Optimizing Academic Degree Program Management: A Systematic Approach and Impact

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Problem Statement: Higher education has an opportunity to provide greater transparency in its return on investment by developing a sustainable and systematic approach to academic degree program portfolio development and management, and it is possible to do so by meeting and maintaining external standards and requirements through consistent processes and documentation.

Abstract: University of Phoenix has an internal structure in which the university and its operations are more centralized and thus has an intentional balance between academic freedom and internal and external standards. The University Program Lifecycle (UPL) process, established over a decade ago, in 2012 provides the structure to maintain the University's focus on rigorous and meaningful, market-benchmarked academic offerings for students that align to real-world opportunities. Meeting the vision for a valid and thoughtful academic portfolio established a major milestone on the journey to fulfill the University's mission as the higher education environment around the university continued to change. Over the past decade, UPL coordinated stakeholders across multiple functional areas ranging from academic program leadership to advising, financial aid, accreditation, and more. UPL consistently improves resources and support in academic programs across over one hundred different work processes within the institution. The UPL process ensures responsible management and internal and external compliance of the University's portfolio of academic programs.

The UPL process and leaders provide unique insights and support at the intersection of academic program design, industry standard, and delivery of career relevant education. External regulations and standards provide boundaries for UPL and the institution to operate within. The systematic process provides consistent and responsible development and management for each academic program. Importantly, the orchestration of academic and operational processes has provided a solid foundation for extensive innovation, including empowerment of a nimble and research-based academic vision

across disciplines, thought leadership related to coordinating complex university processes, and contributing to the University's market differentiation through skills-aligned learning.

The impact of a systematic approach to academic degree program management

> **""The growing need for digital skills took this skills mismatch one step further, making it imperative for employees to reskill and upskill themselves to meet their companies' evolving technological needs... Educational institutions are the foundation of the house - the steppingstone for students to move into the real world of work. And this stone needs to be rock solid. "**
> — Marques, 2023

University of Phoenix is known for innovating to provide higher education through the online modality of learning for non-traditional students and adult learners. Reflecting the university's commitment to innovation, it has developed a unique approach to manage academic programs. The University Program Lifecycle (UPL) process has played a key role integrating skills effectively into academic programs. Microsoft Power Apps, a customized App used by UPL, provides a strategic and secure approach for academic leaders to design or improve an academic program from the concept idea throughout a full program lifecycle to expiration that can span decades. To maintain the program lifecycle, leaders responsible for this work balance process needs, stakeholder needs, external needs, and provide insights on program data and changes and thought leadership in program innovation. These responsibilities constitute a deeper dive into the academic program design and delivery, external regulations and standards, and extensive research, encompassing various industries and in the higher education sector. Additionally, these responsibilities consider internal requirements, academic freedom, and operational complexities inherent to an academic institution. University of Phoenix relies on this approach to consistently uphold and deliver quality academic degree programs for students.

Academic program design and delivery

At the highest level, there are three key stakeholders for a degree offering: Students, Employers, and Institution. Students earn a degree because they want a different job or career. Institutions educate students with the appropriate information and skills to fulfil their job or career needs. In turn, employers want workers who have the knowledge, experience, and skills to perform highly in a job or career. UPL facilitates the appropriate integration between students, education, and employers, to support and substantiate the assurance of standards to offer quality, career-relevant education.

The UPL process comprises three broad stages: build, maintain, and retire, in nine phases. Within each stage, there is a consistent emphasis on the program's value provided to students and employers. Each phase likewise places an emphasis on ensuring that the University is launching

quality, skill-aligned programs which have received the appropriate internal and external approvals, meet the student's needs, and will be competitive in the marketplace.

University of Phoenix manages academic programs based on versioning to ensure appropriate tracking and notification of academic and curriculum changes with external regulators and internal support. A program's lifetime lasts multiple years and is dependent on area of study and credential level. The versions of the program change throughout that lifetime. Typically, an academic degree program version will not exceed 10 years in age due to factors measured, tracked, and evaluated in real-time with changes.

