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A Fresh Pairing Uniting Design and Construction

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Abstract

This paper solidifies the integral assembly between interior design and construction management as one department unit within a college of architecture and planning. Via a case study, findings reveal advantages of the construction management and interior design partnership. Likening them to an exquisite culinary pairing, the paper concludes that, interior design and construction management are a comprehensive educational mixture that span the entire design process, affording students a cutting-edge education mirroring trends occurring in the design-build industry practice.

Introduction: Defining the Fields

Interior Design

Interior design is a profession where creative and technical solutions are applied to plan and design interior environments that, “promote health, safety, and welfare while supporting and enhancing the human experience” (Council for Interior Design Qualification, 2019, para 2).

Designs are developed as a result of research which is based on the social framework and the coordination between the building shell and knowledge of the physical site. Designs are required to meet code and regulatory requirements and focus on environmental sustainability. The interior design process follows a systematic methodology which includes research, analysis and creative endeavors. These efforts aim to meet the needs and resources of the client, in order to fulfil the project goals.

According to the Council for Interior Design Qualification (2019, para 4),

Interior designers contribute to the interior environment with knowledge and skills about space planning; interior building materials and finishes; casework, furniture, furnishings, and equipment; lighting; acoustics; wayfinding; ergonomics and anthropometrics; and human environmental behavior. Interior designers analyze, plan, design, document, and manage interior non-structural/non-seismic construction and alteration projects in compliance with applicable building design and construction, fire, life-safety, and energy codes, standards, regulations, and guidelines for the purpose of obtaining a building permit, as allowed by law.

Interior designers incorporate a variety of services including:

- Project Management
- Pre-Design/Programming
- Data Collection
- Conceptualization
- Selections and Materiality
- Documentation
- Coordination
- Contract Administration
- Post-Design Services

Construction Management

Construction Management is a professional service that provides effective management of a construction project's schedule, cost, quality, safety, scope, and function (Construction Management Association of America, 2019). Although there are various forms of hierarchies that can be platforms for building a construction project, a typical construction capital project is made up of three parties: The owner, the architect/engineer/designer, and the general contractor. The construction manager represents the owner's interest and provides oversight over the entire project directly for the owner; working with all parties to deliver the project to the owner's expected standard of quality, scope, and function (Construction Management Association of America, 2019). These three elements, referred to as a project management triangle and are usually the most critical project parameters that a construction manager would seek to manage and balance.

The Construction Management field offers a variety of positions with commercial, residential, industrial and infrastructure construction firms including:

- Project Manager
- Site Superintendent
- Project Engineer
- Estimator
- Safety Officer
- Scheduler

Background

This case study features an interior design program which started in 1971 with the title, Functional Home Arrangement, an option in Home Economic Department. It was renamed Housing/Home Furnishing in 1996, then Interior Design/Housing in 1998, and finally Interior Design in 2004 as a program in Department of Family and Consumer Sciences one of the units under the College of Applied Science and Technology [1].

The construction management program started as an option in the Bachelor of Technology and due to high demand, a separate degree was approved under the Department of Technology. The Department of Technology was one of the units under the College of Applied Science and Technology [2].

In 2016, due to creation of a new college, College of Health and Sciences, the College of Applied Sciences and Technology that housed Family and Consumer Sciences (interior design) and Department of Technology (construction management) was dismantled. The departments and programs were quickly placed in three other colleges. In the fall of 2017, the Interior Design program shifted to become part of the College of Architecture and Planning, quickly aligning with Construction Management to become the newly formed Department of Construction Management and Interior Design. The College of Architecture and Planning has four Departments: Architecture, Landscape Architecture, Urban Planning and now, the Department of Construction Management and Interior Design [3].

As a result of this sudden dissolution and merger, in the fall of 2017 the interior design faculty began to develop a vision for the program and, while doing so, explored whether the program should remain closely connected with the construction management program or explore other options. Questions arose: Should the interior design program be combined into a department with architecture? Should the program be an independent department? Was there another solution? The focus of the study was based on the organizational structure with a horizon of 10 years, forecasting the year 2027.

