

Campus Name: Wright State University, Dayton Campus

Project Number: 1

Project Title: Campus-Wide Classroom Modernization & Maintenance

Biennium: 2015-2016

1. Project Description:

The project will include a study of the existing classroom inventory to identify and prioritize spaces in need of renovation based upon enrollment trends, utilization rates, technology requirements, and new learning models, including active learning classrooms and on-demand learning. Existing spaces to renovate include general classrooms, tiered classrooms, and rooms to be transformed into active learning environments. This will affect many existing facilities on campus including Fawcett Hall, Oelman Hall, Creative Arts Center, Math and Microbiology Building, and Allyn Hall.

2. Explain why this project is a priority:

It is a priority for Wright State University to continue to build world-class facilities in which to teach world-class courses. Older, existing classrooms must continually be updated and upgraded in order to meet the goal of world-class facilities. It is very common for an institution's focus to be on new facilities, but Wright State does not want the existing facilities to fall behind. All students should expect the same world-class classroom facilities regardless of the age of the individual building in which the classroom is being housed.

3. Explain how the project fits in with the Funding Commission's guiding principles:

Over the last several years, Wright State has focused on maintaining the investments the state has already made in existing Wright State facilities while also building new facilities that are world-class, and we desire to keep our existing classroom facilities up to the same level to house world-class programs. Additionally, the conversion of existing classroom and lab space into an Active Learning classroom with a focus on student success interactions will increase retention in entry-level psychology courses, specifically. Active Learning classrooms not only improve student outcomes, but increase retention.

4. Explain the economic benefits to the state or region resulting from the project:

Building world-class university programs increases potential student attention and increases existing student retention. With more than 100,000 degrees awarded from Wright State to students in its 16-county footprint, Wright State is well-positioned to attract and keep graduates in Ohio's workforce.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

Renovations to a pool of Wright State University classrooms have been determined as needing updates and upgrades will benefit a large part of the nearly 16,000 students on the Dayton campus. Many, if not all students will have classes at some point in their academic career in the existing classrooms determined to require renovation

6. Provide a demonstration of the need for the project:

Many of the classrooms being studied for extensive updates and upgrades have not been renovated since the original construction of the buildings in which they are housed (going back decades). Many of them no longer maintain a proper atmosphere for a learning environment. Many rooms no longer work well with modern and innovative teaching and learning methods and pedagogies, or technologies. Three classroom renovation projects will convert old classrooms into Active Learning environments to benefit students in the STEM disciplines and Teacher Education programs in the College of Education and Human Services. The Teacher Education program alone will benefit from being able to teach students the innovative technologies and pedagogies

7. Describe, in detail, the location the project:

The location for the project is throughout the Dayton campus of Wright State University. Many of the older structures on campus will be part of the project including: Fawcett Hall, Oelman Hall, Creative Arts Center, Math and Microbiology Building, and Allyn Hall.

8. The benefits expected to result from the project:

Wright State feels this project is vital to insure that all students receive the same world-class instruction in world-class facilities. There should be no disparity between classroom facilities because of the age of the facility in which they are housed. Students and faculty that learn and teach in the classrooms being updated and upgraded will be the beneficiaries. The benefits will be greatly improved learning environments for all.

Campus Name: Wright State University

Project Number: Project 2

Project Title: Student Union Transformation: Veterans, Career & Graduate Gateway

Biennium: 2015-2016

1. Project Description:

The goal of this project will be to transform the 2nd and 3rd floors of the Student Union to support the mission of the university's one-stop centers—defined as “gateways”— that serve students along three critical points on the path to completing their degrees and entering Ohio's workforce. One such gateway, the Welcome Center, was recently (September 2013) completed on the first floor of the Student Union. A second gateway, the Student Success Center and Academic Building, serves to increase student retention and boost student and faculty interaction, and will be completed in early 2015.

The proposed space modernization on the second and third floors in this project will encompass a single gateway for international students (University Center for International Education and the Wright State International Gateway); a Veterans Center; and a gateway to assist students who are completing degrees in meeting their post-graduation career and educational goals, as well as linking employers to graduates. The latter encompasses the Graduate School at Wright State and Career Services, as well as a new Professional Development center aimed at linking students to internships and the needs of employers.

2. Explain why this project is a priority:

This project's priority stems from Wright State's strategic goal of Student Access and Educational Attainment. It is critical for Ohio and Wright State that students be equipped with pathways for their post-graduation goals, with the goal of retaining talent in Ohio. This project expands the second and third critical point in college students' path to completing a degree and finding employment in Ohio. With the first floor focusing on intake, the Student Success Center under construction and this renovation project focusing on retention, the second and third floor serving diverse populations of students—particularly Veterans and Military students—continuing their academic careers at Wright State and transitioning all students into employment in Ohio, Wright State will be equipped to bring students past the finish line of their degrees. The second floor will focus on student development by capitalizing on two of the most expanding groups of students on campus, international and graduate students. The third floor will complete the vertical narrative of the student's needs at WSU by extending the development to the Veteran's Affairs group and then focus on the student's entry into the professional world with Career Services.

3. Explain how the project fits in with the Funding Commission’s guiding principles:

Help build world-class programs: This project helps to build world class programs at Wright State by creating gateways that directly target student success. Anticipated increases in student retention and improved student experience will only increase student success which leads directly to building the quality and reputation of the academic programs at Wright State. Improving student enrollment and continuing to develop the student’s experience on campus. It focuses on maintaining the investments the state has already made in existing campus facilities by renovating an existing portion of the Student Union and brings better access to existing departments and services to the students. The goal of the project is to renovate the existing building to provide instructional space representative of the world-class faculty, staff, students and alumni that have passed through the doors at Wright State. This transformation will continue the legacy that has been established at Wright State, leverages the already nationally known and recognized arts programs and Ohio Center for Excellence, and renovates and adds space that fits the quality of these programs

Focus on maintaining the investments the state has already made in existing campus facilities: By continuing the renovations that have already transformed the first floor of the Student Union into a world class space for student admissions and student services, this project will enhance the investments that have already been made in the building to support the Welcome Center Gateway.

Stimulate creativity by advancing strategic collaborations through partnerships, both on campus and with others in the public and private sector: By co-locating nearly a dozen different student service departments into a three story space focused on student success, collaborations are anticipated based upon each department utilizing the strengths of the others to create a comprehensive student success environment, and discover new ways to foster success and enhance the student experience.

Increase Ohio’s competitive advantage by capitalizing on our existing strengths: Wright State has a significant portion of international students and veteran students from the armed forces. This project recognizes their importance in the culture and success of the University, and will further enhance the opportunities for those students to receive services tailored for their needs as students.

Encourage joint efforts to reduce construction costs and generate ongoing efficiencies: The strategic placement of these related but different departments will create operational efficiencies as the departments realize opportunities to collaborate and utilize the skills of others in ways that had not been previously available.

4. Explain the economic benefits to the state or region resulting from the project:

Economic benefits will result from increased student retention as well as attraction of new students. WSU will be able to process and accept more graduate and international students, thus increasing the breadth and depth of our future alumni.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

This project should see an increase the university's ability to process a minimum of 90% more graduate and international student applications. The services offered by Career Services will benefit the entire student body. International, graduate, veteran, and most non-traditional students will all benefit from the renovation by locating all offered services in one convenient, efficient location on campus.

6. Provide a demonstration of the need for the project:

Currently the departments discussed above are located across multiple buildings on campus. These are student-centric services offered by WSU and will benefit from being located in the Student Union. Each department has highly specialized spatial needs that can be designed for in this proposed renovation. Wright State expects a large boost in efficiency by providing these departments with the space they need as well as providing for collaboration. This project also seeks to address several items of deferred maintenance as well as provide benefits to the students. Building envelope and plumbing systems need to be repaired and brought up to maintainable conditions.

7. Describe, in detail, the location of the project:

The project's location is above the front entry to the Student Union. This portion was an addition completed in the mid 1990's. Floors 2 and 3 are to be renovated.

8. The benefits expected to result from the project:

The primary benefit will be to increase enrollment and student retention at Wright State University. This will be accomplished by completing a 3-story narrative of Wright State's commitment to our students by recruiting, developing, and releasing into the workforce highly educated and prepared individuals. Other benefits are repairing and maintaining one of the campus's most important buildings.