The College dean curates and sponsors new program ideas and all academic decisions. Prior to a dean submitting a program idea to UPL for research or discussion, the process starts with designing the initial framework to build a program. Pre-research allows for the dean to determine the occupational mapping and general information related to the program and desired outcomes. Classification of Instructional Program (CIP) and Standard Occupational Codes (SOC), which relate to jobs that a graduate would be prepared for, and the appropriate credential level for them.

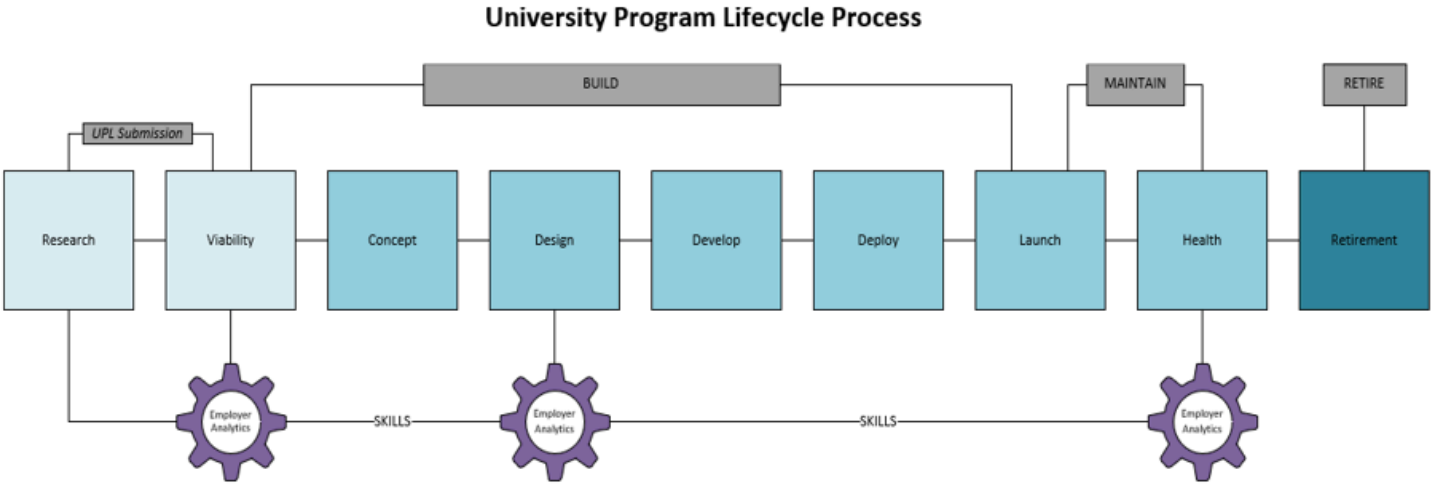

Figure 1 - Diagram of University Program Lifecycle Process

Research Request

The UPL team receives notification when a College dean submits a research request. UPL formally integrated and implemented the research process in 2021. The research phase allows for vetting program ideas and internal stakeholder resources to dedicate time and resources more efficiently. This ensures that the investment in a program offering is valuable to the market and needs of employers as well as being viable to develop and maintain.

> **““Your program-to-occupation research can guide decisions about which programs to expand (by hiring additional faculty or investing in new facilities and equipment), and which new programs to launch. By aligning growth to labor market gaps, you ensure that your institution is positioned as a vital part of your region's economic ecosystem, while also positioning your graduates for rewarding work in in-demand career areas."**
>
> — Verougstraete, 2023

UPL research requires that the College or academic dean select the intended Classification of Instructional Program (CIP), Standard Occupational Codes (SOC), job titles for which a graduate would be prepared, and the appropriate credential level.

The CIP code is crucial to seeking eligibility for an academic program for federal funding sources. The CIP code, developed by the U.S. Department of Education National Center for Education Statistics (NCES) in 1980 is the federal government's standard to connect academic programs to fields of study and completion activity within the programs. Every post-secondary program eligible for or offering federal funding must have a CIP code assigned to ensure it is reported and tracked (https://nces.ed.gov/ipeds/cipcode).