Data Collection

To further understand their position, the interior design faculty spent one academic year reviewing case studies of various educational structures in use at other institutions with interior design, construction management, and architecture in their academic unit. The faculty sent a survey to ten interior design firms to understand the role of interior designers and architects in the field to see how the academic world could be built around the professional world. They interviewed five educators from similar successful academic interior design programs across the United States to understand their interior design program's relationship with architecture and other related fields. And, sought guidance about their future with 20 members of their program's advisory board.

The faculty considered various parameters including terminology: Interior Design, Interior Architecture, and Facilities Planning as well as accreditation requirements: American Council for Construction Education (2019), Council for Interior Design Accreditation (2018), and the National Architectural Accrediting Board (2019). Faculty qualifications, terminal degrees, student enrollment, faculty numbers, and graduate studies were also reviewed.

Findings

Interior Design and Architecture: Are These the Correct Ingredients?

Many see architecture and interior design as hand-in-hand, a delicious duo; however, there are challenging nuances with the two working together in an academic setting due to the blurred lines of their project scope. Where does one start and the other stop? Weigand and co-authors (Weigand and Dunn 2004, Weigand and Harwood 2007, Weigand and Harwood 2010, Weigand 2013) have traced the relationship and distinctions between interior design and architecture for years revealing the divergent point between the two fields becomes the details in which each discipline focuses.

The Interior Designer and Architect know (and do) different kinds of things. This distinction, however, may have more to do with the scale at which each discipline addresses the standards than with ownership of specific standards. This is an important distinction. (Weigand and Dunn, 2004, p. 21)

With the increased complexity in the design of interior environments, “[There becomes] a more focused expertise and skill set related to sustainable interior materials, ergonomics, design for multiple populations, ADA compliance, workplace design, facilities management, interior lighting and other aspects of the built environment focused at the interior scale” (Weigand, 2013b, p. 90).

The nuances between the fields become greater due to the intersection of not only scope, but scale; Weigand (2013b) continues,

Good architecture is grounded in a sound understanding of the interior, just as good interior design is (or should be) grounded in a sound understanding of its architectural context. Yet, as interior environments have become more complex and specialized, this work has—to a greater or lesser extent—been removed from the scope of the architect. A building and its interior are integrally connected but also distinct, based on the scale of work. (p. 123)

The scale (and scope) are what ultimately present a challenge in the educational realm. Both disciplines are plugged into the same design process thus needing to understand similar attributes, but the level at which they engage those attributes are quite different.

To further understand the scale and scope of the two disciplines at an academic level, a review of the accrediting bodies standards for both interior design and architectural programs were examined. The National Architectural Accrediting Board (NAAB) has accredited professional degree programs since 1975. In 1970 the Council for Interior Design Accreditation (CIDA) was established as the Foundation for Interior Design Education Research (FIDER); it was renamed to CIDA in 2006. Both accrediting bodies assess student work but specifically for the National Architectural Accrediting Board (2019), the Student Performance Criteria measure:

- A. Critical Thinking and Representation-with eight subdivisions
- B. Building Practices, Technical Skills, and Knowledge-with ten subdivisions
- C. Integrated Architectural Solutions-with three subdivisions

D. Professional Practice-with five subdivisions

There are sixteen standards that the Council for Interior Design Accreditation (2018) measure student learning. Standards 1-4 do not measure student work but focus on program identity, faculty, facilities, etc. Professional Standards that measure student work are as follows:

4. Global Context-with eight subdivisions
5. Collaboration-with five subdivisions
6. Business Practices and Professionalism-with fifteen subdivisions
7. Human-Centered Design-with six subdivisions
8. Design Process-with eleven subdivisions
9. Communication-with seven subdivisions
10. History-with six subdivisions
11. Design Elements and Principles-with four subdivisions
12. Light and Color-with twelve subdivisions
13. Products and Materials-with six subdivisions
14. Environmental Systems and Comfort-with seven subdivisions
15. Construction-with ten subdivisions
16. Regulations and Guidelines -with five subdivisions