Campus Name: Wright State University Dayton Campus

Project Number: Project 3

Project Title: Creative Arts Center: Modernization, New Media Incubator Transformation & Accessibility

Biennium: 2015-2016 Biennium

1. Project Description:

The Creative Arts Center (CAC) houses the three fine and performing arts departments at Wright State – Art & Art History; Music; and Theatre, Dance & Motion Pictures. These programs are nationally recognized and have collaborated to form the successful Ohio Center for Excellence in the Arts dedicated to Collaborative Education, Leadership and Innovation in the Arts, or CELIA. The CAC is now well into its fourth decade of existence and is becoming increasingly inadequate to serve the growing needs of the college and community. Plans now in place for a \$22.75 million renovation and expansion will increase the building's accessibility, technology, and course offerings as well as address deferred maintenance. The project also includes converting the existing Television Center building into a home for the nationally renowned Motion Pictures program. The project also proposes expanding this project already underway to repurpose existing space adjacent to the TV Center to house a "New Media Incubator." The program provides the framework for coalescing and expanding the synergistic cross-disciplinary programs of Motion Pictures and Mass Communication. New Media addresses emerging interactive forms of emerging communication technologies that will provide interactions for over 300 students, faculty, and staff in Motion Pictures and Mass Communication to expand their fields, foster collaborations, transcend disciplines, explore and develop future technologies, and continue to increase regional and state-wide economic impacts.

2. Explain why this project is a priority:

The CAC is a front door of the university, as many from the community visit to see performances and art exhibitions. Yet the building is too small, worn down, and has inadequate technology in high-tech fields. Programs have no room to grow enrollments despite high demand, or add new majors to keep up with new developments and regional needs. The CAC has clear issues with accessibility, organization and circulation, which will be solved with renovation and expansion. The expansion of renovation to include a New Media Incubator leverages Motion Pictures' and Mass Communication's use and development of new media to expand their fields and increase regional and statewide economic impacts. This includes but is not limited to the ongoing outreach to current media professionals in the field who need to return to update their skills to remain competitive. It will also provide a truly integrated learning experience essential for student success, support existing community and business partnerships, and increase economic growth and impact.

3. Explain how the project fits in with the Funding Commission's guiding principles:

Help build world-class programs: The goal of the project is to renovate the existing building to provide instructional space representative of the world-class faculty, staff, students and alumni that have passed through the doors at Wright State. This transformation will continue the legacy that has been established at Wright State, leverages the already nationally known and recognized arts programs and Ohio Center for Excellence, and renovates and adds space that fits the quality of these programs

Focus on maintaining the investments the state has already made in existing campus facilities: Transformations have already taken place in the CAC, addressing some of the performance spaces that allow for the display of the talents of Wright State's students and faculty, including the recent renovation of Schuster Hall. This project will build on those investments that have already been made by providing the necessary academic and training spaces to instruct and develop the talents and abilities of the students who utilize the performance venues. In addition, the project will also address deferred maintenance issues in order to preserve the quality of the spaces and programs.

Stimulate creativity by advancing strategic collaborations through partnerships, both on campus and with others in the public and private sector: The stated purpose of CELIA, an Ohio Center for Excellence, is to foster collaboration among Wright State's fine and performing arts programs and within the region. CELIA has been very successful in building new partnerships and expanding existing relationships with arts organizations in the region. The New Media Incubator is a collaboration between Motion Pictures and Mass Communication, as well as with strong community partners such as FilmDayton and Cox Media. Wright State's Motion Pictures Program has a strong economic impact on the region in collaboration with FilmDayton, a six-year old non-profit organization dedicated to developing area filmmaking and to bringing outside productions to the greater Dayton area. Two WSU faculty members serve on the FilmDayton Board of Trustees, including the co-founder. FilmDayton offers year round events and workshops, acts as a locus for outside film productions, and hosts a popular annual film festival. Mass Communication has strong connections to media in the region through Cox Media, an integrated broadcasting, publishing, and digital media company for the region and beyond. More than 87 Cox Media employees across the country earned their degree from WSU's Communication Department. Wright State communication majors recently published their 3,639th news story with the *Dayton Daily News* and the *Springfield-News Sun*; one of only a dozen such academic programs nationally whose students publish daily content for large, urban news bureaus. Students intern with Cox Media in all media forms and Cox Media helps provide training, equipment, and resource support for the program.

Reflect the needs of today's student by strengthening their learning environments, ensuring their safety and encouraging new degree and certificate completion opportunities: Arts students need updated, technologically advanced facilities to remain competitive. This project includes motion pictures production studios and editing suites, digital photography studios, an updated piano lab and many other upgrades. Renovations include enhancements to health and safety with new dance and stage combat studios with sprung floors, upgrades to theatre dressing rooms and also

accessibility improvements. The New Media Incubator fosters new collaborations and advances student training and innovation into future technological realms and prepares students to be competitive in the job market of the 21st century.

Increase Ohio's competitive advantage by capitalizing on our existing strengths: Wright State's nationally known arts programs constitute a flagship area for the university. CELIA is a recognized Center of Excellence for the state. The New Media Incubator is a collaboration between our highly successful and internationally known Motion Pictures program whose faculty have won academy awards and whose alumni have won awards at the Sundance Film Festival, amongst others; with our Mass Communication program which has extensive ties and collaborations with the Ohio's News Organization consisting of Ohio's seven largest major daily newspapers.

Strengthen our ability to respond to new or increased workforce development opportunities in the state: The New Media Incubator is focused on creating space that fosters cross-disciplinary collaborations between Motion Pictures and Mass Communications. This collaboration is critical to the development of the future workforce, as the line between media and communications is increasingly blurred, and media is increasingly becoming interactive at the consumer level, and demand for customizable mass communications grows. This space will develop synergies that allow for the transcendence of disciplines to explore, analyze, and create the new ideas and technologies for the future, leading to job creation and workforce development for future opportunities and needs rather than past or current needs.

Encourage joint efforts to reduce construction costs and generate ongoing efficiencies: The CAC renovation is a joint effort between the three fine and performing arts programs as well as the Ohio Center for Excellence in the Arts: CELIA. The New Media Incubator is a joint effort between the Motion Pictures and Communication programs to expand the mutual technological needs of each program within a synergistic framework to increase collaboration, idea sharing, and future growth and development.

4. Explain the economic benefits to the state or region resulting from the project:

Students who learn in the CAC become the arts professionals who make the region one of the leading mid-size city arts venues in the country and contribute to the \$25 billion impact the arts have on the state of Ohio. A vibrant arts community is a proven factor in attracting and retaining businesses and employers to the region. Ohio has seen steady growth in film production in recent years, fueled in part by the Ohio Legislature's and Governor Kasich's support for a tax incentive program which has brought major film productions such as THE AVENGERS to Ohio; that production alone reportedly spent \$30M in Ohio. Currently there are at least four out-of-town film productions planning film shoots in Dayton over the next six months.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

More than 70,000 students, neighbors and guests visit each year to study, enjoy concerts, theatre productions, and exhibitions open to the public in the CAC. The Wright State arts departments together constitute one of the university's primary vehicles for continuous community engagement. There are more than 750 students majoring in the arts programs housed in the CAC, and all will benefit from the project. The New Media Incubator will engage approximately 500 faculty, staff, and students per year, with the results of their labors feeding into community impact through emerging technologies and ideas.

6. Provide a demonstration of the need for the project:

The CAC is now well into its fourth decade of existence and is becoming increasingly inadequate to serve the growing needs of the college and community. Plans now in place for a \$22.75 million modernization and expansion will increase the building's accessibility, technology, and offerings to ensure that it continues to be a lure to recruit top-caliber artistic talent from across the country, serve as a showplace for the region's arts education and performance, and provide a spur for increased economic development. The base budget for the modernization and expansion of the Creative Arts Center is \$22,752,000. Of this, \$11M in local funding is projected, with the remainder coming from gifts. Approximately \$7M in gifts have been pledged.

7. Describe, in detail, the location of the project:

Wright State University's Creative Arts Center, TV Center, and surrounding areas in the basement of Dunbar Library.