The CIP selection and decision allow for the dean to select crosswalk Standard Occupational Codes (SOC). SOC codes provide reference across the federal government to classify job categories and collect, calculate, and report data on jobs. Classification of jobs and worker fall into one of almost nine hundred detailed and defined occupations in the United States. Job titles are sourced from O*Net Alternative Titles list and crosswalked to the eight-digit SOC. O*NET describes occupational data as an "essential to understanding the rapidly changing nature of work and how it impacts the workforce and U.S. economy" (About O*NET, 2023).

Completed research submissions in Microsoft Power Apps trigger the automated workflow notifying UPL leaders that a dean requests research and data on the research item. The UPL team uses Lightcast Analyst to pull the initial job posting analytics (JPA) report. Lightcast is a data tool that provides the ability for insights from relevant government data, from more than 65,000 online sources (Lightcast). This data, in addition to faculty as well as program and industry related subject matter expert feedback produces a synergy supporting the University's mission: University of Phoenix provides access to higher education opportunities that enable students to develop knowledge and skills necessary to achieve their professional goals, improve the performance of their organizations and provide leadership and service to their communities.

> **"Labor market data is an essential tool for aligning programs with careers and demonstrating that alignment throughout each step of the learner lifecycle."**
>
> — Salmon, 2023

The job posting analytics report allows for defined filters to pull job postings specific to a program's intended outcomes and the program to occupation selection. The data provided to the deans is unique for each program and includes employer-sought skills, job titles, employer/industry education and experience requirements, past trends, and future projections specific to job growth/decline over time. This data provides insight into employers and industry and therefore career relevancy. This information allows for the academic team to determine if a degree aligns to the needs or if other academic offerings would be more suitable.

Build Stage

The Build stage was the first established process in University Program Lifecycle (UPL) (Figure 2). The original work provided visual representation of institutional complexity in a single program build. The complexity ensures that the University is launching quality programs that have received the appropriate internal and external approvals, meet the student's needs, and that will be competitive in the marketplace.

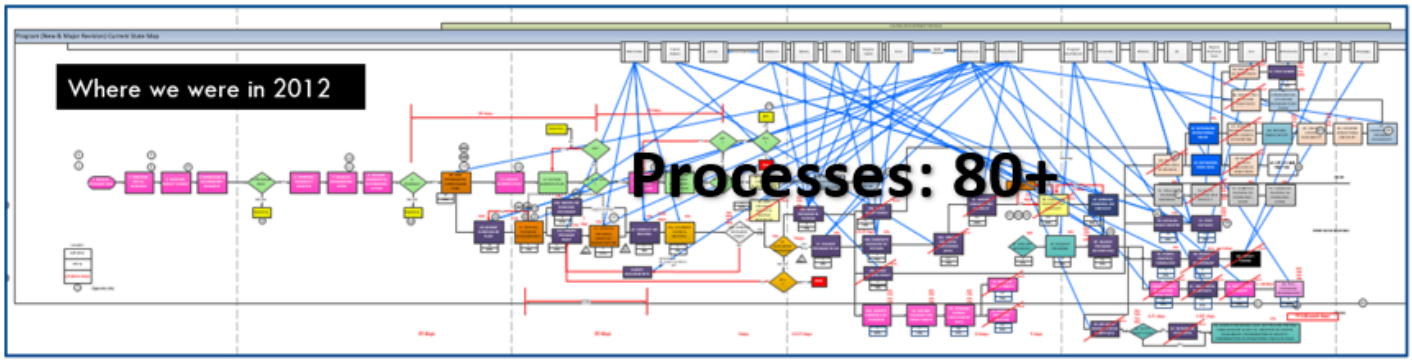

Figure 2: UPL in 2012

In 2015, improvements by the UPL team transitioned the process from an MS Excel Spreadsheet to MS SharePoint and custom coding. This was an opportunity to enhance the reporting within the Build stage and shift to better fit the needs of students, employers, the institution, growing stakeholders, and increase value to career relevancy and skills.

