Proposal for Academic Program Sustainability Program (UPAC Subcommittee, Summer–Fall 2024)

I. Program Sustainability and Institutional Effectiveness

Institutional effectiveness planning can be defined as a higher education institution's effort to organize evaluation, assessment, and improvement initiatives so the institution can determine how well it is fulfilling its mission and achieving its goals[1]. NMSU's mission is to serve the diverse needs of the state through comprehensive programs of education, research, extension and outreach, and public service. Its educational programs provide a well-prepared workforce while enhancing social mobility and supporting a strong state and regional economy and vibrant culture. The sustainability of NMSU's portfolio of educational programs means that the institution can balance its resources effectively so that all degree programs being offered are productive in graduating well-prepared students as defined by target program outcomes. It also entails the ability to adapt curricula and pedagogy to align individual program outcomes with student demand and interest on the one hand and with workforce needs on the other. This requires resilience and flexibility to fluctuations in resources and student interests, which in turn requires understanding how educational programs support one another to achieve target outcomes. Programmatic sustainability implies a correlation between curricular resources for the operation of each unit and the numbers of students served either directly through academic programs administered by the unit or more broadly through all courses taught by the unit, acknowledging a limit on the number of separate programs that an institution of a given scale can sustain. *The following paragraphs outline some strategies and data that can inform actions, and that can be managed through Academic Program Review and other processes to enhance program sustainability and thereby institutional effectiveness.*

Enrollment targets

New bachelor's degree programs require approval by the New Mexico Higher Education Department (NMHED) while new graduate degree programs require approval by the New Mexico Council of Graduate Deans and the New Mexico Board of Finance, in addition to NMHED. New programs are expected to improve NMSU's overall ability to fulfill its mission. Beyond a solid conceptual mapping between learning outcomes at the course and program levels, proposals for new degree programs require evidence of student demand, capacity to offer the curriculum efficiently, and ability to provide a highly prepared workforce in the state and region. Unless new resources are requested explicitly, it is assumed that the unit has the capacity to support the target enrollments. Proposals also need to describe how the institution will support enrollment, completion, and other program objectives well into the future, including necessary resources if enrollment grows beyond the proposed target. This is generally done through NMSU's regular review processes. In part, these reviews quantify the enrollments necessary to offer required courses that serve program objectives with sufficient regularity. While The State of New Mexico seeks assurance of sustainability of academic programs offered at its Institutions of Higher Education (IHEs), so far, The State of New Mexico does not have a legislatively mandated process to ensure that academic programs are sustainable, as measured by some combination of degree completion and cost factors, as many states in the U.S. do.

Considered in isolation, the sustainability of a program is a simple numbers game involving the number of students enrolled in the program at each level and instructors who can teach each course required for the program. Courses *required* for a bachelor's degree should be offered at least once a year. Ten or more students need to enroll in order to count a course as meeting part of the instructor's load according to

[1] https://www.scup.org/planning-type/institutional-effectiveness-planning/

departmental workload requirements (ARP 6.61). This suggests that, in isolation, a minimum of ten students should also be moving through and completing the bachelor's degree requirements each year when a minimal number of elective courses are offered.

In reality, enrollment thresholds for small classes often are met through a variety of measures including cross-listing (concurrent meeting under different prefixes) and dual numbering (e.g., a 400-level and 500-level section with different requirements for student work meeting together)[2]. Programs may also benefit from enrollments in its courses by students in affiliated majors. When this occurs for a range of courses in a small (i.e., low enrolling) major, the net Student Credit Hours (SCH) for the program might be comparable to that of another more siloed program that enrolls more majors. Conversely, large enrollment programs do not always have the faculty resources or physical spaces necessary to accommodate the learning needs of every student in the major. Beyond providing valuable breadth of skills, allowing related coursework taught by affiliated disciplines to count towards degree requirements can help sustain enrollments in large programs. Understanding these cross-disciplinary mechanisms to attain healthy enrollments at the course level is important for understanding sustainability, especially for smaller programs.

Measuring Contribution of a Program to NMSU's Mission: Academic Planning and Other Mechanisms

NMSU's Academic Planning process is aligned with the annual performance review and annual budget processes of the academic colleges. Standard data sets are provided to academic departments to be used in planning the allocation of current resources and justifying replacing or adding new resources. Academic colleges are expected to support opportunities for improvement and growth that fulfill the mission of the institution. Doing so can require shifting resources from one unit to another. In extreme cases it can mean combining different units. The statistics used for this exercise are superficial and include numbers of degrees and minors awarded under each program offered by the department per year; numbers of students enrolled in each program and retention rates; numbers of SCH generated, (Main and Global, general education vs other, and by schedule type), DFW trends, and listings of faculty, including adjuncts (but not GAs) and staff.

