# *Architecture Program Report- Candidacy*

Pennsylvania College of Technology (PCT)

May 9, 2023

National Architectural Accrediting Board, Inc.

# Architecture Program Report-Candidacy (APR-C)

*2020 Conditions for Accreditation*
*2020 Procedures for Accreditation*

| | |
|---|---|
| **Institution** | **Pennsylvania College of Technology** |
| **Name of Academic Unit** | School of Engineering Technologies / Construction & Architectural Technologies Division |
| **Degree(s)** *(check all that apply)*<br><br>**Track(s)** *(Please include all tracks offered by the program under the respective degree, including total number of credits. Examples:*<br><br>*150 semester undergraduate credit hours*<br><br>*Undergraduate degree with architecture major + 60 graduate semester credit hours*<br><br>*Undergraduate degree with non-architecture major + 90 graduate semester credit hours)* | ☒ Bachelor of Architecture<br><br>Track: 152 semester undergraduate credit hours<br><br>☐ Master of Architecture<br><br>Track:<br><br>Track:<br><br>☐ Doctor of Architecture<br><br>Track:<br><br>Track: |
| **Application for Accreditation** | **Initial Candidacy** |
| **Year of Previous Visit** | Fall 2022 - Eligibility |
| **Current Term of Accreditation**<br>*(refer to most recent decision letter)* | Eligibility |
| **Program Administrator** | Geoff Campbell, Architecture Department Head, gcampbel@pct.edu<br><br>Ellyn Lester, Assistant Dean of Construction & Architectural Technologies Division, ealester@pct.edu |
| **Chief Administrator** for the academic unit in which the program is located<br>*(e.g., dean or department chair)* | Dr. Bradley Webb, Dean of the School of Engineering Technologies, bwebb@pct.edu |
| **Chief Academic Officer of the Institution** | Dr. Nesli Alp, Vice President for Academic Affairs & Provost, Nesli.Alp@pct.edu |
| **President of the Institution** | Dr. Michael Reed, President of the College, mjr18@pct.edu |
| **Individual submitting the APR** | Geoff Campbell, Architecture Department Head |
| **Name and email address of individual to whom questions should be directed** | Geoff Campbell, gcampbel@pct.edu |

**Submission Requirements:**

- The APR-C must be submitted as one PDF document, with supporting materials
- The APR-C must not exceed 20 MB and 150 pages
- The APR-C template document shall not be reformatted

NAAB

## INSTRUCTIONS FOR APR-C

**Initial Candidacy**
The APR-C for initial candidacy must include the following appendices:

- the Plan for Achieving Initial Accreditation (documenting the program's progress)
- the eligibility memorandum

**Continuation of Candidacy**
The APR-C for continuation of candidacy must include the following appendices:

- the previous VTR
- the Plan for Achieving Initial Accreditation (documenting the program's progress)
- the eligibility memorandum

Instructions for the preparation, format, and submittal of the APR-C are published in the "Guidelines to the Accreditation Process."

NAAB

## INTRODUCTION

**Progress since the Previous Visit (limit 5 pages)**

In this Introduction to the APR, the program must document all actions taken since the previous visit to address Conditions Not Met and Causes of Concern cited in the most recent VTR.

*The APR must include the exact text quoted from the previous VTR, as well as the summary of activities.*

**Program Response:** The previous visit was the virtual visit related to eligibility which occurred on October 11th and 12th, 2022. The program was accepted as eligible for candidacy on December 16, 2022. A link to the eligibility decision letter is provided on the preceding page and in the appendix. There was no VTR associated with the eligibility visit. Since there was no VTR, there were no "Conditions Not Met" or "Causes of Concern" expressed by the visiting team.

Since the previous virtual site visit in October of 2022, Penn College of Technology Architecture Department has made progress toward our pursuit of NAAB accreditation in the following ways:

- A search committee was established to hire a new full-time faculty member for the fall 2023 semester. At the time of the submission of this document to NAAB, the committee offered the position to a top candidate.
- The College has hired an architect to further develop our plan to move the department to another building on campus to expand the space available to the Architecture Department. Several meetings with various parties including the architect, the College's construction manager, and the architecture faculty have taken place.
- The Architecture Department has expanded our advisory committee from six to eight members.
- The Architecture Department has developed a mission statement.
- The Architecture Department has made progress in the development of policies related to Learning and Teaching Culture (LTC) and Diversity, Equity, and Inclusion (DEI). The LTC and DEI policies are being developed by a committee comprised of students, faculty, and administrators. There have been two meetings with this committee in the past two weeks. The policy is expected to be finalized and implemented by the beginning of the fall 2023 semester.
- The Architecture Department has continued with our marketing efforts, which now includes the promotion of our Bachelor of Architecture program.
- The Architecture Program Report for Initial Candidacy has been developed and will be submitted in early May 2023. We expect the Initial Candidacy virtual site visit from NAAB to occur in the early part of November 2023.