Many of the student learning outcomes intersect, even overlap: Communication skills, design thinking, use of precedents, knowledge of history & global culture, material knowledge, codes and regulations, technical documentation, environmental systems, project management, legal responsibilities, professional code of ethics, etc. However, while reviewing the understanding of material knowledge, one of the ten categories in NAAB's Building Practices, Technical Skills, and Knowledge section, NAAB assesses a students',

Understanding of the basic principles used in the appropriate selection of interior and exterior construction materials, finishes, products, components, and assemblies based on their inherent performance, including environmental impact and reuse.” (National Architectural Accrediting Board, 2019, B.8)

Council for Interior Design Accreditation (2018) assesses the material benchmark with at least five standards assessing that,

Students are aware that building technology, materials, and construction vary according to geographic location. (4a)

Students understand significant movements, traditions, and related theories in: furniture, decorative arts, and material culture. (10c)

Student work demonstrates understanding of: color in relation to materials, textures, light, and form. (12i)

Students are aware of the influence of furnishings, objects, materials, and finishes on human and environmental wellbeing. (13a)

Students select and apply products and materials on the basis of their properties and performance criteria, including ergonomics, environmental attributes, life safety, and life cycle cost. (13e)

Student work demonstrates understanding that design solutions affect and are impacted by: detailing and specification of interior construction materials, products, and finishes. (15d)

At first glance, the lines between the disciplines may seem blurred (even for someone in either of the two disciplines) due to the common vocabulary threads. However, after reviewing a few overlapping topical terms, it becomes evident that the scope and scale to which CIDA requests compliance is very describe and specified, formulating the scale of the two disciplines as the distinguishing factor.

An informant who has taught in both the in architecture and interior design program at their university (and having just gone through accreditation for both architecture and interior design), affirmed that the accreditation standards between NAAB and CIDA accreditation are different in scale and that the curriculum can be, “affected [hindered] if faculty are stuck in their ways and are not flexible [learning the other disciplines accreditation requirements outside of their own].” Further elaborating, “...if architecture professors do not want to teach CIDA standards then they do not get instilled [they think CIDA standards are covered by NAAB]... basically, the interior design courses need to be taught by an interior design specific faculty to fully understand [and own] CIDA.” The informant went on to suggest that if courses overlap, then the requirements for both accrediting bodies need to be “integrated effectively” and to focus on both accreditation standards is difficult. The informant stated that in their department [Architecture and Interior Design], interior design has specific classes for its field such as: Professional Practice, Lighting, Interior Materials, Universal Design, Interior Detailing and by maintaining these distinct courses within the program, they are able to keep the identity of interior design and met the detailed scope required by CIDA.

Another informant that was interviewed mentioned that when interior design and architecture are in the same department, the [CIDA] standards are not in focus because some feel [in their department] the interior design program is thought of as inferior to architecture. This lack of respect [understanding or appreciation] for interior design as a recognized profession has even gone as far as saying the “interior designer is equivalent to interior decorator”.

These comments perplexed the faculty who were seeking a direction for their program, but after reviewing literature they found, König (2010) concurred, revealing that architects may undermine the professional status of interior designers by undermining their work, work methods, or the ontology of interior design by equating the discipline with decoration, and therefore render it inferior due to its decorative (perceived superficial) and gender aspects [4]. Van Der Merwe’s (2014) personal narrative coincided,

When my partners and I...decided to shift our core focus from architecture to interior design some time back, we bore the brunt of many jokes from our other architect friends.

