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Executive Summary

The Master of Architecture (M.Arch) degree - to be housed in the Department of Architectural Studies in the College of Arts & Science at the University of Missouri in Columbia - builds upon an existing 4-year pre-professional Bachelor of Science degree in Architectural Studies and an existing, project-based Master of Arts degree in Architectural Studies. The M.Arch is a 37-credit-hour, terminal degree designed to complete a 4+1 accelerated path to a National Architectural Accrediting Board (NAAB) accredited degree in architecture.

The M.Arch degree completes the education requirement for many jurisdictions – including the State of Missouri - to pursue professional licensure and prepares all graduates with the knowledge and skills needed for the next steps in their careers. With the tiered tuition model in place and a required internship component, students can complete the M.Arch program in 5 years and develop industry experience throughout the process, reducing costs, and shortening the average timeline to professional licensure from 13.5 years to 8 years. For example, under the existing structure, students would begin their internship in Year 8, taking licensure exams in Year 11; under the new model, students will begin their internship in Year 4 and exams in Year 6.

As noted in the attached letters of support from members of the American Institute of Architects Missouri chapter - a professional organization representing 2100 architects across the state - this program will contribute to the professional landscape through affordability and accessibility, retaining local talent, collaborating with communities for impact, and positively effecting the state's economic development.

2. University Mission & Program Analysis

2.A. Fit with University Mission and Other Academic Programs

Alignment with Mission

The Master of Architecture program will enhance opportunities for success for graduates and have a valuable impact on the communities they serve. Encouraging dialogue between practice and pedagogy, the curriculum will prepare the next generation of leaders in a collaborative, rapidly evolving industry. This is a program that trains dynamic problem solvers who will create innovative solutions to unpredictable circumstances. Using cutting-edge research and advanced technological applications, students will disseminate designs with evidence-based practices that

positively impact the built environment. Students will engage in service learning to benefit the community, participate in internship programs to connect with industry, and grow a regional workforce with a desired skillset for multi-disciplinary architectural firms in Missouri and beyond. Because of architects and their collaborators in industry, building performance will improve overall wellness – including socio-economic conditions for those underserved populations. This will contribute to an improved quality of life in the state, the nation, and the world.

Alignment with Campus Strategic Plan

The campus strategic plan is organized around 5 critical areas:

1. Excellence in Student Success:
 - a. The M.Arch program provides a streamlined path for students to pursue licensure in Architecture, limits timeline/financial burden to licensure, and mirrors workforce needs while pushing beyond accreditation requirements to ensure graduates are prepared to thrive in the architectural industry.
2. Excellence in Research & Creative Works
 - a. The Department of Architectural Studies incentivizes student excellence through participation in national competitions and research programs that support and promote innovation.
3. Excellence in Engagement & Outreach
 - a. The Department of Architectural Studies houses a Center for Design Outreach (CDO) where students gain real-world experience working on community-based projects for underserved populations. Graduate students work with K-12 students during camps such as Girls in STEM.
4. Inclusive Excellence
 - a. Department faculty and staff are a diverse group representing a variety of race, gender, and minority populations. Additionally, a range of disciplines and professional experience create a model for potential career trajectories in industry and academia. Peer-to-peer mentoring programs are in place for graduate students and opportunities to learn varied perspectives are encouraged.
5. Excellence in Planning, Operations, and Stewardship
 - a. The department fosters a safe learning environment and transparent, collaborative decision-making process.

Alignment with College Strategic Plan

The College of Arts & Science (COAS) is dedicated to bringing all of our work beyond our classrooms, studios, and laboratories. As a part of an AAU public land grant institution, we serve our state and nation by educating our students, advancing creative work and research, and engaging Missouri and the nation. In the recently revised strategic plan, COAS has identified 5 areas of emphasis:

1. Champion Student Success
 - a. The M.Arch degree will help COAS to prepare students for endless possibilities because the program emphasizes interdisciplinary collaboration and expands upon NAAB requirements to diversify career options in the architectural industry. Student success is tracked and supported to ensure industry-ready graduates.
2. Provide Expert Instruction
 - a. The curriculum brings evidence-based research, accreditation-reviewed learning outcomes, and hands-on experiences to students throughout their degree. Housed in a Department with a rich doctoral program and experienced faculty, access to research and cutting-edge technology is available for every student.
3. Grow and Promote the Impact of Research and Creative Work
 - a. Discovery and creativity are integral to the design thinking process that occurs in every studio, every semester. The Department of Architectural Studies is passionate about sharing the research and creative work produced by our students and faculty at local, national, and international conferences and competitions.
4. Strengthen Community Engagement and Outreach
 - a. Students will work in teams and with community members/project stakeholders to provide impactful insights into the betterment of the built environment. Service-learning requirements with non-profit organizations such as Habitat for Humanity are critical for engagement and understanding the dynamics interdisciplinary work.
5. Strengthen A&S Employee Culture
 - a. The Department of Architectural Studies is committed to a healthy, supportive, and inclusive work environment. All employees are valued for their contributions to a multi-disciplinary environment.

