

Committee recommendations:

• The department should monitor outcomes of the steps it has taken to improve

retention rates and keep an eye on DFW rates as these are high in different undergraduate courses each semester.

- The department should also pay close attention to the decline in numbers of MA students and work to increase those numbers.
- The department should increase research productivity and expenditures with increased grant applications.
- Areas for growth could include the new African American and African Diaspora Studies program (now in the proposal stage) and the Latinx program that is under discussion. Collaborative hires in these areas, as well as Data Science or Digital Humanities, would be desirable.

5. Chemistry & Biochemistry

The department has been very responsive to the items in the previous report and is actively working to improve enrollment and retention through multiple strategies. The department produces a high number of SCHs and has a steady number of majors. There are strong connections with Biology and the successful joint BCBT program, and the department is tailoring future growth in response to market needs. Research is strong, and many publications involve undergraduate and/or graduate students. The Department has overall made several changes to improve enrollment and retention, though it is too soon to know if the initiatives are working. We think the department is on a positive trajectory but should be re-evaluated in a streamlined process to ensure improvements.

- Continue steps to recruit more non-thesis Master's students and students for the proposed Certificates (involving specific market need for Analytical Chemistry); these steps include activities by the new Associate Chair of the Department and new Industrial Advisory Board.
- Ensure that all faculty (including non-research active faculty) are following the workload policy of the department and campus.
- Continue to streamline the curriculum (such as offering courses less often and fewer sections), particularly in upper-level and graduate courses, to reduce the number of low enrollment courses.
- Increase support for Chem 1111 to realize the strong recruitment potential for Chemistry majors
- The Chemistry Department was not allowed to admit new PhD students this last year. However, we recommended that they be allowed to admit PhD students moving forward in the next cycle. The research performed by most faculty in the department is lab-based and labor-intensive, and is highly dependent on graduate students performing the lab experiments. High research performance cannot be

expected of the faculty without PhD students. In addition, the graduate students are essential as teaching assistants for the many undergraduate teaching labs. Finally, new PhD students are not cohort-based in terms of courses. Instead, the students take courses at various times over their first few years depending on their area of interest, and the courses are taught in conjunction with the Chemistry and BCBT Masters students.

6. Mathematics & Statistics

The department contributes many courses necessary for degrees across campus, and its SCH production, though declining somewhat in recent years, is also very high. Career projections for math-related jobs are very strong over the next decade and data science, both at the undergraduate and graduate levels, demonstrates strong growth potential for the department.

- Data science has great promise, but more clarity should be supplied on how the current emphasis area for the Master's program and the proposed BA degree will complement each other, and more detail on how the department will recruit new students is needed.
- Department needs to create more expertise in specific areas such as predictive analytics, modeling, and data visualization.
- The committee was concerned the department had no substantive plans for who will be the next chair. Some alternatives discussed include recruiting an external department chair or finding a dynamic leader within A&S but outside of the department. The department should also consider NTT faculty in leadership positions to better support the General Education program.
- Goal from previous APP report that is still relevant today: Convert some adjunct faculty to NTT positions to improve student retention in math courses.
- GTAs should be appropriately distributed between Math & Computer Science and all Math GTAs need more substantive training and guidance to be successful when teaching.
- Need to finish CAP.
- Some senior math faculty are not producing research at the expected level. One option is for them to teach more, thus alleviating the load of productive early-career faculty. Also, the department should insist that mid-and later-career faculty both mentor GTAs in course preparation and student success strategies, as well as teach both lower-level and upper-level courses.
- The review committee recommends the department eliminate the PhD in Math if it cannot increase graduates and external funding. (Careful consideration is needed here because this degree is connected to Computer Science.)