Whilst most remarks were like water of a duck's back, the one that touched a nerve was the terminology of 'inferior designer'. Although it may have just been some friendly banter at the time, the reality was that architects, by and large, tended to view interior designers as people who came in after the 'real' work was done. Although this mindset has changed dramatically over the years, there is still a strong notion that interior designers don't create space, they decorate it, and, as such, traditional architects perhaps do not place enough value on the scope of work that interior designers do. (para 4)

The interviews and survey of literature, revealed interior design is in fact often seen as inferior to architecture; in some cases, the profession/discipline is even dismissed. A study by White and Dickson (1993) revealed that the architects are often given credit for interior works even though the firm may employ a team of interior designers. Due to this inferiority, an informant that was interviewed stated interior design has been called the "poor sister" by the architecture community. These notions stem from years of struggle (The American Architect and Building News, 1888, p. 226).

Still trying to understand the relationship between interior design and architecture in an academic setting, an alternative view surfaced-architects believe they are themselves interior designers (or can do their job), and that interior design should not be a licensed profession. An interview with a design school's department chair revealed the political organizational issues in the industry. The informant mentioned the clashes with The American Institute of Architects (AIA), International Interior Design Association (IIDA), and American Society of Interior Designers (ASID) in their academic setting. Upon a review of literature, Whitemyer (2006) revealed that despite the support of many architects and firms, the strongest adversary to current efforts to license the interior designer has been the National Council of Architectural Registration Boards (NCARB) and the American Institute of Architects (AIA) however,

The official policy of AIA regarding interior design legislation states that its board recognizes the value of interior designers but doesn't feel there is justification to support changing existing state licensing laws. 'The AIA opposes practice or title regulation of individuals or groups other than architects and engineers,' states the organization's Architectural Practice and Title Regulations Policy Statement. (para 9)

Many disadvantages stem from the potential blurred educational accreditation outcomes, being called the "poor sister" [a statement an informant used] and the industry politics. These hinderances can become troublesome and reflected negatively in a university governance. An informant from another interview revealed that challenges surface when interior design programs are nestled with architecture programs and the faculty need to find their voice in elections. The informant revealed, with larger architecture programs, the architecture faculty outweigh the interior design faculty, thus votes can be swayed in architectures' favor based on pure numbers. An informant bluntly stated, "Separating interior design from architecture creates a more balanced, equalized voting structure".

An informant did explain that to combat some of these challenges the term, "Interior Architecture", was developed. This term was adopted by academic programs to inference or imply a level of knowledge to the interior scope (White, 2009). Many academic institutions have

seized this designation for their program title. In 2016 there was an open discussion on the AIA page requesting opinions on the term (Santini, 2016). Comments surfaced, publicizing the confusion in language:

I feel the term Interior Architecture blurs the line between Architects and Interior designers and there's already an issue in this regard!

We don't use the term 'Nurse Doctor', there is nothing wrong with being an interior designer, it is a good profession.

I dislike the term "Interior Architecture." Are there "Exterior Architects"? To me, the term was invented to avoid the "stigma" of calling oneself an Interior Designer. (para 1)

White (2009) states, “The use of the term interior architecture is viewed by some as yet another threat to a profession that others would argue has constantly had to defend itself since the title of interior design was adopted in the 1960s.” (para 4) While the term is not ideal, it was done to establish a foothold on the perception of the interior design professional field with the architectures’ already established position. However more knowledge reveals, interior design can actually exist without the building a new structure thus nullifying the term. Weigand (2013b) illuminates,

In the mid-1900s, the idea of the speculative building and a shift from corporate ownership to leasing began to separate the design of the building from the design of its interior. Increased complexity in the design of interior environments requires more focused expertise and skill sets. Specialization and expertise are required for workplace, healthcare, and institutional environments. Career tracks for interiors include sustainable interior materials, ergonomics, design for multiple populations, ADA compliance, workplace design, facilities management, interior lighting etc. Professional organizations developed (IIDA, ASID, IDC, IFI), academic accreditors (CIDA), and regulatory agencies (CIDQ) have helped to improve quality and professionalize the interior design discipline. (p. 125)