Alignment with Departmental Mission

The mission of the Department of Architectural Studies is to make communities better through the thoughtful design of buildings and spaces available to all people. We provide our students with the knowledge, experience, and skills to become inspiring leaders within their fields and to address emerging challenges involving globalization, sustainability, and technology.

The goals of the proposed M.Arch program are to expand upon the existing 4-year, pre-professional undergraduate degree in Architectural Studies to provide a streamlined path to a terminal degree that is accredited by the National Architectural Accrediting Board (NAAB) with strengths in multi-disciplinary collaboration, sustainability, and design computing. This is a program that can lead to licensure in Architecture and certifications in sustainability such as WELL and Leadership in Energy and Environmental Design (LEED).

Program Priority

We believe that this program will enhance opportunities for success for our graduates and have a valuable impact on the communities they serve. This is a program that trains dynamic problem solvers to become professionals who will create innovative solutions to unpredictable circumstances. Using cutting-edge research and advanced technological applications, students will disseminate designs with evidence-based practices that positively impact the industry. Because of architects and their collaborators in the built environment, building performance will improve overall wellness – including socio-economic conditions for those underserved populations that need it most. This will contribute to an improved quality of life in the state, the nation, and the world.

When discussing our program with professional organizations including the local and state chapters of the American Institute of Architects (AIA), we are further convinced of the State's need for growing and retaining local talent in the field of architecture. Dean Cooper Drury's letter clearly speaks to the support of this program from COAS.

2.B. Duplication within the State, UM System

Two private institutions, Washington University in St. Louis (M.Arch) and Drury University in Springfield (B.Arch) are accredited through NAAB. These two programs are more costly and take longer to complete than the proposed program at MU.

UMKC recently received approval for a 5-year, 150 credit hour minimum Bachelor of Architecture undergraduate program (B.Arch). While this will benefit in-person students and firms in the Kansas City metropolitan area – as noted in attached letters of support from the American Institute of Architects (AIA) Board members – it should be viewed as a collaborative partner to address the gap in affordable, accessible educational offerings for architects across the state of Missouri. The letter of support from Dean Kevin Truman at UMKC speaks to opportunities for collaboration.

The Missouri University of Science & Technology has an architectural engineering program that is a curricular partner in the M.Arch degree as well as a teammate in our 2024 US Department of Energy Solar Decathlon finalist team. S&T and MU have begun having conversations to discuss course sharing opportunities, as indicated by the letter of support endorsed by Dr. Joel Burken, Curators' Distinguished Professor and Chair of the Civil, Architectural, and Environmental Engineering Department at S&T.

The Department of Architectural Studies looks forward to sharing curriculum, including two of the program's required courses, and expertise system-wide to aid in the betterment of our programs and retention of architectural talent in the State of Missouri.

Many of our courses are offered online or hybrid and we have the means and experience to collaborate across modalities.

Rationale

The Department of Architectural Studies at Mizzou has a rich history of training interdisciplinary designers in housing, interior design, design computing, sustainability, and architecture. Established in 1900, the program has evolved with industry demands and achieved many milestones including:

- introduction of Computer Aided Design & Drafting in the classroom in 1972
- establishment of a PhD program in 1972
- first cohort of five accredited interior design programs in 1973
- first online PhD with emphasis in Environment & Behavior in 2003
- establishment of the building technology lab with fabrication equipment in 2003

- establishment of immersive visualization lab featuring Augmented and Virtual Reality research in 2010
- first cohort of seventeen international Zero Energy Design Designation (ZEDD) programs by the U.S. Department of Energy in 2022

The architectural studies undergraduate curriculum is a 4-year, minimum 120 credit hour degree with emphasis areas in Interior Design - a Council for Interior Design Accreditation (CIDA) accredited degree - and architectural studies, which is a pre-professional degree that prepares students for the final 30 (B.Arch) to 48 (M.Arch) required minimum credit hours for a NAAB accredited degree in architecture. Due to the rigorous nature of the profession, all NAAB accredited programs are a minimum of 5 years, 150 credit hours. The Master of Architecture degree is the terminal degree for the field of architecture and has been argued by the profession to be considered equivalent to a professional degree such as that in the field of law.