Academic Program Review is a mechanism for a more thorough diagnosis of strengths and opportunities for academic programs through assessment of course and program learning outcomes. Such review is confined to individual academic departments and may consider the context of national trends in the discipline. Quality assurance for General Education (Areas I–VI) and Viewing a Wider World is addressed through periodic certification of each course by NMSU's General Education Course Certification Committee (GECCC). At the same time, outcomes are assessed broadly for each area by NMSU's Committee for the Assessment of Student Learning in General Education (CASL-GE).

Because these processes for planning and assessment and review of academic programs emphasize separate programs and courses, there is a tendency to focus on gaps caused by lack of or competition for resources. Such concerns can result in failure to recognize that fundamental workforce skills can often be developed in other ways. Placing more emphasis on how academic programs are adapting to serve broader learning needs should also serve the interests of program sustainability. For example, articulating how learning outcomes for a specific course align with desired bachelor outcomes for other programs can

[2] Dual numbering too many courses is undesirable for accreditation. Cross listing under different prefixes also is not necessary if the course outside the prefix of the major is allowed to satisfy a program requirement. Cross listing does make sense, though, when there is a concrete plan for the course to be taught in alternating instances by faculty in different departments.

justify the use of that course to check boxes required for other programs. This is not currently a consideration in the review of academic programs. For academic planning, this programmatic evidence can be complemented by economic data, relating instructional cost to SCH/tuition generation.

In addition to addressing course curriculum broadly in the context of the collection of programs that each course serves, academic planning, department review, and other institutional measurements might also consider the following data that can inform a program's contribution to NMSU's mission, beyond its own graduates. Such data could be provided as part of the academic planning process.

- Program economics data with standard settings for all programs to gauge economic impact of program (e.g., *Gray Decision Intelligence* (Gray DI) data from its *PES Economics* app)

- Gray DI data from its *PES+ Markets* (Program Competitors) app with standard settings for all programs to gauge enrollment relative to similar programs in the region

- CIP/SOC mapping with regional and national job market and compensation data for associated SOCs (e.g., Gray DI job posting insights)

- Data on alumni careers for a fixed number of years after graduation (e.g., *SteppingBlocks* data).

Some strategies for sustainability

The mechanisms outlined above are particularly pertinent to programs that enroll relatively small numbers of majors. In such cases both annual planning and program review should document detailed action plans for sustainability. A separate process for programs designated as low yield is outlined below. First, some strategies that can be addressed in program review are suggested.

Enrollment Strategies

The enrollment strategies outlined below are curriculum based and can be categorized as program-level (recruitment) strategies or course-level strategies.

Recruiting. A sound institutional strategy is to recruit students who would not come to NMSU to study anyway. This can be done by marketing programs that are unique in the region or are recognized as outstanding through national rankings. Students may choose areas of study that are popularized in the media or are deemed as leading to lucrative careers. Conversely, a student tends not to choose a program they know nothing about, but might choose a course out of curiosity, especially if it intends to study questions the student cares about. For programs experiencing declining enrollment, such courses can be a vehicle to engage undecided students and outline paths in the program that might serve such students' long-term interests, or to encourage others to minor in the subject. A related mechanism is for academic colleges to offer low credit classes that educate students about different majors in the college and affiliated careers and pathways.

Marketing the degree. NMSU should consider introducing a new degree program when existing faculty expertise is a good fit for an emerging area of growth in workforce needs. Adding or shifting resources to support advanced degrees can match rising expectations in workforce preparation, e.g., if a master's degree in a subject replaces a bachelor's as expected training for entry or advancement in an anticipated career (e.g., audiology, physical therapy). In some cases, changing the title of a degree program can help signal its purpose better. For example, Howard University recently renamed its English Department as the Department of Literature and Writing. Renaming courses can also be beneficial, although changing lower division courses requires NMHED approval. Beyond naming, restructuring curricula can be beneficial both for recruitment and retention when combined with a marketing plan that signals preparation for attractive careers. Restructuring classes can also ensure that they teach course content that is rapidly changing. In such cases, national professional society guidance is usually available.

Retention Strategies

Retention in a four-year degree program means not just first-year retention but also progression at each level with special attention to markers that strongly correlate with degree completion. Academic programs should also pay attention to patterns of changes into and out of the major, including potential causes and what the change means for the success of the student.

