KENTUCKY COUNCIL ON POSTSECONDARY EDUCATION
ACADEMIC & STRATEGIC INITIATIVES COMMITTEE

June 10, 2024 – 10:00 AM ET
Virtual meeting: https://us02web.zoom.us/j/89129396618

Indicates action item

Who:	Kentucky Council on Postsecondary Education
Meeting Type:	Academic and Strategic Initiatives Committee
Date:	March 25, 2024
Time:	10:00 a.m. ET
Location:	Virtual Meeting via ZOOM Webinar

CALL TO ORDER

The Academic & Strategic Initiatives Committee met Monday, March 25, 2024, at 10:00 a.m., ET. The meeting occurred virtually via ZOOM webinar. Committee Chair Karyn Hoover presided.

ATTENDENCE

All committee members attended the meeting: Dr. Kellie Ellis, Dr. Meredith Figg, Karyn Hoover, Chloe Marstiller, LaDonna Rogers and Kevin Weaver.

Heather Faesy, CPE's Senior Associate for Board Relations, served as recorder of the meeting minutes.

APPROVAL OF THE MINUTES

The minutes of the January 16, 2024, meeting, were approved as distributed.

PROPOSED NEW ACADEMIC PROGRAMS

Dr. Melissa Bell, CPE's Vice President of Academic Excellence, introduced six new academic programs for review and approval. KRS 164.020 (15) empowers the Council on Postsecondary Education to define and approve the offering of all postsecondary education technical, associate, baccalaureate, graduate, and professional degree, certificate, or diploma programs in the public postsecondary education institutions.

Council staff reviewed the proposed programs and recommended approval.

B.S., Applied Engineering - CIP 15.0000 – University of Louisville
Presented by: Dr. Thomas Rockaway, Associate Dean at the Speed School of Engineering
  – The 120-credit hour program will fill the gap between two-year technician programs and the traditional four-year engineering degree and appeal to students with a keen

interest in application-based engineering projects and less interest in the theoretical aspects of engineering.

B.S., Biochemistry - CIP 26.0202 – University of Louisville
Presented by: Dr. Craig Grapperhaus, Professor of Chemistry
 – The 120-credit hour program builds upon an existing Biochemistry track within the B.S. in Chemistry that is largely populated by students intending to continue in the health care field. This program was targeted to "grow" as a result of a baseline program review between 2019 and 2021.

B.S., Exercise Physiology - CIP 26.0908 – University of Louisville
Presented by: Dr. Megan Shreffler, Chair of Health & Sport Sciences
 – The 120-credit hour program will prepare students for careers in allied health, physical and health education, and human performance fields and is currently a track within the Health and Human Performance program that is ready to be elevated to a stand-alone major. The new program will deliver a curriculum providing students with a deep and comprehensive understanding of human physiology and the ways in which human movement and exercise initiate structural and functional adaptations at the biochemical, physiological, and biomechanical levels.

M.S., Artificial Intelligence in Medicine - CIP 11.0102 – University of Louisville
Presented by: Dr. Martin G. O'Toole, Associate Professor of Bioengineering
 – The 30-credit hour program will prepare students to analyze medical care and public health care data. With this degree, students will learn to analyze, present, and use data through computation, modeling and simulation, machine learning, and advanced statistical analysis.

MOTION: Ms. Rogers moved the Committee approve the four proposed programs from the University of Louisville and recommend final approval by the Council at its March 28, 2024, meeting. Dr. Figg seconded the motion.

VOTE: The motion passed.

B.S., Data Science - CIP 30.7001 – Western Kentucky University
Presented by: Dr. Alex Lebedinsky, Interim Associate Dean and Professor of Economics, Gordon Ford College of Business
 – The 120-credit hour program will merge computer science, statistics, and data analytics to harness the power of data for informed decision-making and innovative problem-solving. Through a combination of theoretical coursework, hands-on projects, and real-world applications, graduates of this program will have the skills necessary to excel in the rapidly evolving landscape of data-driven industries.

B.S., Neuroscience - CIP 26.1501 – Western Kentucky University
Presented by: Dr. Stuart Burris, Associate Dean of Ogden College of Science & Engineering
- The 120-credit hour program is an expansion of an existing Neuroscience track in the B.S. Psychological Sciences and an existing minor in Neuroscience. Students will have three tracks to choose from - Computational, Behavioral, and Systems.

MOTION: Dr. Ellis moved the Committee approve the two proposed programs from Western Kentucky University and recommend final approval by the Council at its March 28, 2024, meeting. Ms. Rogers seconded the motion.

VOTE: The motion passed.

ANNUAL REPORT OF ACADEMIC PROGRAMS - ACADEMIC YEAR 2022-23

Dr. Bell provided the Committee with a report of the academic programs approved, closed, and reviewed during the 2022-23 academic year.

- A total of 150 new academic programs were approved during the 2022-2023 academic year. Of these, 97 are undergraduate certificates and 33 are postbaccalaureate certificates, which require only staff review.
- Per Council policy, universities submitted their program review reports in July 2023. These reports included a summary of the institutional program review processes, programmatic decisions, and plans for the upcoming year. A summary for each institution was provided in the materials.
- During the 2022-2023 academic year, Kentucky's public universities reviewed 188 academic programs and provided recommendations:
  - 45 programs were recommended to grow;
  - 86 programs were recommended to sustain;
  - 52 programs were recommended to be improved; and
  - 16 programs were recommended to close.

No further action was needed by the Committee.

DUAL CREDIT POLICY REVISION

Dr. Amanda Ellis, Vice President, and Dr. Robin Hebert, Senior Fellow, both from the K-12 Policies and Programs unit, presented the 2024 revisions to the Dual Credit Policy for Kentucky Public and Participating Postsecondary Institutions and Secondary Schools. After the first year of implementation, annual reporting and feedback from institutions, staff recommended minor revisions to the Annual Reporting section to eliminate duplication of efforts and streamline the data submission process for institutions. Upon consultation with CPE's Data, Research and Advanced Analytics department, it was determined that the required dual credit data can be more efficiently collected by CPE through the November data

upload currently submitted by Kentucky's institutions of higher education. Narrative reporting about teachers' professional development and communication strategies will still be reported annually on the July 1 timeline.

MOTION: Mr. Weaver moved the Committee approve the revisions to the Dual Credit Policy and recommend final approval by the Council at its March 28, 2024, meeting. Dr. Figg seconded the motion.

VOTE: The motion passed.

REPORT: UNLOCKING ENROLLMENT BARRIERS FOR PARENTING STUDENTS

Dr. Chris Ledford, Associate Director of Data and Advanced Analytics, and Dr. Lilly Massa-McKinley, Executive Director of the Kentucky Student Success Collaborative, presented on the negative impact that parenting status often has on enrollment and student success and how the Kentucky Student Success Collaborative is integrating holistic academic, basic needs, and childcare supports for parenting students.