Currently, about 20% of the 240+ student undergraduate program chooses to pursue a Master of Architecture degree at another institution after graduation, extending their timeline to licensure by 2-3.5 years and often delaying placement in the industry. This path forces students into major metropolitan areas or out of state, limiting the pool of workers for many areas in Missouri. Additionally, students are burdened with the financial implications of additional years of education, particularly when obtained at private and out-of-state institutions.

Historically, the path to licensure for Mizzou students has included 4 years of undergraduate study, 3 years of graduate study, 4 years of internship work supervised by a licensed professional, and 2-3 years of exams – an average of 13.3 years (<https://www.ncarb.org/nbtn2023>). This program can reduce this timeline by 5 years through a curriculum with a focus on preparation for professional practice.

The M.Arch proposal is intended to expand upon our existing 4-year programs to offer an accelerated path to an accredited terminal degree in architecture. Earning an accredited degree in architecture from a public institution in Missouri is the most efficient path to architectural licensure for students. Licensure requires a combination of education, experience, and examination and is most often – but not always - achieved with an accredited degree in architecture. Earning a terminal degree in architecture allows for graduates to pursue careers in academia and meets the requirements of some special jurisdictions for licensure. Additionally, offering the Master of Architecture degree allows a path for students to earn an accredited bachelor's degree in interior design as well as the accredited master's degree in architecture in 5 years.

Earning accredited degrees in both interior design and architecture is a powerful preparation for our increasingly multi-disciplinary industry. Compared to earning a B.Arch, graduates with a NAAB accredited M.Arch degree from the University of Missouri-Columbia have greater earning potential and become licensed sooner due to the integrated curricular internship and service learning components. They also have the opportunity to explore more deeply the research and applied methods surrounding contemporary issues faced in industry. Additionally, Missouri will have more licensed architects to improve quality and performance of buildings and infrastructure throughout the state.

2.C. Collaboration within the State

This program shares coursework with Missouri S&T - Department of Architectural Engineering, including two of the program's required courses. This is an open-ended agreement that could result in financial benefits to both institutions while ensuring an efficient use of instructional resources.

3. Business-Related Criteria & Justification

3.A. Market Analysis

The program will meet Market Demand, Societal Need and Student Demand.

3.A.1. Rationale & Workforce Demand for the Program

At the national level, employment of architects is projected to grow 5 percent from 2022 to 2032, faster than the average for all occupations. About 8,200 openings for architects are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire. (www.bls.gov/ooh/architecture-and-engineering/architects.htm)

At the state level, according to Missouri Economic Research Information Center (MERIC):

- Architects will have 9.85% increase in employment by 2030
- Construction and Building Inspectors will have 4.23% increase in employment by 2030
- Interior Designers will have 1.96% increase in employment by 2030
- Computer Occupations will have 9.35% increase in employment by 2030

Additional data from Lightcast, which was made available from the Provost's office, estimates that there 81,631 annual openings in architect-related occupations in the United States, with competitive median earnings of \$82,500 per year. This includes nearly 6,000 annual openings for Architectural and Engineering Managers, with median earnings of over \$150,000 per year.

What is not captured specifically in this data is the emerging need for technology and sustainability in the architectural industry, which is undergoing significant changes as it combats climate change and aims to reach 2030 and 2050 international building performance goals. The ZEDD from the US Department of Energy situates the Department of Architectural Studies and this program ideally to provide the need for a well-prepared workforce. Therefore, we expect that current workforce analyses underestimates demand for graduates of this program.

Meeting Missouri's Needs

As noted by leading Missouri architects who serve in the AIA at state and national levels, graduates of a centralized, in-state public M.Arch program will contribute to growth in the architectural sector, attract investments, and benefit local economies. A partnership with the UMKC B.Arch program would aid in diversifying the workforce and bringing affordable opportunities to underrepresented populations. The Mizzou Architectural Studies program has proved that collaboration can be successful across institutions in the state as demonstrated through shared curriculum and collaboration on Solar Decathlon teams with the Missouri S&T Architectural Engineering program. The hybrid nature of the M.Arch program allows students flexibility in modality and provides opportunities to learn from a wide range of professors with varied expertise.

Lastly, the M.Arch will provide cutting-edge research opportunities for students through access to graduate faculty, and research labs on campus including the iLab, Center for Design Outreach, Building Technology Lab, and Fabrication Facility.