8. The benefits expected to result from the project:

The programs housed in the CAC will be able to grow their enrollments: now the inadequate facilities limit the number of students able to major in these popular, high-quality disciplines. The university will gain a renovated and expanded building that will more fully symbolize the excellence of the WSU arts programs and their importance to the university and the surrounding community. The New Media Incubator will provide space, equipment, and resources necessary to support and increase these important collaborations while providing a truly integrated learning experience essential for student success, community and business engagement, and economic growth and impact. The New Media Incubator will foster integrated ideas, problem solving, and development of technologies for the future.

Campus Name: Wright State University Dayton Campus

Project Number: 4

Project Title: RSCOB Space Transformation: Data Analytics and Visualization Environment (D.A.V.E.)

Biennium: 2015-2016

1. Project Description:

Create a Data Analytics & Visualization Environment in the Raj Soin College of Business by modernizing the existing RFID Lab to fulfill the needs of education, research, and collaboration on data analytics. This project proposes to renovate and modernize the existing RFID lab and transform it to the proposed state-of-the-art Data Analytics & Visualization Environment. The current RFID lab was established in 2007, and occupies about 500 sq. ft. of space on the second floor. The lab currently has hardware, software and equipment that has an estimated purchase cost of \$250,000, funded partially via Ohio Board of Regents Grants and partially via in-kind donations from various organizations. By 2015 a majority of the equipment in the lab will not support the emergence of big data as an opportunity for Ohio.

The recent explosion of data created by sensors, mobile and embedded devices, and web interactions has created a new emerging field of “Big Data” and “Advanced Data Analytics” and a need for expert workforce in the industry. Such need requires Ohio’s universities to deliver relevant, effective, and forward-thinking educational programs to fulfill this industry gap. The goal of the proposed Data Analytics & Visualization Environment (D.A.V.E.) lab is to foster novel, transformative, and multidisciplinary activities in education and research. The lab will provide the technology necessary to support Big Data research and instruction, and build a pathway for collaboration between the Raj Soin College of Business and our partners in other colleges as well as industry. The lab will have the tools to satisfy the infrastructure needs for research activities on big data and advanced data analytics and visualization. The proposed D.A.V.E. lab will expand the existing RFID lab with potential for further expansion. This will be accomplished by modernizing the current lab space, as well as replacing the aging RFID equipment with advanced and the most effective technologies to support activities of education, research, and collaboration in the field of data analytics, data visualization, and big data computing. This will be performed in the following stages:

- Renovate and modernize the physical space to improve interior design including but not limited to energy-efficient lighting and more effective and productive workspaces;
- Improve the electrical, networking, and HVAC controls in the lab to support the new hardware;
- Purchase hardware and software for data analytics and data visualization; and
- Design and furnish the entire space for multi-purpose activities related to education, research, and collaboration.

2. Explain why this project is a priority:

There is a great level of urgency to advance our learning and knowledge on Big Data and Advanced Analytics and Visualization. These form the core knowledge and skills to become a “Data Scientist,” the “Sexiest Job of the 21st Century” (Harvard Business Review, October 2012). Employers and large companies recognize the role of this emerging expert field for quickly discovering deeper business insights and developing new data-driven products and business applications. The need for advanced data analysts is increasing. By 2015, big data demand will reach 4.4 million jobs globally, yet only one-third of these jobs will be filled (Gartner: Beyond Big Data, 2013). D.A.V.E. will be able to provide unique capabilities needed to prepare our students and future leaders with advanced data analytics and visualization skills. Having a state-of-the-art lab on campus will help attracting and retaining students in our programs, not only within the College of Business, but also across the University.

3. Explain how the project fits in with the Funding Commission’s guiding principles:

Help build world-class programs: Having been recently named to the Princeton Review’s Best Business Schools in the Country, this project will further a world class program by creating space to train students in the emerging markets of big data and analytics.

Focus on maintaining the investments the state has already made in existing campus facilities: The College of Business has previously invested in transformational spaces for student instruction by creating an award-winning trading room. This project is a continuation of transforming space that addresses the latest techniques and programs for future business leaders. The solicited funds will be used for the initial modernization of the lab. Once the lab is in operation, it will be largely self-funded and self-sustaining. It is possible that the lab will generate the revenue needed for further maintenance through the offered educational programs and potential industry collaboration.

Increase Ohio’s competitive advantage by capitalizing on our existing strengths: The College of Business has demonstrated experience in management information systems. An already established lab and faculty core will facilitate the training of students to be ready for an emerging labor market. The ability to leverage existing partnerships with local and international data analysis firms/businesses will be position Wright State and Ohio to capitalize on this opportunity. Wright State can also bring the visualization and semantic web talent in the College of Computer Science to the D.A.V.E for unprecedented collaboration to expand on opportunities.

Strengthen our ability to respond to new or increased workforce development opportunities in the state:

Big data, and the concentration of big-data centric companies in Ohio (TeraData, Proctor & Gamble, Reynolds and Reynolds), present an opportunity for Ohioans equipped with data analytics skills. Employers and large companies recognize the role of this emerging expert field for quickly discovering deeper business insights and developing new data-driven products and business applications. The need for advanced data analysts is increasing. By 2015, big data demand will reach 4.4 million jobs globally, yet only one-third of these jobs will be filled (Gartner: Beyond Big Data,

2013). Dayton's technology and R&D industries are predicted to have a growth rate of 9% by 2016. These jobs created will be high-skill, high wage positions. In addition, Dayton's job multiplier for the technology generator industries is 5.2, which means for each 1000 jobs created in the tech industry, the impact will result in a total of 5200 jobs.

4. Explain the economic benefits to the state or region resulting from the project:

The Dayton metropolitan area is one of the twenty-four areas recognized in the country by their strong and concentrated technology generator industries (State Science and Technology Institute, 2012). In particular, Dayton has a 25% higher tech industry concentration than the national average and is also higher than the state of Ohio. Dayton's technology and R&D industries are predicted to have a growth rate of 9% till 2016. These jobs created will be high-skill, high wage positions. In addition, Dayton's job multiplier for the technology generator industries is 5.2, which means for each 1000 jobs created in the tech industry, the impact will result in a total of 5200 jobs. The Dayton region has a number of high-tech and research centered companies such as Teradata, Procter & Gamble, Reynolds & Reynolds, etc. who are the industry's first movers in developing and adopting big data and advanced analytics technologies. With the rising need for Big Data experts and the growing high-skilled tech centered jobs, the education, research, and collaboration on Big Data and advanced data analytics will help creating immediate and long-lasting economic impact in the greater Dayton region.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

Students, faculty, scholars, scientists, and business and industry partners of the college and university will be the primary stakeholders of the new D.A.V.E. lab. The lab will foster novel, transformative, and multidisciplinary thinking and activities related to education, research, and knowledge transfer. It will be the leading environment on campus for experts of data analytics and visualization from various fields such as information systems, computer science, statistics, and other related domains.

- a. Students. The new D.A.V.E. lab will serve as the primary education space on campus where students will have access to the most comprehensive and valuable resources (hardware, software, data etc.) to learn and conduct hands-on activities related to data analytics and data visualization. This lab will support the possibility of a new inter-disciplinary Data Science (or Data Analytics) program that is offered jointly by multiple colleges (Business, Computer Science, and Science & Mathematics).
- b. Faculty. The D.A.V.E. lab welcomes faculty and scholar from multiple disciplines and domains to use the facility for teaching and research. Ultimately, faculty will be able to use this lab for teaching classes, conducting course projects, supporting personal research related to data analytics, and collaborating with other individuals and teams on data related subjects. More importantly, faculty can utilize the resources in this lab on grants and funding from public and private agencies.

- c. Industry. Collaboration with the industry, both small businesses and large organizations, on big data and business data analytics projects will become possible and more easily accessible with the new D.A.V.E. lab. A new model envisioned is that the lab will provide a physical space for faculty from WSU to meet and work with potential clients on projects that will eventually bring revenue to the college and the university. The lab will serve as a gateway for our industry partners to present and solicit solutions to business problems related to data analytics.