**Program Changes**

Further, if the Accreditation Conditions have changed since the previous visit, the APR must include a brief description of changes made to the program as a result of changes in the Conditions.

*This section is limited to 5 pages, total.*

**Program Response:** N/A.

NAAB

# 1—Context and Mission

To help the NAAB and the visiting team understand the specific circumstances of the school, the program must describe the following:

The institutional context and geographic setting (public or private, urban or rural, size, etc.), and how the program's mission and culture influence its architecture pedagogy and impact its development. Programs that exist within a larger educational institution must also describe the mission of the college or university and how that shapes or influences the program.

*Program must specify their delivery format (virtual/on-campus).*

**Program Response:**

Pennsylvania College of Technology (Penn College), a public institution located in a rural area in north central Pennsylvania, offers associate's, bachelor's, combined bachelor's/master's, and master's degrees, along with certificates and competency credentials in around 100 majors, emphasizing hands on learning and applied technologies. In fall 2022, 4,200 students were enrolled in classes at four locations: the main campus in Williamsport, PA (population 27,603); the Lumley Aviation Center in Montoursville, PA; the Advanced Automotive Technology Center in Williamsport, PA; and the Schneebeli Earth Science Center in Allenwood, PA. Additionally, a number of degrees are offered 100% online. Penn College provides an academic environment with modern facilities, an exceptional array of student-centered services, and academic programs with an overall graduate placement rate of 96% (2018–21) in high-demand industries.

The College began in 1914 as a high school offering adult training to meet the growing demands of local industry. In 1941, the emphasis shifted to vocational training and the Williamsport Technical Institute (WTI) was established. The passage of the Community College Act of 1963 led to the next evolutionary stage: the Williamsport Area Community College (WACC), which used the WTI programs and facilities as the starting point for continued growth and development. During the 1970s and 1980s, enrollment grew, physical property expanded, and curricular offerings increased. Economic shifts in the 1980s led school districts to withdraw sponsorship when the original 20-year sponsorship agreement expired. Community colleges still required a local sponsor, thus the city of Williamsport stepped in to fill that role and keep the institution open.

The presidents of Penn State University and the Williamsport Area Community College, along with the governor of Pennsylvania, announced the intent to create an affiliation between Penn State and Williamsport Area Community College, creating the next iteration of the institution. On July 1, 1989, Williamsport Area Community College became Pennsylvania College of Technology, "Penn College," a special mission affiliate of Penn State. As an affiliate rather than a branch campus, Penn College positioned itself as Pennsylvania's premier technical college, maintaining governing and curricular independence. With this evolutionary stage, the College added bachelor's degrees to its curriculum portfolio and on-campus housing to meet the changing needs of its students. The Architecture Department launched the four-year "Building Science and Sustainable Design" Bachelor of Science degree in 2009. It was later renamed as "Architecture and Sustainable Design".

The mission and goals of Penn College are at the core of its identity as a college of *applied technology*. Time and resources are invested in defining, articulating, and assessing strategic goals that support the mission and reaffirm the College's unique position in higher education within the state and the nation. The mission is guided by the College's commitment to providing its students an array of opportunities to achieve their goals. The College offers a variety of academic degrees and certificates, workforce training, and co-curricular experiences that are supported through the mission, vision, values, and strategic plan.

In the summer of 2022, the Board of Directors approved new mission and vision statements and refined Penn College's core values, strategic goals, and initiatives. The College derives its strength and focus from its mission, which articulates the close alignment with hands-on, experiential learning opportunities that are responsive to career-focused education. The mission reflects the College's longstanding commitment to guiding its students to work and lead in a wide range of fields. In alignment with the Mission, the College's current strategic plan (2022 - 2026) was developed as a 4-year initiative with three overarching goals and associated initiatives.

The College's mission and vision statements as well as its core values, strategic goals, and initiatives, provide direction to the College's three schools: Business, Arts & Sciences, Nursing & Health Sciences, and Engineering Technologies (which houses the Architecture Department).

**The Architecture Department:**

As an integral part of the College and the school, the Architecture Department has influenced and is influenced by each in turn. As such, the department fully embraces the College's mission to prepare the next generation of industry leaders by integrating real-world experiences throughout the program. In addition to the obvious connection to industry, this has led to an ongoing focus on sustainability that is still a primary focus of the department today.

The architecture program at Penn College was first offered by the Williamsport Technical Institute (predecessor of Penn College) in 1941 as an architectural drafting program to assist with the war effort. It has continually grown and been updated over the years by the faculty and advisory board. The two-year associate degree was the only degree offered until 2009, with the inception of the Bachelor of Science (BS) degree in Building Science and Sustainable Design. The program has always balanced technical proficiency with architectural theory and the four-year degree allowed for an additional emphasis on sustainability. The current BS degree (renamed "Architecture and Sustainable Design") was updated to make it possible for graduates to go through accredited Master of Architecture (M. Arch.) programs in 2-3 years, as about 20% of the graduates were applying to M. Arch. programs.