- The department needs to be proactive in enrolling and retaining students in all courses, as well as math majors. Faculty should engage students (via "math club", invited alumni who work in applied math fields, math games/competitions), and refine the curriculum by providing degree paths that are less restrictive. For instance, the program should help students avoid subdisciplines (e.g., statistics) that may not interest them.
- Retaining students and making math accessible to all students needs to be a priority for all of the faculty in the department. We respectfully think a focus on equity and inclusion for all students needs to be core to the mission of this department.
- Faculty should work closely with career services to identify and promote career paths for graduates. Also, math faculty should mentor students who go into graduate programs (e.g., PhD/MA in math, applied math, or biostatics), teaching careers (Masters in education), or related fields (computer science or applied math).
- The department should follow up with fund-raising initiatives with companies such as Bayer, Mastercard, etc. with the potential to provide scholarship opportunities for future data scientists.

7. Art & Design

The department was an early adopter of CAP with goals to modernize the program and increase enrollment. Since the last program prioritization process, they have taken direct actions to meet the needs and interests of students and worked with community partners to determine specific areas for growth. The first-time Game Design course offered in fall 2020 has been very successful. They have streamlined the BFA major and its three emphasis areas, allowing greater flexibility for students with a more efficient path to graduation. There has been a department-wide shift toward professional and commercial practices in addition to new course offerings, which have enhanced student success and increased focus on diversity and inclusive excellence. Both full professors and NTT faculty are actively involved in research with diversity initiatives related to the aged, LGBTQ, class, gender, race, immigration, and ableness. We commend the department for their efforts thus far. As it will take some time to determine if the new direction attracts and retains students, additional resources may be necessary as the reinvention of the department evolves.

- Provide a timeline for achieving accreditation within the next 2 years.
 - If pursuing accreditation, begin embedding content and assessments into the curriculum now and build toward eventual accreditation.
 - If not achievable within a 2-year time frame due to faculty hires or other impediments, prioritize time and resources into strengths and student interests instead (such as game design).

Program Prioritization 2020 Campus Report

- Continue steps to increase interdisciplinary connections (such as with engineering and computer science for game design/design thinking, data visualization).
- The removal of Gallery 210 compromises efforts in the department; it is time to rethink space and how this can be used in interdisciplinary ways, perhaps through the development of a creative hub where artists, musicians, and computer scientists can collaborate. The Department and College must continue to think of space footprint and ways to reduce overall space.
- Gen Ed courses went online this fall and allowed increased student enrollments; continue these types of offerings to increase overall enrollment in the most popular courses.
- Overall, the department cannot be expected to grow without investment/collaboration.
 - Invest in helping to increase class sizes for in-demand courses that are currently limited due to equipment (such as computers for graphic design courses or bring those courses online and monitor student demand).

8. Music

The faculty of the department have an outstanding record of research and creative works, with an extremely strong record of performances that have received national and international recognition. Faculty and students are active in community engagement through music performances, workshops, and outreach activities.

- The department needs to provide advising focused on degree completion in order to graduate their majors before they have exceeded the limits of their financial aid.
- The department needs to increase its offering of General Education courses in subjects with wide student appeal.
- Timely completion of the CAP process is critical in order to enable the department to make its curriculum more focused, up-to-date, and cost-effective. (These first three recommendations should contribute to a necessary improvement in departmental margin data.)
- The department should explore interdisciplinary curriculum initiatives with other units on campus, such as the development of a Bachelor of Liberal Studies or Bachelor of Interdisciplinary Studies in collaboration with the Department of Art & Design. Such a program may be a good fit for an online degree.
- Faculty currently engage in a commendable number of recruitment activities, but it is unclear whether or not this results in more students coming to study at UMSL. The effectiveness of recruitment activities needs to be analyzed, and efforts may need to be redirected to achieve a higher rate of return.
- Assessment plans should be implemented and monitored to ensure success in the

new "Teach in 12" and Jazz Studies programs. [Note: The assessment plan and outcome data for Teach in 12 are available by contacting the Office of Educator Preparation and Accreditation in the College of Education.]

• The department has been disadvantaged by ongoing issues with physical space and facilities. Planned renovations in the Arts Administration Building and the recent deactivation of Gallery 210 present an opportunity for those spaces to be shared collaboratively by Music and Art & Design. The department should also explore the possibility of using space in other areas of campus, such as the Touhill Center. This would significantly enhance the quality of the students' academic experience and would allow the building to remain in active use.