6. Provide a demonstration of the need for the project:

To educate our students, conduct research, and collaborate with our partners on Big Data and Advanced Analytics and Visualization, we need a capable and conducive teaching and research environment. Currently, no research labs or relevant facilities on campus are able to serve such purpose. Due to the highly interdisciplinary nature of this field, the Big Data environment needs to provide both technical capabilities for education and scientific research, as well as conveniently accessible resources for innovative business and managerial collaborations and activities. The Raj Sooin College of Business can become the natural home for the D.A.V.E. because of the established business impact of the current RFID lab, and the innovative culture of the college to educate and collaborate on new and promising topics that would benefit the higher education as well as the research and practice.

7. Describe, in detail, the location the project:

Wright State University, Dayton Campus
Raj Sooin College of Business, Rike Hall

8. The benefits expected to result from the project:

The D.A.V.E. will become a one-stop location for our students, faculty, and industry partners to receive education and training and conduct research and collaboration on Big Data and Advanced Analytics and Visualization. It will foster novel, transformative, and multidisciplinary activities by providing the most up-to-date hardware and software in data analytics and visualization and a productive environment for collaboration. The facility and program will also create new workforce development opportunities via a world-class program that will not only train a skilled workforce in big data to meet the needs of Ohio companies, but also attract students from outside Ohio and potentially companies attracted to this new workforce.

Campus Name: Wright State University Dayton Campus

Project Number: Project 5

Project Title: Deferred Maintenance – Russ Engineering Roof

Biennium: 2015-2016 Biennium

- 1. Project Description:** The scope of this project is to address the Deferred Maintenance and Infrastructure Replacement projects campus wide. Wright State University has a continued focus on rehabilitation of campus buildings that are in need of system upgrades to improve the deferred maintenance program. This direction presents the opportunity to reprogram space in these facilities. This systematic approach to a building system replacement program which analyzes life-cycle costs will help to offset costs for future operating budgets.
- 2. Explain why this project is a priority:** Wright State University's focus on award winning facilities has made the need for these deferred maintenance projects a priority. Often times project contingencies are spent repairing deferred maintenance issues found during demolition. To address these items as an independent project would allow for more cost effective solutions on a global campus scale.
- 3. Explain how the project fits in with the Funding Commission's guiding principles:** The state's investments in Wright State's Campus will help to maintain the investment the state has already made in the existing campus facilities. The roofing systems of many buildings on campus will need addressed with this funding with projects ranging from roof renovations to façade repairs to window and entry system replacements. By addressing the roofing systems in Russ Engineering and executing required renovations, this strengthens the student's learning environments while ensuring their safety. When managed in a systematic fashion, construction costs will be reduced and create more efficient buildings with the proper material selections.
- 4. Explain the economic benefits to the state or region resulting from the project:** Wright State has maintained a very reasonable and competitive tuition while developing preeminent academic programs. Award winning, well maintained facilities aid in recruitment and retention of the talent in the region and state.
- 5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:** The entire campus community including students, faculty, staff and visitors will benefit from the investment in updating the existing facilities.
- 6. Provide a demonstration of the need for the project:** Russ Engineering is the home of the College of Engineering at Wright State University. The building was constructed in the early 1990's and the original roof is now more than 20 years old and is showing signs of failure.
- 7. Describe, in detail, the location the project:** Deferred maintenance dollars will be spent to replace the roofing system on Russ Engineering building.
- 8. The benefits expected to result from the project:** By updating the roofing systems, the facilities will be given a new life for generations of Wright State Raiders yet to come.

Campus Name: Wright State University Dayton Campus

Project Number: Project 6

Project Title: Deferred Maintenance: Campus-Wide Facilities Assessment /Building Envelope Rehabilitation

Biennium: 2015-2016 Biennium

1. Project Description:

The scope of this project is to address the Deferred Maintenance and Infrastructure Replacement projects campus wide. Wright State University has a continued focus on rehabilitation of campus buildings that are in need of system upgrades to improve the deferred maintenance program. This direction presents the opportunity to reprogram space in these facilities. This systematic approach to a building system replacement program which analyzes life-cycle costs will help to offset costs for future operating budgets.

2. Explain why this project is a priority:

Wright State University's focus on award-winning facilities has made the need for these deferred maintenance projects a priority. Often times project contingencies are spent repairing deferred maintenance issues found during demolition. To address these items as an independent project would allow for more cost effective solutions on a global campus scale.

3. Explain how the project fits in with the Funding Commission's guiding principles:

The state's investments in Wright State's Campus will help to maintain the investment the state has already made in the existing campus facilities. The building envelopes of many buildings on campus will need addressed with this funding with projects ranging from roof renovations to façade repairs to window and entry system replacements. By addressing the building envelope needs campus wide and executing required renovations, this strengthens the student's learning environments while ensuring their safety across campus. When managed in a systematic fashion, construction costs will be reduced and create more efficient buildings with the proper material selections.

4. Explain the economic benefits to the state or region resulting from the project:

Wright State has maintained a very reasonable and competitive tuition while developing preeminent academic programs. Award winning, well-maintained facilities aid in recruitment and retention of the talent in the region and state.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

The entire campus community including students, faculty, staff and visitors will benefit from the investment in updating the existing facilities.

6. Provide a demonstration of the need for the project:

The building currently named Medical Sciences has undergone significant renovation in the last 4 years. Wright State University has transformed this building from the old Medical school library to include new classrooms, renovated a 400 seat auditorium and relocated the back-of-house student services staff to more efficiently serve the student body. However throughout these renovations the existing façade and entry system has begun to fail. The glass block facades, located in three entry towers, has begun to show signs of water infiltration by the glass block cracking and “exploding.” The solution to this facade issue will need to be addressed to ensure the students and staff are kept safe while learning and working in this facility.

7. Describe, in detail, the location the project:

The deferred maintenance projects are campus wide. Staffs from Facilities Planning and Development, Engineering & Construction and Physical Plant meet to evaluate the functionality of the campus grounds and building systems and make recommendations for repair to these systems. An ongoing list is maintained by the University of buildings that will require façade repairs, roof renovations, entry system replacements and window replacements. The integrity of the building envelope must be maintained in order for the building to continue to serve the students, faculty and staff. A study will be the first major component of this project to ensure that the University has identified all of the envelope repairs needed campus wide and to establish priorities for these projects.

8. The benefits expected to result from the project:

By updating the building envelopes campus wide, the facilities will be given a new life for generations of Wright State Raiders yet to come.

Campus Name: Wright State University Dayton Campus

Project Number: 7

Project Title: Shared Services – Salt Storage

Biennium: 2015-2016

1. Project Description:

The goal of this project will be to relocate the Grounds Maintenance Yard and provide a shared site for salt storage for WSU, local municipalities, and ODOT. The resources from each party will be combined to provide a more functional solution than any entity could produce on its own for the allotted cost. The City of Beavercreek, City of Fairborn, ODOT District 8, and Wright State University will share a 3,000 ton salt storage structure on the edge of WSU's campus. An ODOT truck storage structure will also be located on the site. This project will have shared funding from all parties involved and will provide a common point from which to strengthen the relationship between state, local, and WSU entities.

2. Explain why this project is a priority:

The current location of the Ground's Maintenance Yard hampers the expansion of the proposed zone of campus (assigned by the Master Plan) for public/private collaboration. The existing salt storage structure is insufficient for campus needs. It is near end-of-life and raises concerns about the environmental containment capabilities in the near future. By collaborating with other jurisdictions, WSU can take advantage of several budgetary cost savings as well as benefiting the surrounding communities.

3. Explain how the project fits in with the Funding Commission's guiding principles:

This project focuses on maintaining investments made by the state by improving the proposed site and increasing environmental containment and run-off capabilities. This project fosters partnership and collaboration between community and state entities in caring for and maintaining the roadways on campus and the surrounding area.

4. Explain the economic benefits to the state or region resulting from the project:

WSU will be providing and maintaining the land for ODOT's new salt storage structure. In return, WSU will be gaining a salt structure that can provide for our needs. Surrounding jurisdictions will also benefit from the facility by not being required to build or maintain new facilities to replace or increase capacity of existing salt storage structures.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

Wright State University, Ohio Department of Transportation District 8, City of Fairborn, and the City of Beavercreek will all benefit from the project. WSU will benefit in that it will be able to relocate its yard to a previously unbuildable site, providing room for profitable public/private partnership. It will have access to adequate road treatment resources and those resources can be properly maintained from an environmentally responsible aspect.