Missouri citizens deserve to have a NAAB accredited architecture program at the flagship, land-grant, public institution in their state. The current process to achieve a NAAB accredited degree for Missourians limits diversity in our industry and has severe financial implications for students with additional years of education required and delayed professional career earnings.

Missouri's built environment will benefit in numerous ways from the elevation of deliverables, improved building performance, and multi-disciplinary approach of graduates in this program. From the civic perspective, licensed architects – and graduates of programs with this training – are needed not only to protect the health, safety, and welfare of everyday citizens but also to invoke inspiration and innovation in the built environment.

Architecture is art and science, coordinating projects intertwined with psychology, sociology, economics, sustainability, and politics. The design process includes spending significant time with clients and community members to collaboratively enhance environments that support optimal human performance and ensure that everyday living conditions are healthy. Energy use, affordable housing, severe weather resilience, and indoor air quality are just a few of the required performance data metrics embedded in the M.Arch curriculum at Mizzou with ZEDD.

The more practicing professionals in an area, the more these components can elevate the standards of living, service, and care to all citizens, allowing programs to train and retain students on the specific needs of our state, contributing to the Missouri economy in a positive way. This is a program that supports, promotes, and provides a sustainable future for Missouri.

3.A.2. Student Demand

Earning a degree from an architecture program accredited by NAAB is the most common path for candidates seeking professional licensure in the United States. Records are maintained by the National Council of Architecture Registration Boards (NCARB). Data continues to show that, on average, licensure candidates with a degree from a NAAB-accredited program have greater success when taking the national licensing exam. In 2022, graduates of NAAB-accredited programs had an overall exam

pass rate of 57%, compared to 48% for graduates of non-accredited programs—a 9 percentage point difference. Eighty-five percent of new architects in 2022 held a degree from a NAAB-accredited program. The average overall Architectural Registration Exam (ARE) pass rate for all candidates in 2022 was 55%. Out of the 55 U.S. jurisdictions, only 17 will license individuals who don't hold a degree from a NAAB-accredited program (typically by substituting additional experience in lieu of a professional degree) (2022 NAAB Report on Accreditation in Architecture).

Providing a terminal degree in architecture, the NAAB accredited M.Arch degree, at a public institution in the state of Missouri will expand professional opportunities for graduates to include academia and other research-intensive positions. The M.Arch is viewed by industry and argued by academia to be the equivalent of the professional degree in law. The M.Arch should have a program focus or set of strengths that distinguish it from peers. Mizzou's program strengths lie in interdisciplinary collaboration, sustainability, and design computing. Students come to the Department of Architectural Studies at Mizzou because of the legacy of excellence, opportunities to apply research throughout the design process, and use of cutting-edge technology in faculty-run laboratories. The undergraduate program has grown substantially in the past 5 years - 2019/20: 106, 2020/21: 168, 2021/22: 202, 2022/23: 233, 2023/24: 248 - and has been positively impacted by the transition to the College of Arts & Science.

In Spring 2023, under the Missouri-Kansas Reciprocity Agreement, 261 Missouri students enrolled in Kansas NAAB accredited architecture programs at both B.Arch and M.Arch levels. In the last 3 years, at least 22 graduates of the Architectural Studies undergraduate program at Mizzou have gone on to pursue an M.Arch degree, 8 of those in Kansas, and chosen to add 2-3 years on to their education in pursuit of NAAB accreditation and professional licensure. Please note, this does not include the students that pursue graduate education in another field such as landscape architecture or research.

The current undergraduate enrollment in the Department of Architectural Studies is divided evenly with an architectural studies or interior design emphasis. At least 50 current students will pursue a professional license in architecture via M.Arch degree. The proposed M.Arch program provides a clear, affordable pathway for students while keeping talent in our state to benefit the region socially, civically, and financially. Given the opportunity for students to achieve accredited interior design (CIDA) and architecture (NAAB) degrees in a 4+1 accelerated program, it is anticipated that an additional 10-20% of the student population will show interest in earning the M.Arch.

Current undergraduate students would be eligible to apply for the Master of Architecture program and there is significant interest. Additionally, due to high demand of an accredited architecture program in Missouri, we have given tours to students interested in this program recently, including a group of 20 students from the Columbia Area Career Center.