Over the past decade, sizable majorities of parenting students were either low-income, adult, or female learners, and nearly half met all three criteria. Results from a novel cohort analysis suggest that parenting status has negative impacts on persistence and graduation rates, regardless of when in college students become parents. Unfortunately, parenting student enrollment also declined by more than 50% over the period. Key takeaways are that efforts to grow non-traditional and low-income learner populations must consider the critical intersections with parenting status.

ADJOURNMENT

The Academic & Strategic Initiatives Committee adjourned at 11:15 a.m., ET.

TITLE: Proposed New Academic Programs for Review & Recommendation

DESCRIPTION: Staff recommends the Committee approve the proposed new academic programs from Murray State University, Northern Kentucky University, and the University of Kentucky and recommend final approval of each to the full Council at its June 10, 2024, meeting.

STAFF CONTACT: Melissa Bell, Ph.D., CPE's Vice President of Academic Excellence

SUPPORTING INFORMATION

KRS 164.020 (15) empowers the Council on Postsecondary Education to define and approve the offering of all postsecondary education technical, associate, baccalaureate, graduate, and professional degree, certificate, or diploma programs in the public postsecondary education institutions.

PROGRAMS PROPOSED FOR APPROVAL

Council staff has reviewed the proposed programs and recommends approval by the board. The university-submitted documentation has been included in your agenda packets for review.

Murray State University
- M.S., Economic Analytics (CIP 45.0603)
- M.S., Accountancy and Analytics (CIP 52.1301)
- Ed.S., School Psychology (CIP 42.2805)

Northern Kentucky University
- B.A., Special Education (CIP 13.1001)

University of Kentucky
- B.A., Law and Justice (CIP 22.0000)

PROPOSED PROGRAM SUMMARY

Institution: University of Kentucky
Program Name: Law and Justice
Degree Destination: Bachelor of Arts

CIP Code: 22.0000
Credit Hours: 120
Implementation Date: 8/1/2024

Program Description

This new program will provide students with expertise in the topic of law and courts, as well as skills in analytics and logic, writing, composition, and communication. Students will conduct original research and be trained to contribute to the most pressing societal issues in law and justice.

The new program will require students to take courses across distinct components. These include foci on law and courts; judicial and lawmaking institutions; key issues surrounding justice, equality, and fairness; the law and letters, which emphasizes composition, historical, and philosophical perspectives on the law; and analysis and logic. Students will be required to take coursework in comparative politics or international relations and will choose electives from the areas of judicial politics, international human rights, the European Union, and the dynamics of international law and organizations.

As a result of this program, graduates will be able to:

- explore the structure and functions of law and the legal system in society, both in the United States and abroad;
- evaluate how political context shapes law and the legal system in society;
- conduct research that contributes original knowledge about law and justice, both at home and abroad; and
- analyze fundamental issues surrounding struggles for justice in society within the context of the legal and judicial system, as well as the key role of rights and liberty.

A unique aspect of the new program is that students will be required to complete a course on statistical methods, to ensure students are prepared for careers or graduate programs where reasoning and quantitative skills are necessary.

Connection to Other Programs

The University of Kentucky currently offers, and will continue to offer, a BA in Political Science. Many UK students interested in a pre-law curriculum enroll in programs other than Political Science, but due to course restrictions to ensure space for Political Science students, the existing coursework is unavailable to students in other programs. The new coursework will

provide opportunities for students in a pre-law interest to take courses related to their interests. The department regularly offers law-related coursework in various fields (e.g., politics and courts, civil liberties, criminal courts, and sports and law), and the new program will complement the existing program.

Student Demand
Initial estimates of enrollment are:
Year 1 –   50
Year 2 – 100
Year 3 – 175
Year 4 – 250
Year 5 – 250

Employment Demand
The demand for legal occupations is robust and growing; overall legal-related employment is expected to grow 10 percent through 2031, resulting in about 131,000 new jobs. The national median annual wage as of 2021 for legal occupations was $82,430, significantly above the median across all occupations ($45,760).

Budget
The new program will require the hiring of additional faculty, as well as creation of new coursework. The new program will be revenue neutral for the first three years.

Projected Revenue over Next Five Years ($): $ 2,035,363
Projected Expenses over Next Five Years ($): $ 1,542,982

PROPOSED PROGRAM SUMMARY

Institution: Murray State University
Program Name: Economic Analytics
Degree Destination: Master of Science

CIP Code: 45.0603
Credit Hours: 30
Implementation Date: 8/1/2024

Program Description

This proposed program focuses on the analytical and applied aspects of economics. The program is targeted towards students interested in a variety of data-driven careers, such as data scientists, business intelligence engineers, market research analysts, operations research analysts who, in addition to econometric and statistical skills, require strong data science skills. The new program will include a track in finance to provide students with more focused instruction in that area.

Murray State University plans to create an accelerated path to this new program via agreements with existing baccalaureate programs. This will allow exceptional baccalaureate students to take graduate coursework for the Economic Analytics program, also apply that credit to their baccalaureate degree, and complete both the baccalaureate degree and the program in Economic Analytics in five years.

As a result of this program, graduates will be able to:

- apply knowledge of economics and requisite knowledge in economic modeling, econometric methods, and computational skills to create, analyze and interpret large-scale data initiatives;
- develop economic arguments by collecting relevant data, developing empirical evidence and interpreting the results of such analysis; and
- effectively visualize, conceptualize, and articulate economic concepts and related information in a persuasive manner.

A unique aspect of the new program is that Murray State University plans to seek "partner institution" status with the National Association for Business Economics, to prepare students for the Certified Business Economist certification. This certification in applied economics and data analytics will provide graduates with a professional advantage.

Connection to Other Programs

This program will enhance Murray State University's existing baccalaureate program in economics by providing a graduate program for students who wish to pursue graduate studies in econometrics and analytics, an increasingly in-demand field of economics.

Although two similar programs exist at the University of Kentucky and Western Kentucky University, the new program will train students in a broad set of mathematical and econometric tools, offer instruction in an alternate statistical software, and provide the opportunity of a face-to-face program to students who may not wish to travel two hours to the closest, similar program.

Student Demand

Initial estimates of enrollment are:

Year 1 – 5

Year 2 – 10

Year 3 – 15

Year 4 – 20

Year 5 – 20

Employment Demand

Positions related to the new program are in high demand. According to the U.S. Bureau of Labor Statistics, the data science field is estimated to grow about 28% through 2026 and economics is among the top four disciplines studied by data scientists. Econometrics majors nationally have a median salary of $72,000 and a mid-career salary of $152,100. Economics program-related occupations in the field are in high demand in Murray State University's service area. The number of job postings directly related to this program has increased by 12% in the past year within 120-mile radius of Murray. Specifically, there were almost 500 job postings within a 250-mile radius of Murray state University over a recent 12-month period.