6. Provide a demonstration of the need for the project:

WSU has been able to market certain portions of property, which are attractive to private corporations, to local medical partners who are interested in in public/private collaborations. This hinges on relocating and remediating the current maintenance yard. The yard has become inadequate in size and configuration with keeping up with WSU's growth and environmental stewardship.

7. Describe, in detail, the location the project:

The location of the project is at the South West corner of the Raider Road and Wright State Road intersection, across the street from the Wright State Physicians building.

8. The benefits expected to result from the project:

The expected benefits will be increased opportunity to partner with local corporations. It will provide the opportunity remediate the existing site of the maintenance yard. It will provide a springboard for local and state entities to begin the collaboration process with the end-goal of increasing efficiency and cooperation between jurisdictions as well as reducing required budgets to build and maintain roadway maintenance/salt storage facilities.

Campus Name: Wright State University Dayton Campus

Project Number: 8

Project Title: Kinesiology and Health: Nutter Center Transformation

Biennium: 2015-2016

1. Project Description:

Renovate and convert the locker rooms on the second floor of McLin Gym into a multipurpose dance and activity room for Kinesiology and Health (KNH) courses to ensure the health and safety of participants, as well transform into an efficient use 3,100 square feet of underutilized locker rooms.

2. Explain why this project is a priority:

Recently the Department of Health, Physical Education, and Recreation, now called Kinesiology and Health, relocated to the Nutter Center. At the same time, demand on the Nutter Center's McLin Gym, the primary space used for many KNH courses, has increased from other users as the university has grown. The requested renovation will reduce compression on the McLin Gym on the lower level, a large gymnasium used by a variety of users, such as university-wide departments for events, Kinesiology for courses, and Department of Athletics. The repurposing of this space and relief on McLin Gym leads to greater opportunities for increasing revenues and reducing operating costs associated with utilizing other facilities. It also creates capacity for course offerings. The project also remediates safety issues by creating a safe flooring environment in the renovated space for classes with aerobic activity.

3. Explain how the project fits in with the Funding Commission's guiding principles:

This project focuses on maintaining investments made by the state in existing campus facilities, but primarily address the guiding principle of encouraging joint efforts to reduce construction costs and generate ongoing efficiencies.

4. Explain the economic benefits to the state or region resulting from the project:

The Wright State Nutter Center is commonly used by the community for hosting community events; recently, the McLin Gym and Nutter Center space exceeded capacity when the university hosted the 2013 Science Olympiad National Tournament, which attracted approximately 4,000 people to the region over a single weekend in May 2013, resulting in significant economic impact to the Dayton region. Providing dedicated space for KNH enables more flexibility in hosting such events for the community.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

Approximately 3,500 students participate in a combined 70 Kinesiology and Health course offerings that touch Nutter Center space per year.

6. Provide a demonstration of the need for the project:

The requested renovation will reduce compression on the McLin Gym on the lower level, a large gymnasium used by a variety of users, such as university-wide departments for events, Kinesiology for courses, and Department of Athletics. The repurposing of this space and relief on McLin Gym leads to greater opportunities for increasing revenues and reducing operating costs associated with utilizing other facilities. It also creates capacity for course offerings. The project also remediates safety issues by creating a safe flooring environment in the renovated space for classes with aerobic activity.

7. Describe, in detail, the location the project:

The location of the project is the second-floor locker room space in Wright State's Nutter Center.

8. The benefits expected to result from the project:

The benefits will be multifaceted in creating opportunities for increased revenues for the university as the project relieves compression on space, creating opportunities for increased class offerings, and improving the safety of students.

Campus Name: Wright State University Dayton Campus

Project Number: 9

Project Title: Math and Micro Renovation

Biennium: 2016-2016

1. Project Description:

Renovate and transform lab and classroom spaces on first and second floors of the Mathematics and Microbiology Building to update offices and classrooms not refurbished since the early 1980s. Many spaces are original and have not been renovated since the building was constructed in 1984, except for some minor modifications in 1992. Classrooms need updates for new teaching pedagogy. The project encompasses about 62 individual rooms and faculty offices, a departmental office suite, the Statistical Consulting Center office suite, seminar rooms and lounge, 2 program-specific classrooms, updates to bathrooms on first and second floor. The project also encompasses converting a remaining open lab floor plan to a traditional hallway with secure labs.

2. Explain why this project is a priority:

The Math and Micro Building has not seen updates since 1984. Transforming classrooms and faculty offices into more conducive learning environments will have a significant, positive effect on the quality of the student learning experience as students require significant individual attention in mathematics. Conversion of basement space from open lab floor plan will enable Microbiology to secure important equipment in an efficient manner.

3. Explain how the project fits in with the Funding Commission's guiding principles:

This project fits primarily the guiding principle of maintaining investments the state has already made in existing campus facilities by providing necessary maintenance, modernization, and other updates. It also reflects the needs of today's student by strengthening their learning environments by providing significantly improved space for improved teaching and learning.

4. Explain the economic benefits to the state or region resulting from the project:

Wright State has maintained a very reasonable and competitive tuition while developing preeminent academic programs. Award winning, well-maintained facilities aid in recruitment and retention of the talent in the region and state.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

Many of the more than 15,000 students at Wright State required to take a mathematics course will benefit from the improved learning environments created as a result of this project.

6. Provide a demonstration of the need for the project:

A few seminar classrooms date to the early 1980s, which is not conducive to the learning environment of hundreds of students each semester participating in mathematics courses.

7. Describe, in detail, the location the project:

Mathematics and Microbiology Building
Wright State University Dayton Campus

8. The benefits expected to result from the project:

The project will result in increased student retention and improved student learning outcomes in mathematics through improved classroom environment and better spaces for faculty-student interaction.

Campus Name: Wright State University Dayton Campus

Project Number: 10

Project Title: CECS: Innovation Design Learning Laboratory

Biennium: 2015-2016

1. Project Description:

The College of Engineering and Computer Science at Wright State University (WSU) requests \$1.3M in capital funds from the State for creation of an Innovation and Product Development Learning Laboratory. This facility will leverage additional \$1M through private, industrial, and federal funding sources. The project will result in an interdisciplinary facility to house educational projects focused on developing engineers trained to focus on applied innovative design targeting societally and economically impacting goals. The space will provide sustained available technician and resource support to students working on projects proposed and supervised by faculty, research lab, and industry partners.

In this space, a cross-disciplinary freshman lab used for the WSU Model for Engineering Mathematics will further enhancing student retention by exposing freshman to the wide array of student projects available to them.

This project leverages prior WSU faculty success in National Science Foundation and NASA educational funding along with various donations that have generated a wide variety of equipment resources that are currently underutilized because of lack of coordinated and consolidated supervision available to ensure safe usage and safety of the equipment.

The IDLL lab will be designed for flexibility and energy efficiency and will apply modern design philosophies for lab and manufacturing facilities. As a result, it will be a transformative, vibrant student space that will showcase the best of what our students can do, and how Wright State University is creating the workforce to meet Ohio's needs.

2. Explain why this project is a priority:

The IDLL is aligned with WSU's strategic and campus master plan development, will house state-of-the-art manufacturing and analysis facilities crossing various engineering disciplines and will serve as a beacon for retaining and attracting the highest caliber students from both the region and nation. It will also form a focal point to demonstrate our educational accomplishments to prospective donors and community leaders, raising our visibility in the community.

3. Explain how the project fits in with the Funding Commission's guiding principles:

The project accomplishes four guiding principles: Help build world-class programs; strengthen our ability to respond to new or increased workforce development opportunities across the state; stimulate creativity by advancing strategic collaborations through partnerships; and reflect the needs of today's student by strengthening their learning environments.

Students trained in this facility will be motivated by the realism of the resources and activities, as well as the interaction, advising, and endorsement of industry partners, and thus better trained to hit the ground running in the workforce. In doing so, the IDLL will become a major engine behind Ohio's innovation economy. It will complete the efforts of CECS in workforce development by extending upon the NSF CCLI funding that helped WSU raise the State of Ohio's prominence in transforming undergraduate engineering education, appending to the off-site education provided by our Ohio Means Interns and Coops funding, and our active placement activities by filling the gap between the classroom and work experience. It will further strengthen all of our CECS degree programs by promoting cross-disciplinary projects and cross-pollination of idea across students from diverse majors.