Viability Phase

A program idea moves from research to the viability phase once the dean validates and finalizes the CIP/SOC/JOB combination. Once a program enters the viability phase it requires internal stakeholders to invest time and resources into the program idea. The UPL team conducts the viability kick-off meeting to allow initial internal stakeholders; marketing research, Financial Planning & Analysis (FP&A), University Legal, Federal Policy and Reporting (FP&R) to complete a critical evaluation of CIP/SOC/Jobs done by the internal market research team. This evaluation results in a market study.

Work completed in the viability phase is an important connection point for the three major stakeholder groups: Competitive Insight/Marketing, Financial Planning and Analysis (FP&A), and the College. The market study and recommendation work are the first completed and used for multiple purposes (Figure 3). It includes insights from the marketing team which allows for recommendations

to ensure marketability and demand for the program. For new programs or requests to modify details on a program already licensed, this market study is repurposed and submitted to the state. The completed market study posts to UPL notifying the dean and the Federal Policy and Reporting team then explores the details to help identify any potential risks early.

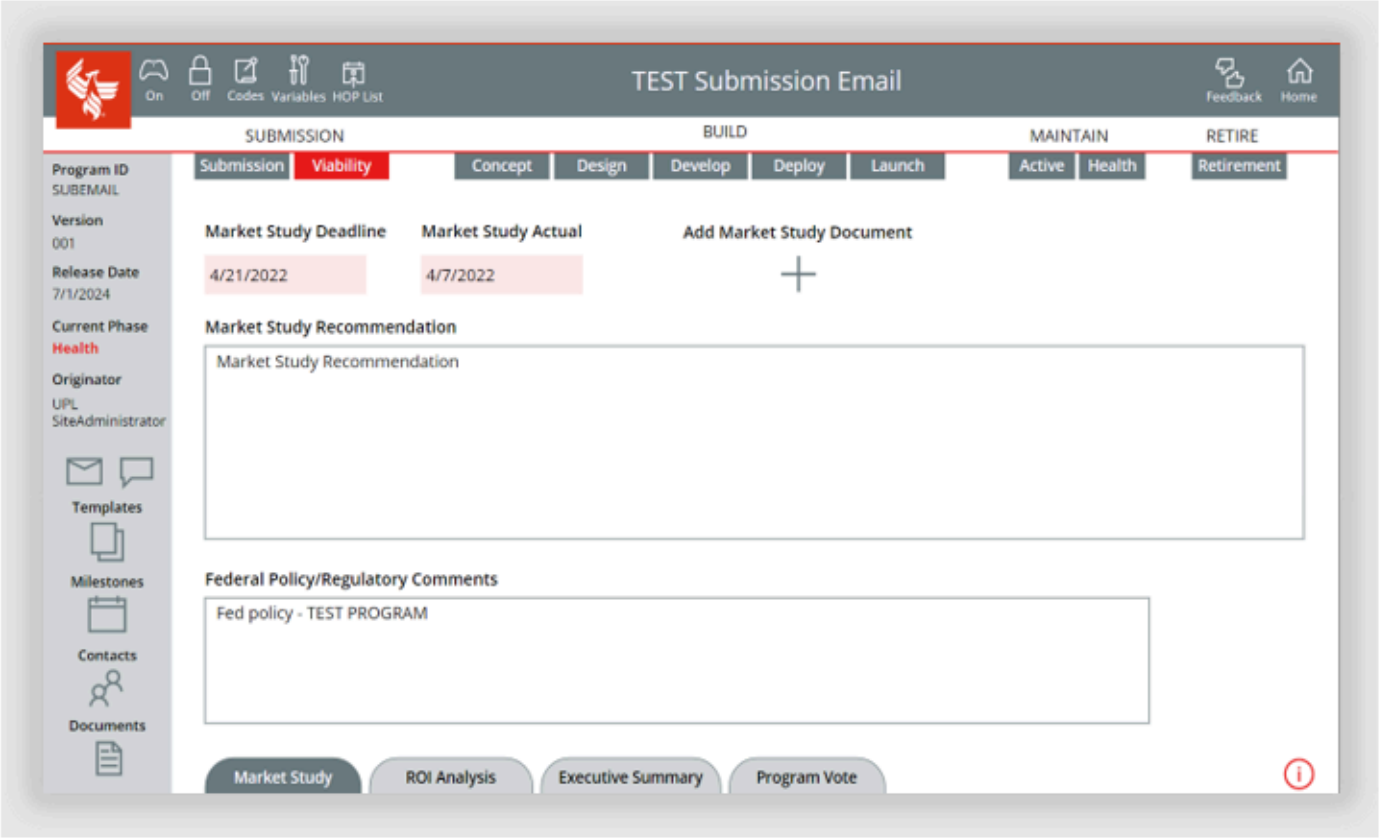

Figure 3: UPL Microsoft Power Apps Tool - Viability - Market Study

The FP&A team uses the market study to conduct a return on investment (ROI) analysis, providing downstream stakeholders with the details necessary to prepare appropriately for growth and other operational needs.

The last step in viability is the executive summary and viability committee vote. The College dean uses the different analyses completed, the recommendations shared by the leaders within those departments, and all the completed research to provide a holistic summary addressing risks or concerns for the viability voting committee. The executive summary serves as a source and substantiation that the program concept is in fact viable based on different reviews. The committee that votes comprises leaders from across the key university functional areas: Academics, Marketing, Faculty, Financial Planning, Enrollment, Institutional Accreditation, and University Strategy. Brand-new program offerings require approval based on majority.

Concept Phase

The Concept Phase aims to expand upon research and investment justification while also preparing for programmatic accreditation, professional licensure, and association approval or recognition. During this phase, the focus is on documenting the program's foundational methodology using

accreditation and programmatic information, as well as input from faculty and industry related SMEs connected to the Colleges.

To formally begin the Concept Phase, the UPL team hosts a program kickoff meeting for the College dean to present the program concept and designated program outcomes to key stakeholders. The kickoff also establishes the intended release date and deadlines associated with the program launch, and formally introduces key program deliverables in the future build phases.