Table 1a. Student Enrollment Projections – total enrollment

Year	1	2	3	4	5
Full-time	5	20	45	70	70
Part-time	0	0	0	0	0
Total	5	20	45	70	70

Table 1b. Student Enrollment Projections – new to MU

Year	1	2	3	4	5
Full-time	5	20	45	70	70
Part-time	0	0	0	0	0
Total	5	20	45	70	70

Table 1c. Projected number of degrees/certificates awarded

Year	1	2	3	4	5	6	7	8	9	10
Completions	3	18	40	70	70	70	70	70	70	70

Justification for Projections

These projections are based on polling the current undergraduate student population within the Department of Architectural Studies. After 3 years, it is anticipated that students will begin their undergraduate education in architecture with intention of completing the 4+1 M.Arch at Mizzou.

3.B. Financial Projections

No new faculty lines nor campus resources other than those already allocated for the Department of Architectural Studies are needed to deliver the Master of Architecture program. Every component is in place and within the current budget until the program grows beyond 30 graduate students per year.

3.B.1. Additional Resources Needed

Once we have demand for more than 30 students in our Master of Architecture program, we will need to add faculty – either adjunct or full time – to maintain program quality and workload policy compliance. Based on enrollment projections, we expect to exceed this demand in Year 3 following program approval. Therefore, an additional faculty salary and benefits are included in the budget beginning in Year 3 contingent on meeting projections.

3.B.2. New Revenue

New revenue would be equivalent to the graduate tuition and fees associated with a minimum of 37 credit hours per student in the program - minus scholarships and assistantships - as shown in the financial projection spreadsheet.

Table 2. Financial Projections for Proposed Program for Years 1 through 5

	Year 1	Year 2	Year 3	Year 4	Year 5
1. Expenses per year					
A. One-time					
<i>New/Renovated Space</i>	0	0	0	0	0
<i>Equipment</i>	0	0	\$3,000	0	\$3,000
<i>Library</i>	0	0	0	0	0
<i>Consultants</i>	0	0	0	0	0
<i>Other (Startup costs)</i>	0	0	\$10,000	\$10,000	\$10,000
Total one-time	0	0	\$13,000	\$10,000	\$13,000
B. Recurring					
<i>Faculty</i>	0	0	\$75,000	\$76,125	\$77,267
<i>Staff</i>	0	0	0	0	0
<i>Benefits</i>	0	0	\$26,715	\$27,116	\$27,523
<i>Equipment</i>	0	0	0	0	0
<i>Library</i>	0	0	0	0	0
<i>Other</i>	0	0	0	0	0
Total recurring	0	0	\$101,715	\$103,241	\$104,790
Total expenses (A+B)	0	0	\$114,715	\$113,241	\$117,790
2. Revenue per year					
<i>Tuition/Fees</i>	\$87,617	\$360,981	\$836,574	\$1,340,378	\$1,380,590
<i>Institutional Resources</i>					
<i>State Aid -- CBHE</i>					
<i>State Aid -- Other</i>					
Total revenue	\$87,617	\$360,981	\$836,574	\$1,340,378	\$1,380,590
3. Net revenue/ (loss) per year	\$87,617	\$360,981	\$721,859	\$1,227,137	\$1,262,800
4. Cumulative revenue (loss)	\$87,617	\$448,598	\$1,170,458	\$2,397,595	\$3,660,395

3.B.3. Financial and Academic Viability

Table 3. Enrollment for Financial and Academic Viability

Enrollment	Minimum for Financial Viability	Minimum for Academic Viability
Full-time	0	15
Part-time	0	0
Total	0	15

Explanation of Viability Projections

All coursework, curriculum, faculty lines, and facilities exist with our other degree programs already in place.

3.C. Business Plan: Marketing, Student Success, Transition & Exit Strategies

3.C.1 Marketing Plan

The current undergraduate enrollment in the Department of Architectural Studies is divided evenly with an architectural studies or interior design emphasis. At least 50 current students will pursue a professional license in architecture via M.Arch degree. The proposed M.Arch program provides a clear, affordable pathway for students while keeping talent in the state to benefit the region socially, civically, and financially. Given the opportunity for students to achieve accredited interior design (CIDA) and architecture (NAAB) degrees in a 4+1 accelerated program, it is anticipated that an additional 10-20% of the student population will show interest in earning the M.Arch. Thus, the program will not need to advertise beyond the current recruiting practices utilized by the department and the University of Missouri as the typical deterrent to attending our program is the lack of a NAAB accredited degree.

The Department of Architectural Studies has been working on a website and robust branding campaign for 18 months. These efforts will promote each facet of the department, including the M.Arch program. The systems will be in place and content will simply be added into the existing workflow.