Budget

The new program will not require any additional faculty for the first five years, although it is possible that a faculty member will be hired in the future. Anticipated expenses include faculty compensation for teaching overload courses.

Projected Revenue over Next Five Years ($):	$ 1,468,800
Projected Expenses over Next Five Years ($):	$ 478,278

PROPOSED PROGRAM SUMMARY

Institution: Murray State University
Program Name: Accountancy and Analytics
Degree Destination: Master of Science

CIP Code: 52.1301
Credit Hours: 30
Implementation Date: 8/1/2024

Program Description

This new program will provide graduates a deep understanding of accountancy and expertise in data analytics. In today's competitive landscape, accounting firms and clients highly favor employees who can offer enhanced value through comprehensive data analytics and data science services, delivering insights with greater depth and robustness. The new program is designed to attract students in Murray State University's region who are seeking a credential to enhance their career options, or as a method to obtain 150-credit hours for CPA licensure.

The Uniform CPA Exam is changing in response to the increased technological demands on the accounting profession. Both the National Association of Boards of Accountancy and the American Institute of Certified Public Accountants have challenged institutions to develop programs with an increased emphasis on technological and analytical skills. In this proposed program, students will choose between concentrations in Corporate Reporting and Forensics. Developing expertise in these areas will prepare students for not only the core CPA examination section, but also the examination discipline section in Information Systems and Design.
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As a result of this program, graduates will be able to:

- model, monitor, and analyze accounting data using various data analysis tools and methods;
- use data analytics techniques to address accounting problems;
- analyze accounting data through advanced spreadsheet functions and visualization tools; and
- effectively communicate information related to taxation, audit, and technological and analytical skills.

A unique aspect of the program is that students will be permitted to enter the program at four different points in the year and can complete the program as full-time or part-time students.

Connection to Other Programs

Murray State University currently offers a Master of Business Administration, with options in business analytics, forensic accounting, and accounting. The coursework in these areas will be part of the new program.

Student Demand

Initial estimates of enrollment are:

Year 1 – 5

Year 2 – 15

Year 3 – 20

Year 4 – 20

Year 5 – 20

Employment Demand

There is sufficient demand for this new program. Several private employers, CPA firms, government agencies, and alumni have contacted Murray State University, looking for students with a background in both accounting and analytics. The U.S. Bureau of Labor Statistics classifies the profession as a new and emerging occupation that is expected to rapidly grow. The median wage for a Data Scientist is $103,500 and for an Accountant or Auditor the median wage is $78,000.

Budget

No new coursework or faculty hires are required for the new program. Depending on enrollments, faculty overload compensation may be needed, which is included in the budget.

Projected Revenue over Next Five Years ($):	$ 1,468,800
Projected Expenses over Next Five Years ($):	$ 692,801

PROPOSED PROGRAM SUMMARY

Institution: Murray State University
Program Name: School Psychology
Degree Destination: Education Specialist

CIP Code: 42.2805
Credit Hours: 60
Implementation Date: 8/15/2024

Program Description

The proposed School Psychology program at Murray State University will prepare students for a fulfilling career in various educational settings. The program will emphasize the application of psychological principles and practices to enhance the educational and developmental opportunities for children and adolescents. Through a combination of coursework, field experiences, and research opportunities, graduates of the program will gain the skills and knowledge necessary to collaborate with educators, families, and other professionals to ensure that all students receive the support they need to succeed. The program's accreditation and alignment with national standards ensures that graduates are well prepared to meet the demands of the profession and make meaningful contributions to the field of school psychology.

As a result of this program, graduates will be able to:

- develop a comprehensive understanding of the foundational theories and practices in school psychology and articulate key psychological theories and their application to educational settings;
- critically evaluate and apply evidence-based interventions and practices to support the psychological well-being and educational success of students from diverse backgrounds;
- design, implement, and adapt evidence-based interventions that are tailored to the unique needs of individuals and groups; and
- apply ethical principles and standards of practice, making informed decisions that reflect respect for diversity, equity, and the dignity of all individuals.

Connection to Other Programs

For many years, Murray State University has offered a concentration in School Psychology within the EdS Counseling program. In response to student and market demand, the new program will replace the School Psychology concentration within the EdS Counseling program. The Counseling EdS program will continue to be offered.

A similar program exists at Western Kentucky University. However, due to faculty-student ratio limits from the National Association of School Psychologists, that program cannot accept additional students, despite being relatively close to Murray State University. The University of

Kentucky also offers a similar program, but due to the geographic distance between the two institutions, the institutions are unlikely to be competitors for enrollment.

Student Demand

Initial estimates of enrollment are:

Year 1 – 24

Year 2 – 24

Year 3 – 24

Year 4 – 24

Year 5 – 24

Employment Demand

Federal and state laws, such as the Individuals with Disabilities in Education Act (IDEA), mandate specific actions within schools, primarily for children with confirmed or suspected disabilities. School psychologists (or professionals with comparable qualifications) are often the only individuals uniquely qualified to fulfill these lawful responsibilities. However, there is a gap in Kentucky. The National Association of School Psychologists recommends a ratio of one school psychologist for every 500 students. The organization currently estimates that, in Kentucky, there is a ratio of approximately one school psychologist for every 1,442 Kentucky students.

Budget

The new program is projected to generate revenue over the next five years. Anticipated expenses include the salaries of two full-time faculty members. Funding sources for the program will likely include tuition and fees.

Projected Revenue over Next Five Years ($):	$ 995,720
Projected Expenses over Next Five Years ($):	$ 600,000

<div align="center">**PROPOSED PROGRAM SUMMARY**</div>

Institution: Northern Kentucky University
Program Name: Special Education
Degree Destination: Bachelor of Arts

CIP Code: 13.1001
Credit Hours: 122
Implementation Date: 8/19/2024

Program Description
The Special Education program will provide students the opportunity to earn a baccalaureate degree in a critically important field. In addition, the program will be attractive to para-professionals currently working in a school district who wish to earn a bachelor's degree in Special Education. Like many states, Kentucky has a shortage of special education teachers, and this program will allow students to complete requirements for special education teacher certification more quickly than through most existing programs. The program is offered in a hybrid format that includes extensive hands-on experiences to build a sense of community among the students in the cohort.

As a result of this program, graduates will be able to:

- Advocate for improved outcomes for individuals with exceptionalities and their families, while addressing the unique needs of those with diverse social, cultural, and linguistic backgrounds.
- Create developmentally appropriate and meaningful learning experiences that address individualized strengths and needs of students with exceptionalities.
- Assess, collaboratively analyze, interpret, and communicate a student's progress toward measurable outcomes.
- Serve Kentucky communities, especially underserved populations in northern Kentucky, as well as those in the Cincinnati area.

A unique aspect of this program is that it is a single major. Currently, Special Education teacher candidates at NKU must complete a double major in order to be certified in Special Education, requiring students to earn far more credits than the typical 120 required for a baccalaureate degree. The new program is modeled on the Special Education component of the current double major and students will retain the option to choose to double major.