Orientation to the program and careers. This strategy is pertinent to larger, general degree programs that can support specializations aligned with different career paths. It can be appropriate for a low (e.g., one) credit class suitable for students at an introductory level. It can provide a glimpse of topics covered later in the curriculum and discuss coursework and other experiences particularly relevant for different careers in the field. While students in smaller programs can also benefit from such direction, smaller programs sometimes afford more personalized experiences, such as engagement with faculty and guest lectures by alumni or other professionals working in the field.

Cooperative curricula. Small programs may have difficulty satisfying enrollment thresholds in required classes. Large programs are not always able to offer enough seats at different times to keep all students on track. Large and small programs should team up to balance enrollment when feasible. Often, different programs offer complementary expertise in ways that can benefit students in separate programs. For example, climate science can inform climate policy and vice versa.

Frequency and Scheduling. Departments should post as far into the future as possible those semesters when each course is scheduled to be offered. When possible, it is helpful also to list anticipated meeting times at least a full semester in advance so that students can plan for a full year. For courses that are enrolled by other majors, checking in to avoid conflicts is helpful.

Peer mentoring and alumni engagement. These provide students with opportunities to envision where they will be in the near future and further down the road. Forms of engagement can vary from instructional support to mentoring.

II. Ideas to help low-yield programs to become sustainable

One reason to include a review of program sustainability in academic program review is to support quality assurance for ongoing accreditation. However, a review of sustainability alone is insufficient to assure the New Mexico Higher Education Department (NMHED) that each of NMSUs academic programs satisfies the needs of the state and region by supplying a prepared workforce. Several states in the U.S. have a legislated statewide process to ensure that degree programs at its public Institutions of Higher Education (IHEs) are *productive* in the sense of producing a steady stream of graduates. The term *low yield* is often applied to unproductive programs. These legislated processes mandate a threshold for numbers of completions, or enrollment at the campus level, averaged over a fixed time window, required for an academic program to continue to operate. Typically, when completions or enrollments fall below the threshold, the program is put in a review status for a fixed period after which a decision to continue or discontinue the program is made and reported to the state legislature. New Mexico does not have a legislative process to review academic programs for productivity. Nevertheless, setting internal productivity criteria that are evaluated annually and integrated with program sustainability review will help to guide NMSU in decisions about resource allocation. Such criteria may not apply in situations governed by ARP 7.65.

To be consistent with national norms, an institutional process should include these components:

1. A procedure to review each academic program's enrollment and completions and an invitation to the unit to work with relevant deans to enhance program sustainability,
2. In cases of low productivity, a procedure for the unit to submit an action plan to help the program become sustainable,

3. A procedure to evaluate the plan and monitor progress for a fixed period of time,
4. A decision whether to continue, consolidate, or discontinue[3] (teach out) programs that do not have a path towards sustainability.

Implementation of such a plan will be outlined below.

Productivity criteria

Productivity threshold criteria should be applied at the institution level, and thus be simple. The criteria listed below currently are proposed for the Las Cruces (Main) campus only and take into account rules listed by states that have legislated processes, NMSU's Main campus scale in terms of total undergraduate and graduate enrollments, and its guidelines for enrollment requirements to run regular main campus classes (i.e., ten students). Based on these factors it is recommended that the following criteria be used to designate a program as being low yield for NMSU Main campus:[4]

Bachelor's programs: 15 or fewer completions over a three-year window AND enrolled headcount <30[5]
Master's programs: 10 or fewer completions over a three-year window AND enrolled headcount < 10[5]
Doctoral programs: three-year gap of no awards AND enrolled headcount < 5

Feedback from department heads[6] suggest the following clarifications of these criteria:

1. Enrollment and completions for programs at the same degree level under the same CIP code (e.g., BA+BS) be added before applying the criteria
2. In cases where a student has declared more than one major or earned multiple credentials at the same level, the majors and credentials be counted for the applicable programs.[7]
3. Enrollment and completions for a program offered under both the Las Cruces (Main) campus and the NMSU Global campus manged by the same unit be added before applying the criteria

In each case, it is recommended that new programs be exempt from such review for a period of N+1 years where N is expected time to degree for the institution (six years for bachelor's programs, three for master's). In addition, initial review should only require a response in the absence of a trend in enrollments that indicates the enrollment threshold will be met soon.

Doctoral programs broadly support the scholarship needed for NMSU to maintain its Carnegie research designation. Discontinuing such a program is undesirable. Not meeting the suggested doctoral thresholds might trigger review of the unit's instructional load (reduced load for doctoral supervision).

Statewide policies on low-yield programs add enrollments or completions for different programs under the same CIP code (e.g., BA+BS) before applying a threshold. Such policies tend not to address academic

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[3] A fourth alternative to suspend a program until necessary resources are available is also possible.