Individual Responsible for Marketing

Lyria Bartlett will be responsible for marketing along with the COAS marketing team and internship program that is currently running.

Projected program growth

We expect the undergraduate architectural studies program to continue a steady increase in enrollment as it has for the past 5 years. The numbers indicated in the student enrollment section show that current undergraduate students at Mizzou are expected to enroll in the M.Arch program as a 1 year continuation of their undergraduate curriculum beginning in Fall 2024. Additionally, we expect approximately 30 new students each year targeting this accelerated Master of Architecture 4+1 degree program that would have pursued a NAAB accredited program elsewhere, drastically increasing the M.Arch enrollment at year 4 & 5.

Due to accreditation requirements, students admitted into the Master of Architecture program will need to meet a minimum standard of work and curricular success. We will evaluate our Master of Architecture applicants through an admission process at the end of the 3rd year of undergraduate coursework. This includes a design portfolio submission, which allows us to responsibly manage the growth of our graduate program and ensure competencies for accreditation. We will prioritize faculty workload stability through sustainable growth, only admitting students in cohorts that relate to a studio course/cohort size of 12-18 students. These numbers are based on recommendations from NAAB. Once we have demand for more than 30 students in our Master of Architecture program, we will need to add faculty – either adjunct or full time – to maintain program quality and workload policy compliance.

Marketing Costs

We do not estimate any marketing costs currently beyond existing marketing efforts for the Department of Architectural Studies.

3.C.2 Student Success Plan

There is a dedicated, powerful academic advising program and support structure for students in the College of Arts & Science. Additionally, there are internal student organizations, access to a professional advisory board, a strong network of alumni, and peer mentors within the Department of Architectural Studies. Lastly, the department works with professional organizations such as NCARB to provide mentor training and faculty resources that help students prepare for licensure and professional practice.

Historically, the challenging curriculum required of CIDA accredited professional degree, Zero Energy Design Designation, and pre-professional programs does not produce strong retention rates (The Department of Architectural Studies 3 year average: 2 year retention – 86.78%, 4 year retention – 54.9%, 6 year retention –

72.5%). The coursework is sequential, requires a lot of credit hours, and builds comprehensively across a minimum of 7 semesters. The Department intends to add a third undergraduate emphasis across a minimum of 4 semesters to improve student success and provide pathways to allied professions. This emphasis in Design Studies will also allow a more feasible degree in 4 years for transfer and non-traditional students.

Achieving Enrollment Outcomes

This is a student-driven, alumni-driven, and student-desired program. We already have a current cohort prepared to apply and enroll in the M.Arch program as soon as it is available. Strong community connections with Columbia Public Schools and the Columbia Area Career Center have catalyzed tours of the department because the students interested in architecture want to stay in Missouri. This program is providing a finish line for education requirements on the path to architectural licensure and reduces time and expenses for current and future student populations.

Accreditation is the method of calibrating programs to ensure that learning outcomes are met, job placements are strong, and student experience is prioritized. The Department intends to have 2 successful accreditations and 1 designation that will keep it competitive on a national and international level in the architectural industry. Graduates of our program believe in the strong foundation they received at Mizzou and continue to thrive in industry leadership positions and many, such as alumni Jason Perryman of HOK (letter attached), are responsible for recruiting talent to their firms.

We have presented and vetted our M.Arch program with alumni, advisory board, and board members for the Missouri chapter of the AIA. All parties are enthusiastic about this opportunity, and unanimous in their belief that it is needed in Missouri to advance the profession. We have several letters of support stating how much easier this program would have made the lives of our alumni. Therefore, we believe that maintaining strong curriculum through accreditation, continuing to place graduates in sought-after positions in architectural firms, providing an affordable and streamlined path to licensure, and strong community relationships with K-12 programs and industry will continue to fuel our enrollment.

3.C.3. Transition Plan

Lyria Bartlett is primarily responsible for the M.Arch program. There is a committee of faculty and staff who play critical roles in the implementation. The nature of running and maintaining an accredited program requires shared curriculum resources and reports as well as collaborative efforts of all students, faculty, and staff every semester. The database for all records is maintained centrally within the Department of Architectural Studies and many people have access or can be granted access should a transition need to occur. Thus, all evidence, learning outcomes, lessons, and syllabi are in place for a smooth transition to maintain program quality.