Connection to Other Programs
Faculty resources and courses will be shared with the current special education double major. Only two new courses are needed; all other courses are shared with the current double major. Additionally, the new program shares some courses within and across other departments in the form of the guided electives.

Student Demand

Initial estimates of enrollment are:

Year 1 – 30

Year 2 – 45

Year 3 – 60

Year 4 – 60

Year 5 – 75

Employment Demand

Since 2019, the Kentucky Department of Education has listed Special Education Services as an area of extreme teacher shortages. The northern Kentucky region is experiencing shortages equivalent to the rest of the state. A recent survey of local school superintendents revealed special education as an area of high priority for teachers. Due to this void in special educators and intervention specialists, school districts have been forced to hire personnel who have not received formal training in teaching students with disabilities. A 2023-24 report on teacher shortages indicates there are special education teachers needed from pre-kindergarten through 12th grade, in counties across the Commonwealth.

Budget

Northern Kentucky University does not expect to incur new costs with the new program. Existing faculty will be teaching the same classes they are currently teaching in the new program.

Projected Revenue over Next Five Years ($): $ 1,000,000

Projected Expenses over Next Five Years ($): $ 875,000

TITLE: Proposed New Academic Programs for Review & Recommendation, Pending Waiver Approval

DESCRIPTION: Staff recommends the Committee endorse for full Council approval the proposed new academic programs from Kentucky State University conditional on the approval of a waiver under consideration by the full Council at its June 21, 2024, meeting.

STAFF CONTACT: Melissa Bell, Ph.D., CPE's Vice President of Academic Excellence

SUPPORTING INFORMATION

KRS 164.020 (15) empowers the Council on Postsecondary Education to define and approve the offering of all postsecondary education technical, associate, baccalaureate, graduate, and professional degree, certificate, or diploma programs in the public postsecondary education institutions.

KRS 164.020 (19) states the Council shall "postpone the approval of any new program at a state postsecondary educational institution, unless the institution has met its equal educational opportunity goals, as established by the council. In accordance with administrative regulations promulgated by the council, those institutions not meeting the goals shall be able to obtain a temporary waiver, if the institution has made substantial progress toward meeting its equal educational opportunity goals."

PROGRAMS PROPOSED FOR APPROVAL, PENDING WAIVER APPROVAL

The Committee on Equal Opportunities (CEO) conducted its annual implementation review of the campus's Diversity, Equity and Inclusion plans from January through April 2024. At its April 22, 2024, meeting, the CEO reported that Kentucky State University did not meet the minimum score required. They stated that implementation of their initiatives is recent, and they expect to see outcomes and results in the next reporting cycle.

As a result, Kentucky State University is not currently eligible to apply for new academic programs during academic year 2024-25, unless they request a waiver and submit an improvement plan to be reviewed by Council staff and approved by the Council at its June 21, 2024, meeting.

To allow for expediency, staff propose the ASI Committee consider approval of the three proposed programs from Kentucky State University, pending the review and approval of their DEI improvement plan at the June 21 Council meeting.

<u>Kentucky State University</u>
- B.S., Biological and Agricultural Engineering (CIP 14.0301)
- B.S., Manufacturing Engineering Technology (CIP 15.0613)
- B.S., Cybersecurity (CIP 43.0404)

PROPOSED PROGRAM SUMMARY

Institution: Kentucky State University
Program Name: Biological and Agricultural Engineering
Degree Destination: Bachelor of Science

CIP Code: 14.0301
Credit Hours: 120
Implementation Date: 8/1/2024

Program Description

The Biological and Agricultural Engineering program will provide students with the ability to apply fundamental knowledge of the physical sciences, mathematics, and engineering principles to formulate and solve problems. Graduates will use mathematical and scientific principles in designing, developing, and evaluating system operations used in production, processing, storage, handling, and distribution of food, feed, and fiber. Graduates of this program will be prepared to address major world challenges, such as implementing improvements in the value chain of food production. Engineering design will be integrated throughout the curriculum, along with skills such as communication and teamwork, and students will be involved in summer internship experiences from their sophomore year through graduation.

As a result of this program, graduates will be able to:

- apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors;
- recognize ethical and professional responsibilities in engineering situations and make informed judgments, considering the impact of engineering solutions in global, economic, environmental, and societal contexts;
- function effectively on a team whose members together provide leadership, communicate effectively, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives; and
- develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions, acquiring and applying new knowledge as needed.

A unique aspect of this program is the capstone design project, which is a two-semester sequence of courses. Students are required to provide a solution to a real-world problem, which requires hands-on experience for the students, guided by their senior faculty advisor and/or in collaboration with an industry advisor. The capstone model will ensure students acquire both the soft skills and hands-on experience to be successful in the agricultural industry.

Connection to Other Programs
Kentucky State University currently offers a pre-engineering track in the Applied Mathematics program. The new program will elevate the existing track to its own program in Biological and Agricultural Engineering. KSU employs a number of doctoral-prepared faculty with research expertise in the biological and agriculture foundations including physics, chemistry, food science, soil science, and agribusiness, who will continue to offer pre-requisite coursework for the students in the first year of their studies. These faculty will also serve as potential research mentors during the capstone sequence.

A similar program exists at the University of Kentucky. Representatives from both institutions have met and discussed opportunities for collaboration and the University of Kentucky is supportive of the proposed program.

Student Demand
Initial estimates of enrollment are:
Year 1 – 20
Year 2 – 40
Year 3 – 60
Year 4 – 80
Year 5 – 100

Employment Demand
Employment in the field is projected to grow 6% from 2022 to 2032, faster than the average for all occupations. About 3,400 openings for environmental engineers are projected each year, on average, over the decade. A recent evaluation showed the median annual wage for environmental engineers was $96,530. Heightened public awareness of the hazards facing the environment is expected to support demand for environmental engineers. For example, these workers are needed to design solutions to improve water and air quality and to improve access to clean drinking water.

Budget
Kentucky State University is in the process of hiring two faculty members. Many existing faculty will be teaching the same classes they are currently teaching in the new program. Funding will be supported by a USDA grant.

Projected Revenue over Next Five Years ($):	$ 6,678,940
Projected Expenses over Next Five Years ($):	$ 1,799,448

PROPOSED PROGRAM SUMMARY

Institution: Kentucky State University
Program Name: Manufacturing Engineering Technology
Degree Destination: Bachelor of Science

CIP Code: 15.0613
Credit Hours: 120
Implementation Date: 8/1/2024

Program Description

The Manufacturing Engineering Technology program will prepare students to apply basic engineering principles and technical skills to the identification and resolution of production problems in product manufacturing. The program includes instruction in machine and production line operations, engineering and systems analysis, instrumentation, physical controls, automation, computer-aided manufacturing (CAM), and manufacturing planning and quality control. The program will seek accreditation by the Accreditation Board for Engineering and Technology (ABET).