The Accreditation and Regulatory Compliance (ARC) team serves as the main point of contact for Institutional Accreditation standards and is a key stakeholder for programs seeking external/industry alignment or certifications. The ARC team is also a key stakeholder in concept, and there are actions required if a program intends to align to any external entity. This step and information are crucial within the build stage; it ensures alignment and process flows, and triggers ARC based on imputed information. Upon finalization of this phase in collaboration with ARC, the information serves as essential information for various stakeholders, such as Federal Policy and Regulatory, FP&A, marketing, registrar's office, college operations, and student services operations, for program trainings, formal enrollment documents, phoenix.edu, and the academic catalog. The completion of this information also facilitates reporting capabilities based on programmatic accreditation, industry and/or professional alignments producing a template for accurate program monitoring, and maintenance reviews.

Design

The Design Phase supports the process of refining the initial program design for internal approval. This stage includes documenting fundamental aspects of the program, like defining and finalizing outcomes and skills for both courses and the program, outlining program policies, and securing internal approval from faculty and governing bodies.

Within the Design Phase, the UPL team holds a Design session meeting with internal UPL stakeholders. This design session allows the College or Program dean to re-introduce the program, share formalized program design details used for future program development including but not limited to completion of a program policy, formal faculty council support, and finalize program frameworks such as program student learning outcomes (PSLOs), program description, determination of associated program impacts, and, as needed, program purpose statements. These are all milestones important for future work within the UPL processes, including production of academic catalog materials, system, and technical support, and compiling formal program documents for internal and external approvals.

The Design Phase concludes with internal governance approval through the Academic Council (AC), an essential component of the University’s overall governance structure. All academic policies and programs are subject to review and approval of the AC, which is comprised of faculty and key functional leaders across the institution. The purpose of the AC is to create, maintain, review, and approve academic policies and procedures, including admissions, programs, curriculum, faculty, and curriculum-related policies consistent with the mission and purposes of University of Phoenix as an institution of higher learning.

Develop

The Develop phase is the formal internal and external approval process. Applications are prepared for external accreditation and regulatory submissions. The UPL process provides support as documentation of date actions is completed and the necessary documentation is available within the program documents. The Program crosswalk provides critical information such as course IDs, credits, descriptions, and course textbooks, faculty content area requirements, comprising a high-level overview of program changes from a current to new program version offering. The details within the crosswalk documents decisions and approach to Federal, State, and Accreditation related submissions.