3.C.4. Exit Strategy

The exit strategy would be to continue the current programs the department of Architectural Studies offers today (BS Architectural Studies, MS Architectural Studies [with thesis/without thesis], PhD HES with Architectural Studies emphasis). This would not require a reduction in faculty nor facilities. Due to the strength of our undergraduate curriculum, students would have opportunities to pursue professional licensure in architecture via a non-traditional path and/or NAAB accredited M.Arch degree programs at other institutions. If our M.Arch enrollment drops below 10 students, we will need to revisit the structure. If our M.Arch program enrollment declines over three years with an average below 1 studio cohort of 12 students per year, we will need to revisit the structure. The required classes for the M.Arch are shared with other programs and disciplines, which aid in the stability of enrollment.

4. Institutional Capacity

All requirements for successful implementation of the M.Arch program currently exist within the Department of Architectural Studies as it is an evolution of two existing programs, BS Architectural Studies and MA Architectural Studies. As mentioned, the department has extensive experience delivering online and hybrid coursework at the graduate level. To ensure quality, the department is working with Mizzou online and the Teaching for Learning Center on campus for successful content delivery and best practices in the Learning Management System.

5. Program Characteristics

5.A. Program Outcomes

The Master of Architecture degree is intended as a professional degree that prepares all graduates with the knowledge and skills needed for the next steps in their careers in the field of architecture, including experience, examination, and licensure.

5.B. Program Design & Content

Traditional architecture curriculum utilizes design thinking at its core and prioritizes the design studio. This lab environment utilizes knowledge gained from supporting coursework and evidence-based design research to provide innovative solutions to problems in the built environment, ultimately resulting in an improved condition for the population it serves. 4-year programs are considered pre-professional as the skills required in the comprehensive design studio – with evidence of all phases: pre-design through construction documentation and bidding/negotiation - are not yet mastered.

The proposed M.Arch program will build upon the existing pre-professional model to include comprehensive design studios and emphasize defining strengths in sustainability, digital media, and human factors while encouraging interdisciplinary collaboration. The project-based plan of study is an in-depth investigation of a problem culminating in a design solution and presentation to a professional panel for evaluation of innovation, viability, and implementation.

Unique to this program is the balance between people and place, interior design and architecture, sustainability and wellness. Mirroring the challenges faced by cities and governments, graduates from this program will be familiar with contemporary issues and work within their communities to improve living conditions through building performance, education, and holistic incorporation of resources needed to support those most vulnerable. Architects are often the coordinators of ideas and facilitators of progress.

We develop the next generation of leaders so that they can actively participate in the future of their region, creating positive impact beyond the built environment.

	Student Learning Objectives
1	Protect the health, safety, and welfare of humans in designs of the built environment. This includes ensuring compliance with building regulations, codes and accessibility standards.
2	Understand and demonstrate the requirements of professional architectural practice.
3	Acquire skills for advanced project delivery through drawings, visualizations, specifications, and data analysis.
4	Demonstrate technical and historical knowledge of building precedents, materials, systems, and performance.
5	Synthesize complex design projects.
6	Collaborate and coordinate with related disciplines to deliver comprehensive projects.
7	Apply evidence-based design research to generate creative, innovative solutions.

5.C. Program Structure

Program Curriculum

The Master of Architecture degree requires 37 credit hours beyond the 131 credit hours of a pre-professional undergraduate degree, totaling 168 credits.

“Master of Architecture degree programs may require a non-accredited undergraduate degree in architecture for admission. However, the non-accredited degree is not, by itself, recognized as an accredited degree.” (<https://www.naab.org/wp-content/uploads/2020-NAAB-Conditions-for-Accreditation.pdf>)

The hybrid delivery of the coursework allows flexibility for students in different geographic locations to collaborate synchronously with discussions, presentations, and problem-solving sessions. Some coursework, however, is limited to in-person modality due to the equipment, technology, and material resources available on campus.

A comprehensive academic plan is attached to this proposal.

Program Requirements

A pre-professional degree in Architecture or a related field required for admission. 168 credit hours are required for the M.Arch degree.

Degree Requirements: 37 credits

- ArchE 5001 – Daylighting - 3 credits - Shared course with MO S&T
- ArchE 5820 - Building Lighting Systems - 3 credits - Shared course with MO S&T
- ArchSt 7085 - Digital Fabrication - 3 credits
- ArchSt 7085 - LEAN, IPD, & other Project Delivery Methods- 3 credits
- ArchSt 7940 - Internship in Environmental Design - 6 credits
- ArchSt 8050 - Research Methods - 3 credits
- ArchSt 8840 - Graduate Design Studio - 6 credits
- ArchSt 8840 - Graduate Design Studio - 6 credits
- ArchSt 8850 - Seminar in Environmental Design – 1 credit
- ArchSt 8887 - Environment & Behavior 2 - 3 credits

Additional Faculty

Level	#
<i>Tenure Track</i>	1
<i>Non-Tenure Track</i>	0
<i>Post-Doc Fellows</i>	0
<i>Graduate Assistant</i>	0
<i>Adjunct</i>	0

Internship, thesis or other capstone

Both an internship and a thesis are required for the M.Arch degree. The comprehensive design studio serves as the capstone experience and is evaluated by NAAB for accreditation and career competencies.