Kentucky State University has several partnerships with secondary schools that are requesting this engineering pathway. In addition, KSU has current KCTCS partnerships with Jefferson Community and Technical College and Bluegrass Community and Technical College, which will provide a smooth transfer pathway for those students who desire a baccalaureate degree.

As a result of this program, graduates will be able to:

- apply knowledge, techniques, skills, and modern tools of mathematics, science, engineering, and technology to solve engineering problems;
- design systems, components, and processes to address engineering problems;
- conduct standard tests, measurements, and experiments, analyzing and interpreting the results to improve processes; and
- function effectively as a team member and leader, apply written, oral, and graphical communication in broadly defined technical and non-technical environments, and identify and use appropriate technical literature.

A unique aspect of this program is the two-semester capstone project, which requires application of a solution to a real-world problem. The capstone experience provides hands-on experience. During this process, students will be guided by a senior faculty advisor and/or in collaboration with an industry advisor.

Connection to Other Programs

This program will enhance the pre-engineering and other programs at Kentucky State University. New courses will be created, which will serve students in this program and in existing

programs, and some existing courses will be slightly retooled for this program. There are faculty across the institution who will serve as mentors, based upon a student's specific capstone project.

Similar programs exist at Morehead State University, Murray State University, Northern Kentucky University, and Western Kentucky University. Kentucky State University's program will include a focus on culturally relevant practices. It will be particularly attractive to students seeking an education from a historically black colleges and universities.

Student Demand

Initial estimates of enrollment are:

Year 1 – 20

Year 2 – 40

Year 3 – 60

Year 4 – 80

Year 5 – 100

Employment Demand

Graduates are expected to enter the workforce immediately upon graduation. The median annual wage for industrial engineering technologists and technicians is approximately $61,210 and employment opportunities are projected to grow 3% over the next decade. About 6,500 openings for industrial engineering technologists and technicians are projected and employers may prefer to hire candidates who have completed an ABET-accredited program.

Budget

Two faculty members will be hired to teach in the new program. Existing faculty will continue to offer prerequisite coursework for first-year students in the program. Seed funding for 75% of the instruction and operation costs for the first three academic years are provided through a program incentive with the Management Improvement Plan.

Projected Revenue over Next Five Years ($): $ 6,678,940

Projected Expenses over Next Five Years ($): $ 1,799,448

PROPOSED PROGRAM SUMMARY

Institution: Kentucky State University
Program Name: Cybersecurity
Degree Destination: Bachelor of Science

CIP Code: 43.0404
Credit Hours: 120
Implementation Date: 8/19/2024

Program Description
The Cybersecurity program will be a dynamic and comprehensive educational experience that prepares students for the challenging and rapidly evolving field of cybersecurity through theoretical knowledge, practical applications, real-world scenarios, and an ethical mindset, all of which are required to navigate the complex and ever-evolving landscape of cybersecurity. The courses within this program use and or align with the standards set forth by the Accreditation Board of Engineering and Technology (ABET). The program will be available entirely online and is designed for students to enter the workforce upon graduation.

The courses within this program will also align with the standards set forth by the National Centers of Academic Excellence in Cybersecurity (NCAE-C), managed by the National Security Agency's National Cryptologic School in partnership with a number of federal agencies. The NCAE-C provides three possible designations to certain institutions based on their curricula (Cyber Defense, Cyber Research, and Cyber Operations). KSU's coursework will make it eligible to receive the Cyber Defense designation.

As a result of this program, graduates will be able to:

- write basic programs in languages such as Python, R, and C++ and comprehend programming syntax, data structures, and algorithms;
- understand and develop network protocols for network security, create programs to analyze network traffic and detect anomalies, and use defense-related network monitoring and intrusion detection tools;
- develop custom security tools to address specific cybersecurity challenges, create tools for penetration testing, forensics, and incident response, and understand the ethical considerations in tool development and usage; and
- foster collaboration and teamwork in cybersecurity programming projects, work effectively in teams to design and implement cybersecurity solutions, participate in open-source projects, and otherwise contribute positively to the cybersecurity community.

Connection to Other Programs

There is an existing Bachelor of Science in Computer Science at Kentucky State University, which has a track in Cybersecurity; Kentucky State also offers a Cybersecurity certificate. There are also existing collaborations in place with the National Security Agency, Bluegrass Community and Technical College, the University of Louisville, the Louisville Metro Government.

Student Demand

Initial estimates of enrollment are:

Year 1 – 20

Year 2 – 40

Year 3 – 60

Year 4 – 80

Year 5 – 100

Employment Demand

A faster-than-average job growth rate is projected for information security analysts, particularly through the ongoing digital transformation of businesses and increasing cyber threats. There are nearly 600,000 unfilled cybersecurity jobs in the United States now and about 3.5 million open roles globally. Most salaries of information security analysts range between $63,800 and $99,400, with top earners in Kentucky making $118,119 annually.

Budget

Kentucky State University plans to hire one faculty member. The existing content and coursework in Cybersecurity has lessened the need for additional hires. Instructional costs and marketing of this program was built into the online programming budget for KYSU Online, which is funded through an incentive of the Management Improvement Plan.

Projected Revenue over Next Five Years ($): $ 2,828,000

Projected Expenses over Next Five Years ($): $ 2,135,520

TITLE: New Academic Programs Approved at KCTCS

DESCRIPTION: Staff have approved one AAS program proposal from KCTCS institutions between January and June 2024 in accordance with the program approval process. No future action is necessary from the Council.

STAFF CONTACT: Melissa Bell, Ph.D., CPE's Vice President of Academic Excellence

SUPPORTING INFORMATION

KRS 164.020 (15) empowers the Council to define and approve the offering of all technical, certificate, diploma, associate, baccalaureate, graduate, and professional degree at public postsecondary institutions. It also mandates that the Council expedite the approval of requests from KCTCS for new programs of a vocational-technical and occupational nature.

PROGRAM APPROVAL PROCESS FOR KCTCS INSTITUTIONS

Associate degree programs of a vocational-technical-occupational nature undergo the following process for approval:

- KCTCS posts a proposal to the program approval system. Institutions and Council staff have 30 days to respond.
- If no issues are identified, the program is approved by Council staff and reported as an information item to the Council.
- If issues are identified, the institution addresses those through the program approval system, and the review period is extended. Once the issues are resolved, the program is approved by Council staff and reported as an information item at the next Council meeting.

APPROVED PROGRAM AT KCTCS

Council staff have reviewed and approved the following program. No further action is needed.

Owensboro Community and Technical College
- AAS, Professional Studio Artist - Bluegrass and Traditional Music (CIP 50.0201) - The program is designed to prepare students to work in the field of Bluegrass music as musicians, small business owners, and technicians. In addition to music instruction in a variety of Bluegrass instruments, students will take coursework in songwriting, recording

and business. Owensboro was named the Bluegrass Capital of the World in 2022 and is home to numerous Bluegrass music events and, by extension, Bluegrass music-related businesses. This program will build upon the region's reputation in the field of Bluegrass music.