Interior Design, is a qualified profession and clearly distinct from architecture. Orpilla, 2018 confirms as she speaks to future interior designers,

Having practiced the profession for more than 30 years, I’ve come to understand that what an interior designer does—what you will learn to do in the years ahead—is create an experience using space and light. Because interiors don’t typically last as long as the shells that enclose them, our field has existed for many years in the shadow of ‘starchitect’ exteriors. But it’s important to remember that most of us experience architecture from the inside out. Interior design is part psychology, part cultural anthropology, and part behavioral science practiced through mediums of space and time. Like gardening or even farming, it is the art of creating living ecosystems. (You probably didn’t realize you were studying to be a farmer). (para 3)

Leaning on the literature, interviews, surveys, and case studies, while contemplating their position, the faculty understood the significant value of each profession: architecture and interior design. However, sentiments of the interior design programs establishing a flavor of their own, separate from architecture, became evident. The answer to their first question, “Should the [interior design] program be in a department with architecture?”, began to carve an disadvantageous association, and the faculty established that the interior design’s program in concentration would remain separate a separate entrée from the architecture program for the next ten years.

Independent Interior Design: The Single Course Meal

As the second question arose, “Should the [interior design] program be an independent department?” the solution was quickly measured, but this option was removed from the table due to challenges foreseen with capital. If interior design were to become its own department, a suggestion a few faculties mentioned, an administrative coordinator would need to be hired, a department chair would need to be appointed, thus funds would have to be allocated to the new department. Given the scope of this exploration, a ten-year outlook, this option was quickly scrapped.

Interior Design and Construction Management: A Fresh Pairing

So, should interior design remain in the department with construction management program? Given the sudden merger of the interior design and construction management programs, the faculty in interior design were thoroughly taking time to consider their future position and discover more about their new relationship with construction management.

In October of 2017 the interior design faculty developed an advisory board to aid, support, and promote the interior design program. Serving to provide curriculum guidance and elevate the program’s visibility within the interior design industry and its related stakeholders, this board was a chopping board for the study at hand. Of the 48 members representing 23 firms, the board began discussing the new merger with college of architecture and planning and the future of the interior design program. During a May 2018 advisory meeting [5] members stated, “The connection to CAP [College of Architecture and Planning] is good...it makes you unique to other schools”. An advisory board [alumni] member stated, “We [now] have a whole environment [Architecture, Landscape Architecture, Urban Planning and the Department of Construction Management and Interior Design] which can mimic real-world firms”. Case studies of various educational structures in use at other nearby institutions confirmed that this college has a stimulating recipe for the built environment. Nearby schools had a few of the ingredients, but not all, setting this college apart regionally.

Having a competitive edge (unique curriculum) amongst other regional designs schools, interviews with other design school leaders revealed that they had not seen a construction management/interior design merger but thought it was timely and the way the profession was headed. Additionally, America’s Best Architecture & Design Schools survey is conducted annually by Design Intelligence (2018); not one on the top ten had interior design and construction management merged thus a potential to soar with distinctiveness in rankings.

Building from those comments, the members of the advisory began to speak about specific advantages between the connection, “The merger between CM[construction management] and ID[interior design] is brilliant!”. “...the interior design program has a solid foundation because the future of ID *is* with CM”, and “...it’s cutting edge; a good place to be”. The advisory members shared they thought the relationship with construction management was more advantageous than with architecture because it is a unique combination not seen in other design schools, but one that is a carbon copy of how the design relate in the real world, “ID works closely with CM, even more so than architecture”. An alumni who also served on the advisory board said, “So many courses overlap [between CM and ID]...it seems only right that they stay linked”. The board continued, “both disciplines, CM and ID, are detail-minded”.

These comments stimulated a comparison of accreditation standards for CIDA (Council for Interior Design Accreditation, 2018) with Construction Management’s accreditation. The American Council for Construction Education (2019), established in 1974, was formed in response to the desire for recognition and quality professional education of graduates in construction management. Upon comparing, a unique distinction, yet similar level of detail was depicted.