Unique features

The M.Arch shares curriculum requirements with Missouri University of Science & Technology, who specialize in engineering systems specific to building design.

Admission Requirements

In addition to standard graduate student admission requirements set forth by the University of Missouri, applicants for the Master of Architecture program are required to submit a portfolio of design work experience.

Curriculum Design Process

The curriculum design pairs two existing degree programs in the Department of Architectural Studies to create an accelerated path to a NAAB accredited, terminal degree in Architecture. The learning outcomes are evaluated by the accrediting body as a baseline and influenced by the Zero Energy Design Designation requirements from the US Department of Energy.

5.D. Program Goals and Assessment

Process for Assessment

NAAB Accreditation and ZEDD Designation requirements will be the methods through which curriculum is calibrated, audited, and assessed. The visits run in cycles every 3-6 years depending on program standing.

Standardized Assessment Tests

Architectural Registration Exams (ARE)

Retention and Graduation Rate Goals

The goal is to have 95% graduation rate for students within 2 years of beginning the master's component of the 4+1 program.

Licensure, certification or registration requirements

Yes

Estimated percent of students receiving licensure

90%

Estimated placement rates

Placement area:	Percent:
In related fields	95%
In other fields	5%
Unemployed	0%

5.E. Student Preparation

Students should have earned a pre-professional undergraduate or graduate degree in architecture or allied profession.

Specific Population to be Served:

N/A

5.F. Faculty and Administration

Lyria D Bartlett is the responsible person for this program's success. 15% of Dr. Bartlett's time will be dedicated to the program.

Faculty Listing

Name	Position	Percentage of Time Dedicated to Program
Dr. Jong Bum Kim	Assistant Professor	15%
Dr. Faizan Shafique	Assistant Professor	15%
Dr. Debora Verniz	Assistant Professor	15%
Dr. Janna Lancaster	Instructor	20%
Sam Kellerman	Assistant Teaching Professor	15%

Credentials for Teaching Assignment

Instructors must hold a terminal degree in architecture or related field.

Percent of credit hours assigned to full-time faculty

65%

Faculty Involvement

Faculty responsibilities and expectations are included in their current FTE and contracts for teaching, research, and service obligations.

5.G. Alumni and Employer Survey

The Department of Architectural Studies keeps track of alumni through a robust Linked In database and the College of Arts & Science requires seniors to fill out surveys upon graduation. Accreditation requires data to be updated annually with information such as career placement in industry, location, and salary. The intention is to use Power-BI data and social networking technologies along with surveys to provide the most comprehensive picture available of our student experience.

Employer Survey Plans

Along with annual advisory board meetings and career readiness training sessions with employers through national organizations such as the American Institute of Architects, the Department of Architectural Studies will send out surveys annually through Design Intelligence annually. Additionally, the department will send out independent surveys bi-annually.

5.H. Accreditation

Name of Accrediting Agency:

National Architecture Accrediting Board

Timeline and Process for Achieving Accreditation

We plan to pursue accreditation through that National Architectural Accrediting Board (NAAB). NAAB is the only agency recognized by registration boards in U. S. jurisdictions to accredit professional degree programs in architecture. To receive NAAB accreditation, programs must be offered by institutions accredited by an institutional accrediting agency recognized by the US Department of Education. Currently, there are 175 NAAB-accredited programs offered by 139 institutions of higher learning in the U.S. and abroad. In all 55 U.S. jurisdictions, the NAAB- accredited degree meets the education requirement for NCARB registration, a critical component to licensure.

Fall 2023 – Eligibility Application
Spring 2024 – Candidacy Application
Fall 2024 – First Cohort of Students
Fall 2025 – Site visit for Initial Accreditation (probationary) – Effective Date for initial accreditation set – Term of initial accreditation visit set
Fall 2028 – First term of initial accreditation
Fall 2036 – 2nd accreditation review

6. Appendices

- Curriculum Map
- Letters of Support