TITLE: GEAR UP Kentucky Update – June 2024

DESCRIPTION: CPE staff provides its annual update on the GEAR UP Kentucky grant
                         and its initiatives.

STAFF CONTACT: Kim Welch, Executive Director, GEAR UP Kentucky

BACKGROUND INFORMATION

In October 2018, CPE was awarded its fourth state GEAR UP grant, a seven-year, $24.5 million
grant by the U.S. Department of Education. The mission of GEAR UP Kentucky (GUK) is to
increase the number of Kentucky students in low-income communities who are ready to
successfully transition to and through postsecondary education. GUK does this by providing
services and support that prepare the whole student, and engaging and equipping their families,
institutions and communities to support and sustain student success.

The project currently serves 5,130 high school students in 12 school districts and 504 college
freshmen at nine public colleges and universities (EKU, MoSU, NKU, KSU, UofL, GCTC, BCTC,
ECTC and Maysville CTC).

Participating students receive postsecondary transition readiness curricula, college and career
advising, college readiness assessments, tours and summer programs on college campuses,
career-focused field trips, leadership development programs, and postsecondary transition
coaching and support.

GEAR UP Kentucky will enter its final year of implementation in the 2024-25 school year. Staff
will overview services provided over the last year, share upcoming initiatives, and highlight
quantitative and qualitative data on project outputs and outcomes, including increases in college
applications, FAFSA completions, high school graduation and college enrollment of participating
students.

GEAR UP Kentucky Update

CPE Academic Strategic Initiatives Committee

June 10, 2024

Kim Welch, Executive Director

KEY OBJECTIVES

3. Increase students' readiness to enter postsecondary education.

4. Increase enrollment in postsecondary education.

Kentucky will ensure more students transition to college prepared to succeed.

STATE-LEVEL STRATEGIES
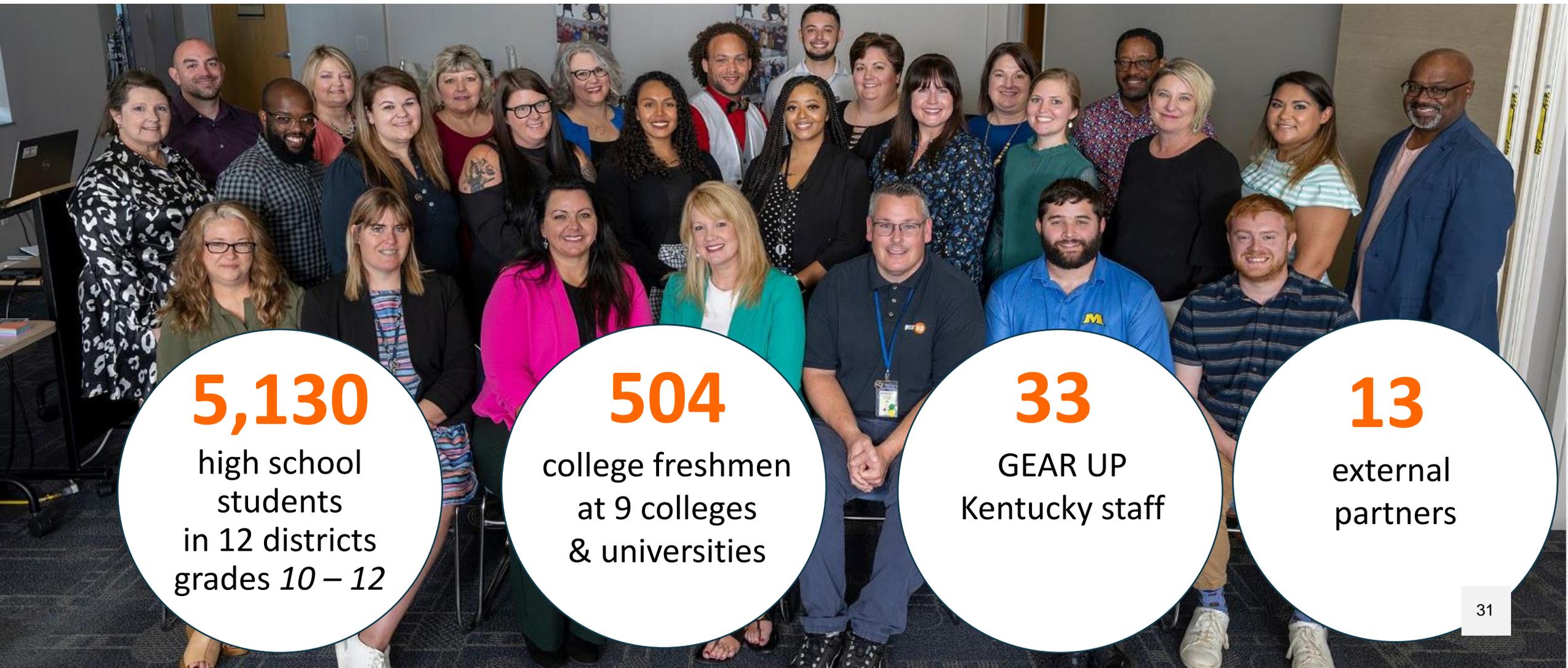
Increase Students' Readiness

3a. Expand access to high-quality, early postsecondary opportunities.

3b. Develop digital resources to help students explore career interests and college options.

3c. Partner with public K-12 schools and postsecondary institutions to provide outreach to students to help them prepare and plan for college

Increase Enrollment

4a. Enhance college recruitment strategies through partnerships with postsecondary institutions and other stakeholders, with attention to underrepresented minority, adult and low-income students.

4b. Work with education providers to streamline and simplify postsecondary admission processes.