Graduates, from an accredited ACCE bachelor’s degree program, should be able to:

- Create written communications appropriate to the construction discipline.
- Create oral presentations appropriate to the construction discipline.
- Create a construction project safety plan.
- Create construction project cost estimates.
- Create construction project schedules.
- Analyze professional decisions based on ethical principles.
- Analyze construction documents for planning and management of construction processes.
- Analyze methods, materials, and equipment used to construct projects.
- Apply construction management skills as a member of a multi-disciplinary team.
- Apply electronic-based technology to manage the construction process.
- Apply basic surveying techniques for construction layout and control.
- Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- Understand construction risk management.
- Understand construction accounting and cost control.
- Understand construction quality assurance and control.
- Understand construction project control processes.
- Understand the legal implications of contract, common, and regulatory law to manage a construction project.
- Understand the basic principles of sustainable construction.
- Understand the basic principles of structural behavior.
- Understand the basic principles of mechanical, electrical and piping systems. (*p. 13*)

Although NAAB (architecture) and CIDA (interior design) standards could potentially be misinterpreted as the same content due to overlapping terminology(if uneducated about the

details), the ACCE and CIDA standards that intersect or overlap are limited (i.e. written communication, project schedules); it seems the ACCE (construction management) standards are more of an additional layer to CIDA (interior design) standards, a frosting of detail that is not necessarily highlighted within CIDA, including: project safety plan, accounting and cost control, construction process, layout and control. In fact, the pairing of construction management and interior design could help facilitate a more multi-disciplinary team, a standard which is generally a stretch for construction management programs to meet in an academic setting.

Literature supports this stratum revealing the future launch of the design-build industry, “[that a more collaborative endeavor is occurring] going beyond the traditional limits of design and construction to investigate the organizational and management processes that link owner, designer, contractor, and supplier” (Clipson, 1992). Iyer (2010) reveals the relevance of construction project management in the interior design curriculums stating, “Interior Designers specializing as construction project managers are in demand world over.” (pg 1)

The faculty also reviewed their program numbers and found the two programs, Construction Management and Interior Design, had a combined total of 293 students and 17 faculty (tenure, tenure track, contract and adjunct) with eight interior design and nine construction management faculty, two were shared between both programs - a healthy balance of faculty that understood one another’s scope and were knowledgeable (and respectful) in the individual disciplines. Of those 293 students, 111 are part of the interior design program. The remaining departments within the college had 526 students and 57 faculty (tenure, tenure track, contract and adjunct). The College of Architecture and Planning is the largest college at the university and The Department of Construction Management and Interior Design is the largest in college [6]. The numbers looked wholesome and enrollment seemed to be increasing by the next admission.

While investing their position, using the literature, interviews, surveys, case studies, and college data, the faculty established that the Department of Construction Management and Interior Design was a good pairing. The faculty established that the interior design program in concentration shall remain in connection with the construction management program for the next ten years. Their connection increased the value of the college which now includes departments of architecture (with historic preservation), landscape architecture, urban planning, as well as interior design and construction management, making them the ultimate five course meal.

Discussion

With the interior design faculty in absolute agreement that the Department of Construction Management and Interior Design would be a successful pair for the next ten years, opportunities to enhance their curriculum surfaced. One comment from the advisory board meeting was illuminated as a launching point, “There are lots of design schools in [the surrounding area] and they challenge you to set your own standards. We need to think in terms of what we [Department of Construction Management and Interior Design] can contribute to CAP instead of what we can use from their curriculum [to build healthy competition amongst design departments and regional universities]”.

This unique partnership could set this college apart from others around, and the faculty needed to lean into this secret ingredient to market and support the other thriving departments and

programs. The faculty determined they needed to educate others in their college on their specific industry to shape a culture of appreciation and respect. The scale, scope, and detail the Department of Construction Management and Interior Design brings needed to be shared in hands-on approaches to be understood, thus the faculty would seek opportunities to collaborate with other departments in the college to emphasize the impact of their skillsets. Consideration of joining the first-year design curriculum, merging design studios and students on competitions and immersive learning projects, inviting jurors from others advisory boards to sit on the Department of Construction Management and Interior Design reviews, collaborating on grants and scholarship were all part of the plan.