[4] These criteria are intended to trigger further review, and not to be the sole factor in whether to discontinue a program. Other factors should include the size of the unit. Conversely, budgetary concerns could force a decision without a full review. Thresholds listed were not universally agreed by the UPAC subcommittee. However, only two units were below the Bachelor award threshold based on 2021-2023 completions.

[5] Because of fluctuation, enrolled headcount threshold should also be based on an average, say three years. A headcount threshold of 30 for a bachelor's program is based on a hypothesis that, on average, the number of completions over three years is about half of the headcount averaged over three years.

[6] Feedback from academic department heads was obtained during a "Department Head Academy" meeting of all main campus department heads on July 15, 2025

[7] At the bachelor's level approximately 10-15% of students declare multiple majors.

units offering multiple majors under different CIP codes (e.g., CHEM BA+BS 40.0501; BCHE BS 26.0202)[8]. In cases of low yield, total award production can be addressed in academic unit plans.

Academic unit actions on low-yield programs

The following are actions an academic unit can take to manage circumstances of a low-yield program.
1. Request to suspend, discontinue, or consolidate the program.
2. Submit a plan of specific actions to be implemented for fixed duration to reach adequate yield.
3. Request exception to the low-yield criteria to allow the program to continue as is for a fixed duration.

In most cases, low-yield should be addressed through an action plan towards program sustainability addressing specific, realistic actions, explaining their anticipated impact, with implementation having a fixed end date aligned with the Academic Program Review (APR) cycle. Actions should address sustainability of the program in the context of other programs the unit serves and could include enhanced, targeted recruitment efforts, fundraising, curricular modifications, or other actions. While increasing enrollment and awarding of degrees are the nominal goals, the action plan should address in broader terms the role of the program and unit in fulfilling the academic mission of the institution. That is why the action plan should be aligned with academic program review which also addresses cost efficiency and resources. If the plan requests resources, it must provide data linking loss of resources to decline in enrollments and explain why an investment will result in increased productivity. For low-yield interdisciplinary programs offered through multiple units, the action plan should address complementary roles of the relevant units.

Academic units should seek guidance in preparing action plans. In addition to data provided as part of the annual evaluation process, NMSU has access to various databases that can provide useful information to units for this purpose, such as *Gray Decision Intelligence* data (program and department economics, job markets, and comparison to other programs in the state or region); *Steppingblocks* (alumni placements); *Academic Analytics* (scholarship); *Streamlyne* (grants and contracts), and others. Units should seek help from their colleges and from the Office of Institutional Analysis (OIA) in gathering information to formulate a plan. Consistent with program review, units should also consult their associated professional organizations regarding relevant standards and trends in the discipline.

Most states allow for exceptions to low-yield criteria. For example, in some disciplines a doctoral degree is the most natural result of graduate training, with a master's degree in place for cases of pass through or stop out (e.g., Astronomy). Other exceptions *may* be considered based on the following criteria:

- the unit offers multiple degrees under different CIP codes that have overlapping requirements resulting in ample, stable enrollments in required course offerings,
- unit generates substantial SCH to meet curricular requirements of programs offered by other units and further requirements of program in question do not add significant cost,
- the program serves a unique, critical workforce need or other critical aspect of NMSU's mission,
- the unit has demonstrated progress on a continuing action plan; program is close to threshold,
- potential factual errors in applying criteria to designate the program as low yield (in such a case the academic unit should respond as soon as possible),
- departments with strong production in another degree program can have the stronger program "carry" the lower-yield program for a finite period of time, say 3 years.

[8] Flexibility for units offering multiple degrees could allow a specialized program to reside inside a unit having a broader mission. Each of the academic colleges at NMSU has at least one department housing bachelor's programs under multiple CIP codes. Headcounts are broken down by program in departmental annual reports and economic efficiency can be measured at the program level.

Failure to acquire resources requested to implement an action plan should not generally be considered grounds for an exception. Any request for exception should include compelling supporting data. Such a request should be addressed to the provost through the academic college. The provost would decide whether to grant an exception or require an action plan, after consulting with relevant deans.

Summary of Roles in Productivity Review

Provost: Work with UPAC to develop or revise criteria to designate a program as low yield. Maintains a list and review status of such programs. Inform academic units through their academic colleges, and the Graduate School in case of graduate programs, of any programs that are identified as low yield. Work with Institutional Effectiveness and relevant deans in managing review of action plans. Decide, in consultation with relevant deans, whether to discontinue or consolidate low-yield programs if actions taken do not enhance program productivity.