WHO WE ARE

5,130 high school students in 12 districts grades *10 – 12*

504 college freshmen at 9 colleges & universities

33 GEAR UP Kentucky staff
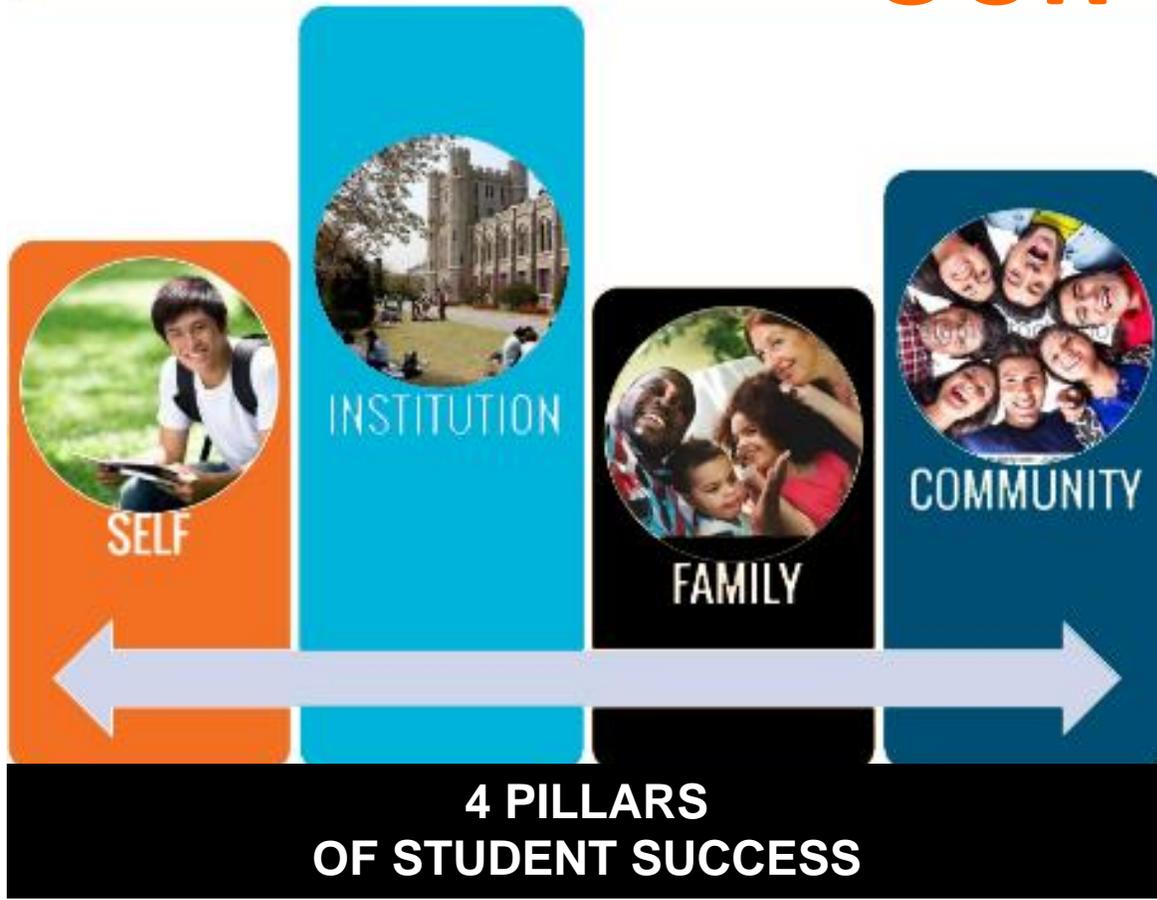
13 external partners

OUR VISION

4 PILLARS
OF STUDENT SUCCESS

SELF
INSTITUTION
FAMILY
COMMUNITY

EVERY STUDENT PREPARED FOR POSTSECONDARY SUCCESS

Financially
Academically
Culturally
Emotionally
Socially

WHAT WE DO

institutions
- PROFESSIONAL DEVELOPMENT
- LEADERSHIP DEVELOPMENT
- PEER LEARNING
- ASSESSMENTS & TECHNOLOGY

self
- CURRICULA
- ADVISING & ASSESSMENTS
- CAMPUS EXPERIENCES
- LEADERSHIP DEVELOPMENT

community
- COMMUNICATIONS CAMPAIGN
- PARTNERSHIP DEVELOPMENT
- STATEWIDE INSTITUTE
- LEADERSHIP DEVELOPMENT

family
- COMMUNICATIONS & OUTREACH
- ADVISING & SUPPORT
- CAMPUS EXPERIENCES
- LEADERSHIP DEVELOPMENT

EVERY STUDENT PREPARED FOR POSTSECONDARY SUCCESS

Financially
Academically
Culturally
Emotionally
Socially

gear up kentucky

33

2023-24 Outputs: STUDENTS

ADVISING
4,268 students
17,975 hours

CAMPUS VISITS
734 students
4,052 hours

CURRICULA
4,714 students,
16,145 hours

CAREER-FOCUSED FIELD TRIPS
138 students
678 hours

TRANSITION COACHING
134 students
171 hours

PEER LEADERSHIP PROGRAMS
420 students
1,501 hours

2023-24 Outputs: STUDENTS

366 Student Ambassadors

12 GUK Students of the Year

18 Student Ambassador Council members

18 Seniors registered for GU Scholar Academy @BCTC

40 Students selected for Summer Academy@NKU

3 NCCEP Youth Leadership Institute participants

2023-24 Outputs: STUDENTS

36

students participated in a 3-week residential Summer Academy at Morehead State University in summer 2023, **each completing 3 hours of free college credit.**

2023-24 Outputs

FAMILY

ADVISING
800 family members
849 hours

COMMUNICATION & TEXT OUTREACH
4,005 family members
148 hours

INSTITUTION

ASSESSMENTS
8 schools
administered CERT

PROFESSIONAL DEVELOPMENT
249 school staff
232 hours
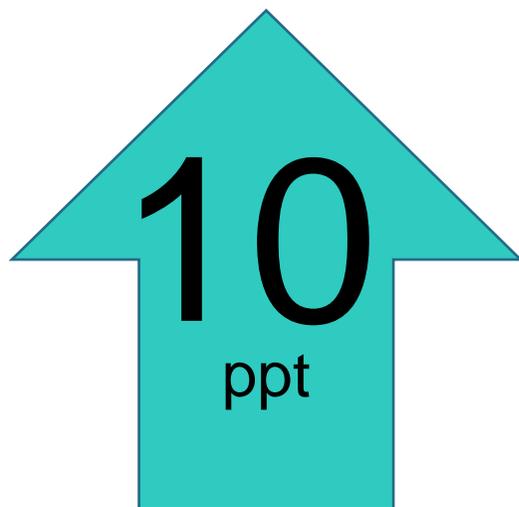
COMMUNITY

MEDIA CAMPAIGN
98,343 TV and
radio PSAs

ANNUAL INSTITUTE
179 attendees

2023-24 OUTCOMES

COLLEGE APPLICATION RATE

10 ppt ⬆

2020	2021	2022	2023	2024
31%	50%	51%	61%	70%

- The percentage of GUK Class of 2023 seniors who submitted at least one college application increased 10 ppt.

- 75% of GUK high schools increasing their rate by at least 4 percentage points, including double digit increases at 5 schools.