Between the two programs, Construction Management and Interior Design, a minor for each was already established, the skills acquired in those dual degrees were quite beneficial. An advisory board alumnus mentioned how her construction management minor became a point of leverage when they were applying and securing her job upon graduation. One employer of the department's graduates said the goal should be to maximize and market the minor options.

The faculty also decided to build on the existing and shared/cross-disciplined faculty in future searches. They would emphasize hiring those who could teach in both fields, both contract and adjunct. With preferred qualifications suggestions being:

- At least one degree in Interior Design from an accredited program
- Ability to teach courses in Construction Management
- Post-secondary teaching experience
- Familiarity with design/building software
- Evidence of involvement in professional organizations in the discipline
- Professional registration/certification

New course ideas surfaced as well. Many interior design students were already taking electives and course for their minor from the construction management curriculum but the interior design faculty developed two required courses to be embedded in their curricula to maximize the pairing. The first course, a junior level course, Construction Documents for Interior Designers was developed to supplement the course students were taking as an elective or part of their minor from construction management. The new required course was designed to practice the fundamentals of construction documentation for interior designers. Students would use a previously designed space to develop a comprehensive set of construction drawings and schedules which would enable an owner or contractor to provide a rough order of magnitude cost for the project.

The second required course, Construction Management for Interior Design, again, junior level, would provide a necessary baseline knowledge vocabulary and understanding of the role and activities of the interior designers as it relates to architects, material suppliers, inspectors and constructors in the commercial building process. It would discuss the skills generally required for sound project management typically associated with the interior design profession. The elements of a project and the role and responsibilities of the Project Manager would be studied. Students would also be acquainted with site supervision, financial, labor, safety, equipment, contracting issues, typical construction delivery systems, the planning and contracting, estimating

methodology, contract forms and provisions related to liability for interior design and construction companies. The International Building Code and the importance of contract language negotiations would be discussed.

The changes to the interior design curriculum, opportunities to collaborate, and the vision to educate others would leverage the Department of Construction Management and Interior Design partnership and afford a healthy contribution to College of Architecture and Planning.

Conclusion

Although many assume architecture and interior design should be hand-in-hand in an educational setting, there is a unique finite scale and level of detail brought by the Department of Construction Management and Interior Design to the others in the College. As an opportunity to mimic industry relations, the merger of construction management and interior design provides a comprehensive educational pairing that spans the entire design process: Strategic Planning-Programming, Conceptual Development-Schematics, Design Development, Construction Documentation, Construction Maintenance and Administration, affording the students a cutting-edge education by mirroring trends of the design/build industry practice. This construction management and interior design pairing is fresh and exciting; a unique medley ready to impact the future of the design-build world.

Endnotes

[1] The historical data of the programs and departments can be found via Ball State University Library Archives and Special Collections via https://www.bsu.edu/academics/libraries/research/archives-special-collections#accordion_collections

[2] The historical data of the programs and departments can be found via Ball State University Library Archives and Special Collections via https://www.bsu.edu/academics/libraries/research/archives-special-collections#accordion_collections

[3] The historical data of the programs and departments can be found via Ball State University Library Archives and Special Collections via https://www.bsu.edu/academics/libraries/research/archives-special-collections#accordion_collections

[4] Or, potentially due to the influence of media (Waxman and Clemons, 2007).

[5] Advisory board and meeting minutes with detailed records can be found in department archives. <https://www.bsu.edu/academics/collegesanddepartments/construction-management-interior-design/about-us/advisoryboard>

[6] Department admission numbers can be located by contacting <https://www.bsu.edu/academics/collegesanddepartments/cap>

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