4. Explain the economic benefits to the state or region resulting from the project:

The IDLL will be a transformative, vibrant student space that will showcase the best of what our students can do, and how Wright State University is creating the workforce to meet Ohio's needs. It will also improve employers' ability to interact with potential talent, securing a workforce development pipeline out of the college and into Ohio's industry employers.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

6. Provide a demonstration of the need for the project:

System level modeling, design, and manufacture of advanced engine control technology for improved automobile fuel efficiency, and development of additive manufacturing processes requires such a space to enable

7. Describe, in detail, the location the project:

Russ College of Engineering and Computer Science building, bottom floor
Wright State University Dayton Campus

8. The benefits expected to result from the project:

The project will result in an interdisciplinary facility to house educational projects focused on developing engineers trained to focus on applied innovative design targeting societally and economically impacting goals. The IDLL will be a transformative, vibrant student space that will showcase the best of what our students can do, and how Wright State University is creating the workforce to meet Ohio's needs. It will also improve employers' ability to interact with potential talent, securing a workforce development pipeline out of the college and into Ohio's industry employers.

Campus Name: Wright State University Dayton Campus

Project Number: Project 12

Project Title: Deferred Maintenance

Biennium: 2017-2018 Biennium

1. Project Description:

The scope of this project is to address the Deferred Maintenance and Infrastructure Replacement projects campus wide. Wright State University has a continued focus on rehabilitation of campus buildings that are in need of system upgrades to improve the deferred maintenance program. This direction presents the opportunity to reprogram space in these facilities. This systematic approach to a building system replacement program which analyzes life-cycle costs will help to offset costs for future operating budgets.

2. Explain why this project is a priority:

Wright State University's focus on award winning facilities has made the need for these deferred maintenance projects a priority. Often times project contingencies are spent repairing deferred maintenance issues found during demolition. To address these items as an independent project would allow for more cost effective solutions on a global campus scale.

3. Explain how the project fits in with the Funding Commission's guiding principles:

The state's investments in Wright State's Campus will help to maintain the investment the state has already made in the existing campus facilities. The building envelopes of many buildings on campus will need addressed with this funding with projects ranging from roof renovations to façade repairs to window and entry system replacements. By addressing the building envelope needs campus wide and executing required renovations, this strengthens the student's learning environments while ensuring their safety across campus. When managed in a systematic fashion, construction costs will be reduced and create more efficient buildings with the proper material selections.

4. Explain the economic benefits to the state or region resulting from the project:

Wright State has maintained a very reasonable and competitive tuition while developing preeminent academic programs. Award winning, well maintained facilities aid in recruitment and retention of the talent in the region and state.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

The entire campus community including students, faculty, staff and visitors will benefit from the investment in updating the existing facilities.

6. Provide a demonstration of the need for the project:

The Natatorium located in the Student Union which is used by students, faculty and staff as well as hosts countless events including Varsity swimming and diving practices, NCAA swim meets, High School swim meets and practices, Kinesiology and Health classes, Group exercise classes, Army ROTC training, Youth camps, Swim Lessons, Outdoor recreation programming (kayak, paddle board) and Intramural sports programming (inner tube water polo). After years of heavy use, the pool deck structure and deck tile are in failure. Small cosmetic repairs to replace tiles have been ongoing but in order to continue to host these events and to safely serve the students, a major renovation is needed.

7. Describe, in detail, the location the project:

The deferred maintenance projects are campus wide. Staffs from Facilities Planning and Development, Engineering & Construction and Physical Plant meet to evaluate the functionality of the campus grounds and building systems and make recommendations for repair to these systems. An ongoing list is maintained by the University of buildings that will require façade repairs, roof renovations, entry system replacements and window replacements. The integrity of the building envelope must be maintained in order for the building to continue to serve the students, faculty and staff. Deferred maintenance dollars will be spent in the second biennium focusing on the following projects: Envelope Repairs as a continuation of the assessment from biennium 1; Student Union, Pool Deck and Tile Replacement; Russ Engineering, Fume Hood Controls; Student Union, Air Handler Replacements; Duke Ellis, Roof Renovation; Campus Wide, Relocate wells, treatment plant upgrades and electrical upgrades to meet current codes.

8. The benefits expected to result from the project:

By updating the building envelopes campus wide, the facilities will be given a new life for generations of Wright State Raiders yet to come.

Campus Name: Wright State University Dayton Campus

Project Number: 13

Project Title: Proteome Analysis Lab

Biennium: 2017-2018

1. Project Description:

The Proteome Analysis Laboratory (PAL) is committed to developing cutting-edge, protein, carbohydrate and lipid analysis techniques and protocols while expanding the foundation of scientific knowledge through courses and hands-on training for students, staff and faculty.

The PAL is a Wright State University facility designed for the analysis of protein/peptide expression, carbohydrates, lipids, and small molecules/compounds in cells, tissues and body fluids or from in vitro synthesis. It is located in the Pharmacology & Toxicology Dept. in the Health Sciences Building and is directed by Dr. David Cool. Two high-end mass spectrometers (MS) are at the core of the PAL, along with a confocal microscope, fluorescence microscope, phosphor, fluorescence and chemiluminescence imaging systems, centrifuges and protein separation equipment.

In order to increase the profitability and educational capacity of the PAL, significant changes should be made to improve the facility. These are:

- 1) Equipment
- 2) Cloud Data Server and Computer Labs
- 3) User Tracking Software
- 4) Space
- 5) Support for repair and upgrades

Training students at the MS and PhD level is one of the main missions of the Dept. of Pharmacology & Toxicology. Using cutting edge equipment such as the GC/MS, as well as other equipment in the PAL Facility, students and staff will be more competitive in the job market as well as for future

The PAL needs more laboratory space for teaching and equipment to support education and expand research opportunities. The addition of this equipment to the proteomic facility would provide opportunities for education.

Training of students and staff at WSU in the use of the equipment provides a unique educational experience that many other schools cannot provide. However, to make this possible, we need a permanent space that has open bench space for teaching up to 20 students at a time for both the research techniques course in the pharmacology and toxicology program and space for equipment with access to all sides for maintenance. A lab that could hold 20 students would greatly enhance our ability to teach techniques in our department.

The addition of this equipment to the proteomic facility would provide opportunities for education. Training students at the MS and PhD level is one of the main missions of the Dept. of Pharmacology & Toxicology. Using cutting edge equipment such as the GC/MS, as well as other equipment in the PAL Facility, students and staff will be more competitive in the job market as well as for future education. Students from the P&T department as well as other departments at WSU, clinical fellows from OB/GYN and staff from WSU have been trained to use the equipment. Future workshops on mass spectrometry and other techniques would provide more opportunities for training internal and external researchers. Summer workshops have been very successful at other institutions and we could capitalize on these with much of the technology available in our facility.

Likewise, the PAL equipment has been used to support numerous grants from WSU. I have written many letters of support for NIH, NSF, AHA, ADA, and DOD grants over the past 9 years. Some were funded, while others were unsuccessful. Support for these grants would be enhanced by having a more complete laboratory that would provide a broader scale of technology and functionality. Contract work for small biotech companies has also been a steady but smaller source of revenue for the PAL. We would expect more of this 'contract' type of work with WPAFB as well as small biotech groups that would use our facility for quality control.

Campus Name: Wright State University Dayton Campus

Project Number: 14

Project Title: Learning Community and Professional Development Center

Biennium: 2017-2018

1. Project Description:

A space that presents itself as an extended arm for business to train and recruit talents and enables Wright State to take a new collaborative approach to train our college graduates to be market-ready. The center allows students from multiple disciplines to engage in internship experience sharing, allows business partners and communities to participate in training and interacting with our students, and advances relationships between employers and business leaders to the center of faculty and students. Part of the cost of building this center will be shared by businesses and also sustained by a fee structure designed to be effective for businesses to take advantage of our facility. It will also house an evolution of Veterans, Career & Graduate Gateway from Biennium 1 as those services expand, into a standalone building focused on Career and Profession Development, focusing on a centralized, externally-facing gateway for internships, job placement, professional development programming (certification programs, CEUs, etc.) , the expansion of the Aerospace Professional Development Center, plus conference space.