2023-24 OUTCOMES

FAFSA COMPLETION RATE

Graduation Year	2019	2020	2021	2022	2023
GUK	53%	58%	51%	54%	59%
KY	59%	58%	52%	54%	59%
U.S.	56%	54%	52%	54%	55%

As of end of July each year; Source: Office of Federal Student Aid (GUK), National College Access Network (KY & US)

2023-24 OUTCOMES

HIGH SCHOOL GRADUATION RATE

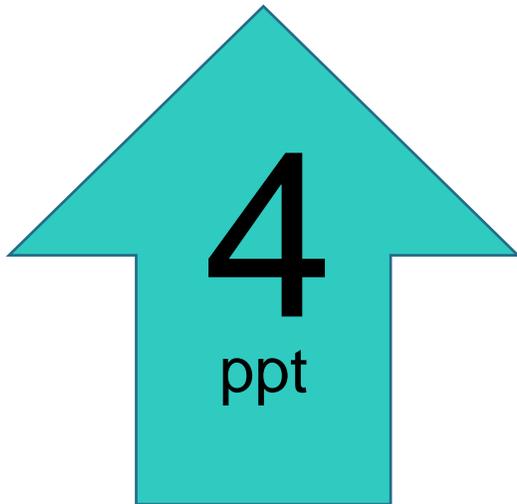| Graduation Year	2019	2020	2021	2022	2023
GUK	96%	94%	95%	93%	94%
KY	91%	91%	90%	91%	91%

- 11 of 12 GUK high schools exceeded the statewide graduation rate in 2022-23
- GUK's program-wide average high school graduation rate has exceeded the KY statewide rate for the past 5 years.

2023-24 OUTCOMES

COLLEGE ENROLLMENT

Graduation Year	2019	2020	2021	2022	2023
GUK*	46%	50%	45%	49%	53%
KY	58%	57%	52%	53%	N/A
KY Low Income	45%	42%	39%	41%	N/A

- In 2023, 6 of 12 GUK high schools increased their college-going rate by at least 2 ppt
- 3 GUK high schools increased by at least 18 ppt
- *GEAR UP reports only immediate fall enrollment*

4 ppt

Coming this summer

- FAFSA outreach and summer melt support

- NKU Summer Academy

- GEAR UP Scholar Academy @BCTC

- 5 NCCEP presentations

- GUK5 grant proposal planning

TITLE: CLIMB Convening 2024 Recap

DESCRIPTION: CPE staff will recap the CLIMB Convening, held on May 14, 2024, at The Campbell House in Lexington, Kentucky.

STAFF CONTACT: Leslie Sizemore, Assoc. Vice President, Workforce and Economic Development

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BACKGROUND INFORMATION

The CLIMB Health initiative, funded by the Cabinet for Health and Family Services, establishes career ladders in mental and behavioral health for individuals with lived experience in addiction recovery. It promotes higher education-led opportunities for workforce re-entry and encourages healing for the Kentucky communities most affected by the effects of drug abuse and addiction.

To further facilitate this collaboration, CPE hosted is first CLIMB Convening on May 14, 2024. It was held at The Campbell House in Lexington, Kentucky, and the in-person event brought together over 150 attendees to learn about and celebrate the work that CLIMB-Health has accomplished since its launch in 2023.

The event featured keynotes from state leaders shaping the work that allows adults to contribute to an economically stable Kentucky, and numerous networking opportunities among and with industry, government, and postsecondary education partners. The full agenda can be viewed at: https://cpe.ky.gov/events/climb/agenda.html

TITLE: Mid-term Review of the 2022-30 Statewide Strategic Agenda

DESCRIPTION: CPE staff will discuss the three-year mid-term review process of the 2022-30 statewide Strategic Agenda.

STAFF CONTACTS: Lee Nimocks, Sr. Vice President and Chief of Staff
Travis Muncie, Executive Director, Data and Advanced Analytics
Melissa Young, Executive Director and Chief Writer, Communications

BACKGROUND INFORMATION

The CPE is directed by KRS 164.020 to develop a statewide strategic agenda for the public postsecondary education system and revise it on a regular cycle. The agenda identifies statewide priorities and a vision for long-term economic growth by improving the education and skill levels of Kentucky's workforce. The agenda sets performance goals for students and institutions that reflect high expectations and standards, emphasize continuous improvement, and support technology-based solutions and innovative practices.

AGENDA & MID-TERM REVIEW

The Council's statewide strategic agenda for 2022-30, "Higher Education Matters," relies on the contributions of many constituencies and committees - including CPE board members, higher education leaders, faculty members, students, K-12 educators, legislators, employers and partners - that provide valuable insight and direction throughout the development process.

The agenda was approved by the Council at its November 2021 Council meeting, and campus metric goals were established in early 2022. Because the plan extends over nine years, staff built in a review process that would allow for necessary adjustments every three years (in 2024 and 2027).

Over the last three years, staff have monitored implementation at the campus level and engaged in a variety of statewide initiatives to advance progress. At this meeting, the Committee will receive an update on the review timeline and next steps.

Statewide Strategic Agenda Mid-Term Review

2024

Complete by	Activity
June 7	Begin scheduling meetings with institutional research staff (KPI & targets), internal work groups, and campus plan liaisons
June 10	Update to ASI Committee (MY/TM)
July	Data, Research and Advanced Analytics meets with IR staff to determine KPIs and create initial baselines and targets
July-Aug.	Melissa Young meets with Internal CPE workgroups and campus liaisons to review SA objectives/strategies and campus action plans
August	Negotiate KPI targets
Aug. 20	Update to Executive Leadership for review/discussion
Sept. 9	Update to ASI committee (MY/TM)
Nov. 1	Campus Action Plans due
Nov. 11	Present suggested SA and KPI revisions and targets to ASI Committee for approval
Nov. 22	CPE Board approves revised SA and KPIs with targets

TITLE: Bet the Trifecta: Dual Credit Promotes Matriculation, Success and Completion

DESCRIPTION: CPE staff will highlight efforts to increase participation and access to dual credit opportunities from its latest research on the efficacy of dual credit in Kentucky.

STAFF CONTACT: Dr. Chris Ledford, Associate Director, Data and Advanced Analytics
Dr. Robin Hebert, Senior Fellow, K-12 Polices and Programs
Adam Blevins, Senior Associate, Data and Advanced Analytics

BACKGROUND INFORMATION

Starting strong out of the gates typically leads to a good race. Does this apply to participation in early postsecondary opportunities and, ultimately, succeeding in college and crossing the finish line with a credential? Previous CPE and national research suggest the answer to this question is an unequivocal "yes." Accordingly, CPE and partners around the state have worked tirelessly to increase participation in and access to dual credit opportunities.

At the meeting, CPE staff will highlight those efforts and present the latest findings on the efficacy of dual credit in Kentucky.

The analysis reveals stark and substantive evidence that dual credit continues to be a great wager for the Commonwealth and its aspiring students. In recent years, dual credit enrollment and hours earned have increased over 50 percent. Compared to their peers, dual credit students have been far more likely to matriculate and continue the race. Further, they have been more successful than their college peers in the postsecondary race and more likely to reach the finish line. In sum, expanding dual credit participation across demographic groups continues to be a great tool to boost postsecondary access and progress toward Kentucky's 60x30 attainment goal.

Future updates will present findings from inferential models that estimate the effect of course context on dual credit outcomes and inform data-driven decisions promoting success of the Commonwealth's dual credit policy.