The Develop phase also prompts crucial internal work, further supporting program development and sharing of key program outputs, such as program student learning outcomes (PSLOs), required courses, credits, instructional program weeks, and the formal wider system integration of CIP/SOC/JOB codes and classifications. Once responsible stakeholders complete review and documentation of the program approval, the program is ready to move to the next phase.

Deploy

The Deploy Phase is a pivotal milestone, advancing the program framework of outcomes, and program design of program and course outcomes and skills to staff, faculty, and student facing mediums, with the development of curriculum, program training and communication, and front-facing webpages like phoenix.edu.

The Deploy General Session, facilitated by the UPL team, hosts UPL stakeholders to update and align on the status of the program in the UPL process. Current timelines for course development and revisions, development training and marketing materials, validation of program financial eligibility, and planning for program announcement within Academic Implementation Council (AIC) are including in the meeting. Academic Implementation Council meetings provide a forum for all University of Phoenix campuses and departments to review new programs and program versions, new policies, and changes to policies approved by the University Academic Council. Participants provide feedback or questions during this session to ensure proper implementation of the items discussed.

Launch

The Launch Phase is a process confirming all required UPL program build steps are complete including confirmation of all program approvals by external bodies. This ensures that the institution is sufficiently prepared to release a new program and to identify any outstanding issues that may prevent a successful launch. The program and work done throughout the build process leads to a comprehensive checklist for formal signoff on all key program design and build components. UPL facilitates the launch checklist review in collaboration with key UPL stakeholders.

Maintaining Quality Programs

> **“If students are satisfied with their experiences (both academic and student support), and if the institution has resources in place to cater to online students’ needs, then we can deem the institution successful in providing online students with the necessary support.”**
>
> — Varma, 2023

The official launch of a program signifies a major milestone in its active lifecycle. The responsibility falls upon the College dean to uphold the program's integrity by ensuring that its curriculum, content, skills, assessments, and materials stay relevant throughout its existence. To support program relevancy, in 2018, the UPL team formally implemented the Health of Program (HOP) process.

Health of Programs (HOP) has two types: Health Check or Program Review. The Health Check provides an effective approach to responsible program portfolio management to evaluate the quality, currency, and institutional mission-alignment as a method for making informed, data-driven decisions and improvements. This phase includes an examination of the existing programs, courses, outcomes, skills, faculty, and feedback from students, faculty, and stakeholders. Updated job posting data from the Job Posting Analytics (JPA) provides additional details integrated by the UPL team and includes recommendations from the UPL team. This includes a taught/sought analysis which pulls the employer sought skills from the program JPA (SOC/JOB/Credential level) and compares it to the current skills mapped and tagged in the program and course assessments and outcomes. This data analysis highlights where there is alignment between content taught in the courses and what employers may be seeking. This analysis also highlights potential opportunities for the dean to re-evaluate a skill selected or reflect changes within the industry and job market, from the employer’s lens. If there are any changes or new SOC/Jobs that appropriately align to the program's outcomes and skills, the dean would submit a request through the validation process within the existing health check that is active and under review.

Program validation is an additional key process completed by the UPL team, Colleges, and used by the Federal Policy and Regulatory (FP&R) team. The process includes a holistic review of the academic portfolio CIP/SOC/JOB’s, with analysis of the most current CIP/SOC/JOB data posted each September, by Bureau of Labor Statistics (BLS). The BLS data includes ten-year employment projections for jobs, which provide general education level, salary levels, growth percentages along with other data based on employer surveys and reporting. This review and analysis ensure alignment to most current government data.

Program Retirement

The final of the three University Program Lifecycle (UPL) stages is program retirement. Program retirement occurs when a program and/or program version will no longer be available for new student enrollment but will continue to support students currently enrolled in that program version that are within their program completion deadline.