9. Anthropology

The Department of Anthropology is very successful at retaining and graduating its students. For example, the 6-year graduation rates for the past three years are in the high 80% range. The Department provides a significant contribution to general education and, more broadly, service courses. The faculty have strong research credentials, actively disseminate their work through publications and presentations, and are internationally recognized. The faculty also do a laudable job of engaging undergraduate students in research.

Although the Department does many things well, it is currently relying on the chair's endowment to support faculty (in Greek studies courses that at times have low enrollment) and on emeritus faculty to teach a number of courses. Neither of these appears to be a sustainable practice. Moreover, the department has a low number of majors-- which is consistent with workforce estimates in the discipline. Burning Glass suggests the field will grow modestly in the next decade at 6.70%, but this translates into approximately 6,000 jobs over the next ten years.

- Eliminate the major and assimilate faculty into other academic departments.
 - Examine current cross-listed courses as potential guides to faculty homes.
 - Eliminate major but retain the minor and the certificate as interdisciplinary options. Retain the high enrollment courses, which allow sustainability for the minor and possibly the certificate. This may require some revisions to the minor and certificate.
 - Retain strong general education contributions by Anthropology faculty.
 - Given the scope of these revisions, revisit the CAP process to assist with curricular realignments.
 - This permits Anthropology (a) to continue to serve the many students it currently does (b) to incorporate an Anthropology minor or emphasis within a bachelor's degree (e.g., BLS).
- Additional Recommendations

- Explore other avenues for funding of scholarships to support students. Use of funds from an endowed professorship are obviously limited.
- Consider exploring a financial investment for the internal demand for Gen Ed courses (e.g., perhaps more adjunct funding), concentrating on areas that will generate the highest revenue from general education courses.

10. Economics

Of note, this department is essential to the university as it provides a number of general education classes needed to support other departments. The faculty are productive in relation to research and creative works. The department successfully launched an undergraduate program in Actuarial Sciences that is performing well and they are currently working on a proposal for Data Science Analytics that also shows a lot of potential.

Prior recommendations were to increase enrollment. Unfortunately, the graduate program continues to have low enrollment. This may be related to changes in workforce needs.

Committee recommendations:

- With job growth projections for general economic positions low, the committee recommends that the graduate program be thoroughly reimagined to meet evolving workforce needs. With job demands for analysts and data science growing quickly, reorienting the graduate programs offered to focus on actuarial and data analysis and data science has merit. A consultant may be warranted to assist the department to develop an action plan and the CAP process can also be utilized in efforts to remake the graduate program.
- Explore additional collaborations with other departments and colleges, such as Business and Finance, to continue developing new interdisciplinary undergraduate and graduate degree options or course-sharing opportunities.
- The department would benefit if it shifts and embraces eLearning. That stated, the committee recommends that the collaboration with S&T on a general economics graduate program be halted. Demand for this type of program remains low. eLearning initiatives should focus on the areas of growth discussed above.
- Increase research expenditures through increased grant applications.

11. Physics & Astronomy

Research-active faculty members in Physics have been successful in applying for and receiving large NSF and other prestigious grants to support their own research as well as, in some cases, their graduate students. One student recently received the NASA

Earth and Space Sciences Graduate Fellowship, a highly competitive award that provided \$120,000 to support him for three years. He then secured a postdoctoral position at the NASA Goddard Space Flight Center working with Dr. Stefanie Milam on comets using the Atacama Large Millimeter Array, the largest and most sensitive radio astronomy facility in the world. The department's research-active faculty are also involved in collaborative research at the campus level, as well as nationally and internationally.

Physics is essential to the mission of the university and supports other programs, especially Engineering, Biology, Chemistry, and General Education. Physics is also important for grant proposals in Education.