The Center is to focus on market preparedness for our students with the focus to nurture cross-area training, encourage economic incubation, solidify experiential learning, and promote intellectual development within and across fields, and transform higher education from classroom to market. The space serve as an extended arm for business to train and recruit talent. It is evident that there is an increasing demand in the market place for cross-disciplinary training (e.g. entrepreneurs with both business and engineering background, medical providers who understand financial statements, startup artists run their own businesses). The global economy is demanding higher education to take a new collaborative approach to train our college graduates to be market-ready. With a concept that utilizes the college of business to be a steward in guiding the business model that engages an umbrella of colleges and Wright State's applied research arm, Wright State University is positioned to convert this concept into a reality. This Center is to provide a physical space to accommodate business partners and communities in training and interacting with our students.

The Center will:

- a. create business learning community across all disciplines on campus
- b. provide a physical home to connect business communities with our students and faculty
- c. train students with the mindset of cross-disciplinary and nurture creative thinking to identify business solutions
- d. shorten on-the-job training time to make students more market-ready
- e. provide the most efficient and effective human capital search opportunity
- f. transform higher education to bring back economic relevance
- g. cost effective solution for business to share facility of training candidates and identifying economic/business decision
- h. be easily expandable to allow k-12 students and post graduate candidates to participate

The Center will have a first mover advantage as the College of Business already has two important centers and personnel in place to support this endeavor. The Center for Economic Education and Small Business Development Center bring communities together for innovative and entrepreneur ideas. Many directors in RSCOB will provide synergistic benefits to connect employers, faculty, and students. The Center can also serve the needs of the Aerospace Professional Development Center and Defense and Aerospace employer engagement, training, and skills development, something in high demand by industry and government partners.

Part of the cost of building this center will be shared by businesses and also sustained by a fee structure designed to be effective for businesses to take advantage of our facility.

Campus Name: Wright State University Dayton Campus

Project Number: 15

Project Title: College of Education and Human Services - Allyn Hall Renovation

Biennium: 2017-2018

1. Project Description:

While most of Allyn Hall was renovated in 2012, a single story wing of the building that has been serving as university swing space has not received modernization. The building will have programmed space as part of the proposed project. The renovation will allow for Human Services to relocate from the basement of the Creative Arts Center, which will allow that space to be reassigned to serve one of Wright State's Centers of Excellence.

Campus Name: Wright State University Dayton Campus

Project Number: 16

Project Title: Campus Wide Classroom Renovations

Biennium: 2017-2018

1. Project Description:

The project will include a study of the existing classroom inventory to identify and prioritize spaces in need of renovation based upon enrollment trends, utilization rates, technology requirements, and new learning models, including active learning classrooms and on-demand learning. Existing spaces to renovate include general classrooms, tiered classrooms, and rooms to be transformed into active learning environments. This will affect many existing facilities on campus including Fawcett Hall, Oelman Hall, Creative Arts Center, Math and Microbiology Building, and Allyn Hall.

2. Explain why this project is a priority:

It is a priority for Wright State University to continue to build world-class facilities in which to teach world-class courses. Older existing classrooms must continually be updated and upgraded in order to meet the goal of world-class facilities. It is very common for an institution's focus to be on new facilities, but Wright State does not want the existing facilities to fall behind. All students should expect the same world-class classroom facilities regardless of the age of the individual building in which the classroom is being housed.

3. Explain how the project fits in with the Funding Commission's guiding principles:

This is a continued focus on maintaining the investments the state has already made in existing Wright State facilities. We are building new facilities that are world-class and we desire to keep our existing classroom facilities up to the same level to house world-class programs.

4. Explain the economic benefits to the state or region resulting from the project:

Economically, what is good for the Dayton region is good for the State of Ohio. Building world-class university programs increases potential student attention and increases existing student retention. Income flowing into the region from an ever-increasing number of university students continues to be one of the region's biggest economic stimulators.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

Renovations to a pool of Wright State University classrooms determined as needing updates and upgrades will benefit a large part of the nearly 16,000 students on the Dayton campus. Many, if not all students will have classes at some point in their academic career in the existing classrooms determined to require renovation

6. Provide a demonstration of the need for the project:

The need for this project is obvious. Many of the classrooms being studied for extensive updates and upgrades have not been renovated since the original construction of the buildings in which they are housed. Many of them no longer maintain a proper atmosphere for a learning environment. Many rooms no longer work well with modern and innovative teaching and learning methods and pedagogies.

7. Describe, in detail, the location the project:

The location for the project is all throughout the Dayton campus of Wright State University. Many of the older structures on campus will be part of the project including: Fawcett Hall, Oelman Hall, Creative Arts Center, Math and Microbiology Building, and Allyn Hall.

8. The benefits expected to result from the project:

Wright State feels this project is vital to insure that all students receive the same world-class instruction in world-class facilities. There should be no disparity between classroom facilities because of the age of the facility in which they are housed. Students and faculty that learn and teach in the classrooms being updated and upgraded will be the beneficiaries. The benefits will be greatly improved learning environments for all.

Campus Name: Wright State University Dayton Campus

Project Number: Project 17

Project Title: Deferred Maintenance

Biennium: 2019-2020 Biennium

1. Project Description:

The scope of this project is to address the Deferred Maintenance and Infrastructure Replacement projects campus wide. Wright State University has a continued focus on rehabilitation of campus buildings that are in need of system upgrades to improve the deferred maintenance program. This direction presents the opportunity to reprogram space in these facilities. This systematic approach to a building system replacement program which analyzes life-cycle costs will help to offset costs for future operating budgets.

2. Explain why this project is a priority:

Wright State University's focus on award winning facilities has made the need for these deferred maintenance projects a priority. Often times project contingencies are spent repairing deferred maintenance issues found during demolition. To address these items as an independent project would allow for more cost effective solutions on a global campus scale.

3. Explain how the project fits in with the Funding Commission's guiding principles:

The state's investments in Wright State's Campus will help to maintain the investment the state has already made in the existing campus facilities. The building envelopes of many buildings on campus will need addressed with this funding with projects ranging from roof renovations to façade repairs to window and entry system replacements. By addressing the building envelope needs campus wide and executing required renovations, this strengthens the student's learning environments while ensuring their safety across campus. When managed in a systematic fashion, construction costs will be reduced and create more efficient buildings with the proper material selections.

4. Explain the economic benefits to the state or region resulting from the project:

Wright State has maintained a very reasonable and competitive tuition while developing preeminent academic programs. Award winning, well maintained facilities aid in recruitment and retention of the talent in the region and state.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

The entire campus community including students, faculty, staff and visitors will benefit from the investment in updating the existing facilities.

6. Provide a demonstration of the need for the project:

The University has maintained a focus of serving students with disabilities. The restrooms campus-wide are in various stages of compliance with the ADA. These funds would be spent to address the restrooms that are non-ADA compliant.

7. Describe, in detail, the location the project:

The deferred maintenance projects are campus wide. Staffs from Facilities Planning and Development, Engineering & Construction and Physical Plant meet to evaluate the functionality of the campus grounds and building systems and make recommendations for repair to these systems. An ongoing list is maintained by the University of buildings that will require façade repairs, roof renovations, entry system replacements and window replacements. The integrity of the building envelope must be maintained in order for the building to continue to serve the students, faculty and staff. Deferred maintenance dollars will be spent in the third biennium on the following projects: Envelope Repairs as a continuation of the assessment from biennium 1; Campus wide, Restroom Upgrades and Elevator Upgrades; Dunbar Library, Electrical Upgrades, HVAC system control upgrades and Plaza Renovation; Medical and Health Sciences, Electrical Upgrades to meet current codes and Fawcett Hall; HVAC system upgrades.

8. The benefits expected to result from the project:

By updating the building envelopes campus wide, the facilities will be given a new life for generations of Wright State Raiders yet to come.