The Retire stage encompasses processes that allow the University to retire programs over time, including pre-retire planning, review processes for retirement, expiration, and obsoletion of programs. During the Retire stage, the institution ensures plans to teach out students in these programs enabling students in active attendance to complete their program even if it is in the Retire stage. The focus is on supporting current students in completing their academic goals in the current offering or if the student chooses, transitioning into the newest offered version and curriculum.

Relentless Process Improvement

The University Program Lifecycle (UPL) process has consistently improved since it was established in 2012. In the beginning, it was a static process with minimal flexibility, but it structurally supported the development of programs. The build process was the first stage developed and deployed. In 2015, the team made improvements, and worked to incorporate MS SharePoint custom coding that created a program deployment dashboard generating stronger shared visibility across stakeholder groups. This work led to the development and deployment of the program retirement process in 2016, leading the way to 2018, when the program maintenance process deployed, encompassing the full lifecycle of the program management process. With a continued focus on supporting operational efficiency, mitigating institutional risk, and improving the student and stakeholder experience, in 2021, the UPL process incorporated Power Apps, a customizable product by Microsoft. The custom Power App provides the ability for internal documentation of the key program components and processes, which leads to a comprehensive repository of the program data, research, value proposition, and institutional alignment to its mission. The implementation of the Power App has created further empowerment for UPL stakeholders to partake in the process.

Figure 4: UPL 2012 to 2021

UPL Impact and Results

With a systematic process and focus on quality excellence, UPL has provided the University with support in successful execution of the below program launches, program reviews, retirements, and initiatives.

- Monitors and provides guidance and alignment across more than 100 active program offerings.
- Supported and aided in successfully releasing over 175 new and revised programs from 2016 to 2023.
- Administered over 275 program retirements from 2016 to 2023.
- Coordinated and initiated 300 Health of Programs from 2020 to 2023.
- Preserves over 3,000 supporting program documentation and artifacts.

- Monitors and aligns over 100 different work processes, spread across 13 different University-wide departments.
- Provided foundational process framework in supporting new academic badges (over 181 academic badges) and over 300 professional development skill and course offerings.
- Supported the curriculum to careers and skill alignment initiative across the academic program portfolio of 100 programs.
- Supports University accreditation documentation, including institutional accreditation documentation related to academic rigor, courses, programs, and quality education.

The UPL process has consistently added value to the university's strategic goals, and the quality of its programs. UPL is a core process which feeds information and enables tools and resources for the entire university as a platform for continuous improvement.