Although the department used the CAP process to streamline its undergraduate program, significant challenges remain. The department reduced the number of available emphasis areas for the major from 5 to 4, but this still seems high given the reduced number of TT faculty in the department (6 TT) and the very low number of majors. Integrating SIs and GTAs into the foundational Physics courses, introducing Pearson Lab, and revising the Windows on Physics course are all helpful steps, but at this time, the number of majors continues to decrease. Numbers are also low at the graduate level.

Also problematic is the fact that most of the work of operating the department (including recruitment efforts) falls on a small number of faculty. The department is not sustainable in its current form.

According to Burning Glass, the field will grow modestly over the next 10 years: 8.33% at the Undergraduate level, 8.33% at the Master's level, and 9.41% at the PhD level.

Recommendations and scenarios:

- Eliminate the Physics major but retain the minor. This would allow for Physics courses that are required for other science majors to remain. Also, retain General Education courses offered through Physics.
- Combine Math and Physics into a new department of Physics, Mathematics, and Astronomy. (Departments at comparable universities have a similar structure that UMSL may want to explore). This could help two departments that are currently struggling as the combined department could perhaps play a significant role in campus-wide efforts in areas such as Data Science. If we were to follow this model, a Physics emphasis area could remain under a newly created department of Physics, Math, and Astronomy.
- Eliminate the MA and PhD programs in Physics -- they are currently the smallest MA and PhD programs in CAS (5 & 8 respectively) but seem very costly.

- Explore whether collaboration with S&T might allow UMSL students to enroll in the PhD program at S&T. Student work in labs would be supervised by UMSL faculty on our campus and this would allow research-active faculty to continue their research.
- Graduate students currently teach all of the undergraduate labs for the foundational Physics courses. As they complete their degrees, and if graduate programs are phased out, the university will need to find faculty to teach the undergraduate labs.
- If any of the above scenarios occur (or combinations of the above), it will be critically important to:
 - Find research homes for the highly productive research faculty, perhaps via an affiliate appointment (in Biology, for example), and ensure that they can attract PhD students for the continued success of their research programs.
 - As retirements occur, we encourage the unit to seek efficiencies in the delivery of its ongoing curriculum by appointing NTT faculty with experience/skills in re-designing and teaching foundational undergraduate courses in Physics that are vital to recruitment and retention in all Math and Science programs supported by these courses.'

12. Political Science

At the undergraduate level, the department has taken key steps to address the many action items from the 2018 report. The committee noted improved retention numbers and an increase in the number of majors. The committee also commends the department on the seamless integration of the MPPA program.

However, for the PhD program, many of the concerns from the 2018 report remain.

- Graduation rates for PhD students remain very low and are extremely concerning (for both part-time and full-time graduate students). There are several graduate students who have been in the program for 12 years or longer and many students who are going well over the 60 hours needed for the degree program.
- Some graduate courses have high DFW rates.
- The number of graduate students (around 43 PhD students and 53 MA students) seems very high considering the decrease in graduate faculty (currently 10 tenured or TT faculty, 2 of whom are newly hired assistant professors).
- Margin data remains highly problematic at the graduate level.

Due to these persisting concerns, especially the low graduation rates, the department must consider significant measures for its PhD program.



- Suspend admitting all new PhD students since a) the overall graduation rate is poor; and b) the time to completion of the program is exceedingly long. New Ph.D. students should not be admitted until the existing Ph.D. students have completed the program or are close to completion and until the faculty-student ratio becomes more sustainable
- When Ph.D. students are admitted in the future, reduce the overall number. Currently, there is an extraordinarily high and untenable number of Ph.D. students, particularly in light of the lower number of departmental faculty who can provide sufficient mentorship.
- Use the CAP process to address future plans for the PhD program
- Re-review the Ph.D. program at the next APP to evaluate the progress of existing Ph.D. students.
- Long-term considerations include shifting the focus of the program from Theory to Methodology; CAP realignment of the degree program; clear pathways from MPPA to PhD
- Overall, while faculty are research active, research expenditures seem low. We recommend increasing grant applications and publications.