Campus Name: Wright State University Dayton Campus

Project Number: 18

Project Title: Center for Translational Healthcare Modeling and Simulation

Biennium: 2019-2020

1. Project Description:

The proposed Center will serve as an interdisciplinary modeling and simulation laboratory for teaching, training and translational health care research. Together with its community partners, it will create an inter-professional environment to develop and test state-of-the-art health care modeling and simulation strategies, including high fidelity mannequins grouped into clinical settings, standardized patients and virtual simulation, as well as the associated health informatics, data management, and security. Together with its community partners, it will create an inter-professional environment to develop and test state-of-the-art health care modeling and simulation strategies, including high fidelity mannequins grouped into clinical settings, standardized patients and virtual simulation, as well as the associated health informatics, data management, and security. In so doing, the center will:

- Create a multidisciplinary simulation center for the health professions.
- Involve students, graduate students and practicing professionals.
- Train health professions learners to work in high functioning teams.
- Provide a risk-free, virtual instructional environment prior to actual patient encounters.
- Research the effects of simulation on patient safety and patient care.
- Research and create new modeling and simulation equipment, methods and associated big data management and security.
- Provide continuing education opportunities for practicing professions in re-certification requirements and new techniques.
- Generate new learning and approaches for patients and communities in the 21st century health care environment.

The Center would provide interdisciplinary education that relates directly to patient care in the community and generate modeling and simulation-based research to understand and develop more effective methods to improve patient outcomes. Moreover, the Center would round out the University's healthcare engineering and research "quad" currently represented by Boonshoft, Russ and Neuroscience Engineering Collaborative Building, and allow College of Nursing and Health the opportunity to test cutting edge instructional modalities as well as high tech applications in the patient care arena. Finally, this would be an ideal opportunity to integrate our expertise in human factors, visualization, health informatics and big data into a state-of-the-art translational research and training facility for healthcare professionals and students, and would position us for a wide range of research collaborations, commercialization opportunities, continuing education offerings and other alternative revenue streams. .

Campus Name: Wright State University Dayton Campus

Project Number: 19

Project Title: Center for Advancement of Pharmacology and Therapeutics

Biennium: 2019-2020

1. Project Description:

The Center for the Advancement of Pharmacology and Therapeutics is proposed to be housed within a new site which will serve to promote an academic-industry collaboration designed to advance innovation in the areas of drug development and drug delivery techniques. The site will house faculty from the BSOM (primarily Pharmacology & Toxicology), the College of Engineering, others within WSU, the Cedarville University School of Pharmacy and a select team representatives from the pharmaceutical industry who will work together to rapidly identify opportunities, set priorities, and move new ideas from concept, to product development and to the bedside. The Center will incorporate and explore opportunities within the emerging science of personalized medicine into drug development, and will serve as a hub for multi-professional education of a wide variety of stake holders involved in the development of new therapeutics, including basic scientists, clinical investigators, nurses and others.

Campus Name: Wright State University, Lake Campus

Project Number: 1

Project Title: Modernization of Library for Engineering Programs

Biennium: 2015-16

1. Project Description:

Transformation of library space to serve growing enrollment in programs such as engineering, education, agriculture and new programs in food science and business. There are needs for instructional, office and storage space. The Lake Campus recently moved the library into a module so that the engineering program would have classroom and office space. There are a number of adjustments and changes that should be made to the space to accommodate both instructional and lab functions. The building was originally built for automotive technology so there is a solid structure in place.

2. Explain why this project is a priority:

Growing enrollment in engineering programs, plus a recently launched food sciences program, has create an urgent demand for space to serve these programs.

3. Explain how the project fits in with the Funding Commission's guiding principles:

Modernization of space to accommodate growing programs meets the guiding principle of focusing on maintaining the investments the state has already made, while also serving the needs of today's students by strengthening their learning environments.

4. Explain the economic benefits to the state or region resulting from the project:

The Lake Campus is experiencing surging enrollments and graduates in engineering (52 percent increase in Fall 2013 over the previous year) and sciences programs who are filling the workforce development pipelines for area employers. Providing space for these programs will accommodate the workforce development needs of these employers for the coming decades.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

Hundreds of community residents, ranging from large corporations served by the programs to the students enrolled in them, will benefit from this project.

6. Describe, in detail, the location the project:

Library space, Lake Campus

7. The benefits expected to result from the project:

The Lake Campus is experiencing surging enrollments and graduates in engineering (52 percent increase in Fall 2013 over the previous year) and sciences programs who are filling the workforce development pipelines for area employers. Providing space for these programs will accommodate the workforce development needs of these employers for the coming decades.

Campus Name: Wright State University, Lake Campus

Project Number: 2

Project Title: Lake Campus: Deferred Maintenance General Needs

Biennium: 2015-16

1. Project Description:

The Lake Campus has a number of smaller but very important high profile deferred maintenance needs that require attention: A) The Lake Campus marina needs to be dredged and the shoreline greatly enhanced and stabilized to stop erosion and sustain the local aquatic environment. B) Landscaping over the entire campus needs to be replaced, enhanced, and revitalized. Previous construction projects never replaced shrubs, flowers, trees, etc. There are still considerable amounts of concrete and stone construction debris on site. C) The amphitheater needs structural and severe weather damage repairs. This is the only performing arts platform for the Lake Campus and it is nearly unusable as it exists today.

2. Explain why this project is a priority:

This project puts the face onto the initial impression of the Lake Campus. All incoming guests, students, parents, alumni, etc. see these high profile exterior elements. These items all make a statement about the university, and the statement currently is one of neglect and missed opportunities.

3. Explain how the project fits in with the Funding Commission's guiding principles:

This project would maintain and improve upon the states previous investments in the existing Lake Campus. This project also strengthens the learning environment and puts a quality appearance to match the world-class educational programs being produced.

4. Explain the economic benefits to the state or region resulting from the project:

There are huge economic benefits to the region and the state by increasing the education of the local work force. This increase wage earnings and increases corporation's profit margins all throughout the region and the state level, all by attracting and maintaining more quality students.

5. Describe the estimated number of individuals who will benefit from the project in terms of its proposed use:

There are nearly 1,200 current students at the Lake Campus that are all directly affected by these projects. The surrounding community is also very much affected by the programs and the facilities at the Lake Campus. Additionally, the Dayton Campus is increasingly attempting to comingle opportunities with the Lake Campus; this is nearly 16,000 students, not to mention alumni as well.

6. Provide a demonstration of the need for the project:

The need is described in detail in the description of the project since it is deferred maintenance projects. The marina, the amphitheater, and the landscaping are all damaged as a result of recent construction, time, and weather.

7. Describe, in detail, the location the project:

The area is around the grounds of the entire Lake Campus and is visible by all at the campus and from the lake itself.

8. The benefits expected to result from the project:

This project will present a high quality face to the world-class programs and the students of Lake Campus deserve.

Campus Name: Wright State University, Lake Campus

Project Number: 3

Project Title: Lake Campus: Dwyer-Trenary Connector

Biennium: 2017-18

1. Project Description:

The Lake Campus Master Plan shows a 55,000 sq. ft., two-story connector building a new academic building connecting all buildings on campus and housing a new media center, business enterprise lab, food science program, other programs. Corresponding improvements would be made to the front entry, grounds and parking. The Lake Campus is in the process of creating a Program of Requirements (POR) with a university-selected architect to develop a plan of what this connector would look like.

A number of food manufacturing and production businesses in the region (such as Dannon Yogurt, Cooper Farms, Red Gold, etc.) have told us that workers trained in quality control, food audits, etc. are critical to their success. They have agreed that an associate degree in some aspect of food science would be appropriate for a beginning worker. Now that we have the Bachelor of Technical and Applied Studies (BTAS) degree, there is a career path to a 4-year degree. Engineering at the Lake Campus has focused on mechanical engineering with a manufacturing focus. There are a number of opportunities to form a curricular connection between farming, food production, and mechanical engineering-manufacturing. RSCOB is also interested in quality control and food auditing programs. The intersections become even more obvious when opportunities to provide interns and/or coop students to the same array of work sites. We have a number of articulation agreements with regional agriculture career technical programs as well as Project Lead the Way (engineering). As colleges on the Dayton campus want to work more closely with the Lake Campus, this space would provide access and support.

Campus Name: Wright State University, Lake Campus

Project Number: 4

Project Title: Campus-Wide Classroom Modernization and Upgrades

Biennium: 2019-2020

1. Project Description:

The project will include a study of the existing classroom inventory to identify and prioritize spaces in need of renovation based upon enrollment trends, utilization rates, technology requirements, and new learning models, including active learning classrooms and on-demand learning.