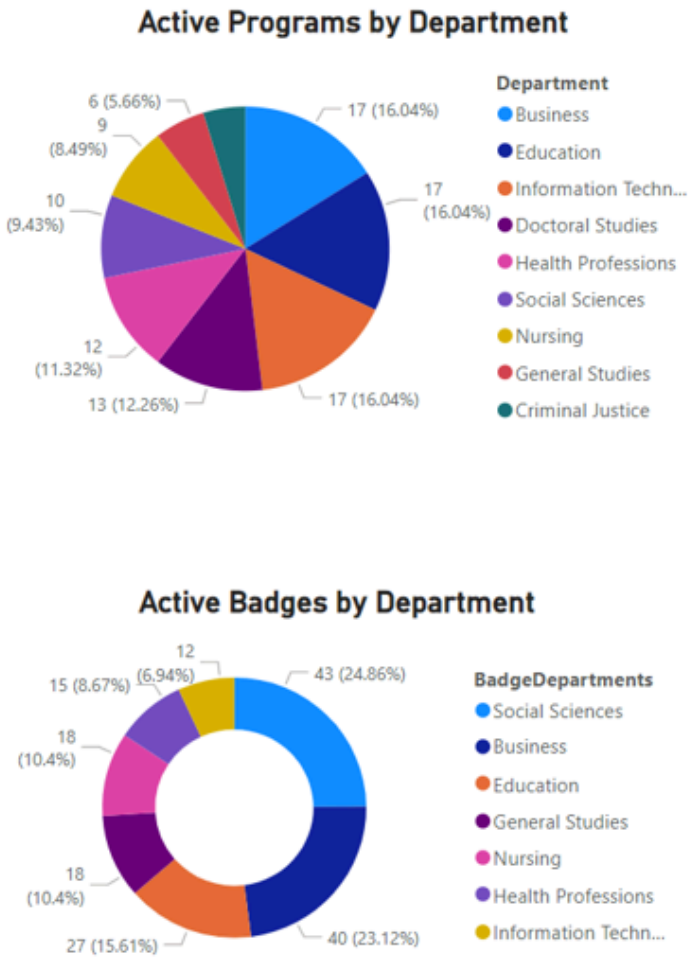

Figure 5: Current active programs and badges monitored by UPL

The UPL team consistently provides unique insights on programs, provost strategies, and recommendations while focusing on embracing change and innovation. This specifically has led the way to support new large-scale initiatives, such as professional development offerings and the University's academic badge initiative.

The UPL process provided the structure to transition the academic program portfolio to the skills-mapped structure today. Since 2020, UPL provides core support for the process and structure needed to integrate skills into programs and courses by College leaders and the curriculum and assessment

teams. UPL provided a framework facilitated by the collaborative partnership built over the years with marketing research partners, university legal services, federal policy and reporting leaders.

Conclusion

The UPL process threads the university's mission and vision throughout the work and deliverables of managing academic programs, ensuring that each program meets internal as well as external standards and requirements and continuously improves. The robust UPL process described here represents the foundation for creating sustainable measures of operational efficiency in the university's program portfolio management. The UPL process and the teams that support it consistently demonstrate an emphasis on quality design, implementation, and improvement using sustainable measures mitigating institutional risk and improving the student and stakeholder experience.

The influence of UPL has gradually expanded over time as the process supports and drives newly developed initiatives and fosters ongoing process development. Each year the UPL process provides evidence of the work done across the institution to support accreditation criteria, student needs, faculty requirements and align to goals desired internally and externally for the institution. UPL will continue to support responsibility for consistent demonstration of quality academic programming aligned with institutional compliance in support of the growth and maintenance of the University's program and course portfolios. UPL provides the vehicle for incredible impacts, changes and thought leadership in higher education.

As University of Phoenix moves forward, the well-established process framework for UPL provides a poised approach to sustain and further elevate operational efficiency, ensuring responsible growth and maintenance of the institution while effectively mitigating risks associated with the program lifecycle.

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About the Authors

Hillary Halpern has been with University of Phoenix for 16 years and currently serves as the Senior Director Program Deployment, where she has leveraged her in-depth insights from her student support and process improvement background to develop, improve, and maintain the University Program Lifecycle (UPL) process. Halpern helps guide the evolution of the program lifecycle process at the institution to help ensure academic programs are aligned to external standards and regulations, as well as how they can be best leveraged using occupational codes and jobs to build an infrastructure to connect courses and programs to skills. Recognized as "Rookie of the Year" examiner award in 2017 from Southwest Alliance of Excellence (SWAE), Halpern also earned the 2017 President's Award from University of Phoenix for her contributions to the UPL process. She has served as a lead examiner for the SWAE and as a speaker on process improvement at regional and national conferences. Halpern has a Bachelor of Arts in Psychology from Arizona State University, and a Master of Business Administration and Graduate Certificate in Human Resource Management from University of Phoenix.

Chelse Thomas has served at University of Phoenix in Student Services, Registrar's Office, Curriculum Learning and Technology, since 2009, and currently serves as the Senior Manager of Provost Initiatives and Academic Program Lifecycle. In this role, she leads the definition, implementation, and management of the university's academic program lifecycle process. Thomas provides support in strategic projects and initiatives, offering thought leadership on the provost's strategy, and assisting academic colleges in making informed decisions and plans regarding academic program offerings to mitigate institutional risk. Thomas is a devoted advocate for the importance of lifelong learning and continuous development, a passion reflected in her director roles with Phoenix Women Rising, Employee Resource Group, where Thomas actively promotes leadership opportunities and fosters professional growth among colleagues. She holds a Bachelor of Science in Apparel and Textile Studies from North Dakota State University, and a Master of Arts in Education, Adult Education and Training, and Project Management Certificate from University of Phoenix.