Academic Deans and Graduate Dean: Help academic units to develop and manage action plans towards enhanced program sustainability. Verify progress on action plans as part of annual performance review of academic units and report annually to the provost. Consult with provost regarding discontinuation or consolidation of low-yield programs.

UPAC: Work with provost to develop or revise criteria to designate programs as low yield. Annually, provide the provost a list of identified low-yield programs and basic information regarding alignment of such programs with NMSU's strategic plan. Include summary information in its annual board report and communicate with ADAC through its co-chair role. Possibly codify role under ARP 4.81.[9]

Institutional Effectiveness (under Provost): Build action plans into academic program review cycle. Provide feedback through program review process, including assessment of student learning.

Faculty Senate (besides UPAC co-chair role): Approve any eventual academic low-yield program policy for ARP. Approve any academic unit modification (ARP 2.15-A) that might result from program consolidation or discontinuation. Report to Faculty Senate leadership through UPAC co-chair.

Suggested process timeline:

Time must be allotted for an academic unit that administers a program identified as low yield to formulate an initial action plan to be submitted through the relevant academic college in alignment with NMSU's annual performance review cycle, and to document progress. Sustainability should be addressed for all academic programs. In cases of low-yield programs, specific documented actions should undergo a more formal review each year. The following rough timeline assumes calendar year annual review cycle. In cases of graduate programs, each formal communication is to be copied to the Dean of the Graduate School.

Early to mid-Spring: UPAC reviews all programs against low-yield criteria, including newer programs that listed target enrollments during the new program proposal review process. For programs identified as low yield, UPAC reviews economic data (e.g. Gray DI) and other potentially distinguishing aspects of the program, if known. Provides this information to Provost Office.

Late Spring: Provost Office reviews the list of low-yield programs with relevant deans and notifies colleges and graduate school of additions to the list of programs to be reviewed for low yield, status of ongoing reviews, and reviews that have concluded. For added programs, academic college informs the

[9] This could be done by splitting APR 4.81 Part 3 into two parts: the existing part addressing new programs and modifications, and a brief paragraph authorizing the provost to work with UPAC and FS to formulate and amend procedures and criteria to review and potentially discontinue or suspend low-yield programs.

unit that an action plan will be required as part of the annual review process. For ongoing reviews, academic college informs unit that an update on actions will be required as part of the annual review process. For reviews that have concluded, provost will decide, in consultation with the relevant deans, whether to discontinue, consolidate, or continue the program.

Early January: For programs that were newly categorized as low yield in the previous Spring, unit submits a plan with its annual performance review materials. For programs in a phase of implementing actions, unit submits progress report with its annual performance review materials. For programs concluding implementation phase, program submits a final report. In each case, the relevant deans may recommend revisions of these plans or reports. Each report is also to be submitted with academic program review documentation at the appropriate time. Academic college includes these plans or reports with annual performance review materials submitted to the Provost Office.

In absence of a defined academic program review cycle, a fixed number of years should be allowed for an action plan to demonstrate progress[10]. In cases where an interim report fails to document necessary implementation a decision to discontinue the program short of the intended review term may be necessary. Conversely, if actions taken result in a fast, sustainable recovery in enrollments, a decision may be made to remove probationary status.

Currently there is not clear alignment between multi-year academic program reviews and one-year performance reviews.

Current low yield data

The following table provides sample data over the academic year window 2021–2023 for those NMSU Main departments (de-identified) having net undergraduate enrollments/awards towards the low end.

Dept.	Degrees listed	Bach Awards 21-23 (3-yr)	21–23 avg Bach HC	19–21 avg grad HC	Dept Econ* (%Contr./SCH)	Other factors
Dept1	BS (2 conc), Master, PhD	15	15	15	51%	
Dept2	BS (3 conc), MS	15	31	16	30%	
Dept3	BS, Master, PhD	36	17	84	47%	
Dept4	Bach., Mast. (+conc),PhD	20	40	32	34%	
Dept5	BA (+conc)	20	56	-	35%	
Dept6	BS (2)	36	57	32	35%	
Dept7	Bach (2, +2conc), MS, PhD	52	149	34	48%	
Dept8	BS (5 conc), MS, PhD	32	56	37	65%	
Dept9	Bach. (3,+2 conc), Mast.	37	128	16	19%	
Dept10	Bach (2)	31*	70	-	67%	
Avg.		54-66	80-100	30-40	45%	

[10] The UPAC subcommittee suggests a three-year cycle for academic unit to demonstrate implementation of action plan and document a positive impact of such actions and recommends that such documentation can be the basis for an additional three-year review, if needed, before a final decision is made.