From the beginning, the various iterations of the architecture program have all required on-campus instruction emphasizing experiential opportunities that integrate the inspirational with the creative while focusing on real-world application. The new B. Arch. program (designated as ARC) is a face-to-face, on campus degree, but it does include four courses that are taught in a remote or hybrid format.

In the mid 1990's, total enrollment in the two-year associate degree was approximately 85 or 90 students. This number grew steadily to 136 in 2007 and jumped to 164 during the first two years of the four-year degree. With this increase in enrollment, the full-time architecture faculty grew to six, with the newest hire having been with the program for 13 years. Current enrollment is approximately 100 students.

As of the spring semester of 2023, the Architecture Department was offering the following three degree programs:

- The two-year Associate of Applied Science in Architecture (AX)
- The four-year Bachelor of Science in Architecture and Sustainable Design (ASD)
- The five-year Bachelor of Architecture (ARC)

Graduates from our existing architecture programs are in high demand. With our "hands-on" focus emphasizing the tools and technology used in industry (including AutoCAD, Revit, Photoshop, Lumion, and various energy analysis programs), our graduates enter the workforce with the ability to be productive team members from day one. They have a strong foundation in building fundamentals, technology, sustainability, and design. We frequently hear from employers who tell us that they seek out our graduates for this reason. We intend to carry this same "hands-on" focus into the new Bachelor of Architecture degree.

The program's role in and relationship to its academic context and university community, including how the program benefits–and benefits from–its institutional setting and how the program as a unit and/or its individual faculty members participate in university-wide initiatives and the university's academic plan. Also describe how the program, as a unit, develops multidisciplinary relationships and leverages unique opportunities in the institution and the community.

**Program Response:**

Penn College's focus on technological and STEM education benefits the department's programs in many ways.

1. Students can enroll in unique, multidisciplinary electives such as BCT103 Construction Hand and Power Tools; BCT 104 Construction Safety & Equipment, and CCM 140 Woodworking – Art, Craft & Design.

Faculty have recently been involved in university-wide initiatives:

1. Rob Wozniak played a role in the Economic Adjustment Assistance grant from the Economic Development Administration.
2. Naim Jabbour took a leadership role in establishing the National Science Foundation Built Environment (BE) Scholars S-STEM Program.
3. Tuna Saka served on the Curriculum Committee (2018-2021) and on the Academic Standards and Issues Governance Committee (2014-2018).
4. Geoff Campbell has served on several committees including the Core Education Review Committee that reviewed the Colleges' general education requirements, and the Curriculum Committee.
5. Dorothy Gerring has been selected to serve as an instructor for the American Institute of Architects' (AIAU) inaugural U.S. Department of Energy Solar Decathlon® Professionals Practicum program, which began in summer 2022.

Faculty are also involved in the wider community, locally, regionally and nationally. For example:

1. Rob Wozniak serves on the Williamsport's Historic Architectural Review Board,
2. Dorothy Gerring is just stepping down after six years of service to the Pennsylvania Higher Education Department (PAHE).
3. Naim Jabbour served as USGBC Students National Chair (2011-2015).
4. Ellyn Lester served as a juror for the 2022 National Association of Women in Construction's International Project Excellence Awards.

The architecture faculty are also involved in an upcoming multidisciplinary project with the Greater Lycoming Habitat for Humanity. Although numerous faculty across the campus have been involved with Habitat previously, including adjunct faculty member David Daneker - who served as a past president and board member for more than a decade – this project is unique. It provides an opportunity for many departments to work together on a new home that will be designed and constructed entirely by the College's students, faculty, and staff.

The ways in which the program encourages students and faculty to learn both inside and outside the classroom through individual and collective opportunities (e.g., field trips, participation in professional societies and organizations, honor societies, and other program-specific or campus-wide and community-wide activities).

**Program Response:**

Field trips are a significant part of several courses in the Architecture Department. Students tour architect's offices and construction sites in ACH 101 "Introduction to Architecture". Many field trips have been arranged in various building materials courses and others. Design studios

occasionally include field trips to buildings related to the current studio projects, as was done recently with a trip to a local bank, a middle school, and a UPS facility.

Some highlights of extracurricular programming offered over the years include the annual Green Building Fair from 2001-2004, which showcased sustainable products, speakers and hands-on workshops. The biennial Alumni day, which began in 2017 and will take place again this year in April, brings back alumni in a round-table format to showcase their career paths and projects.

Student teams have recently participated in the U.S. Department of Energy's Solar Decathlon Design Challenge. A team from PCT was chosen as one of four grand prize winner finalists in the second Race to Zero Student Competition in 2015. In some years the DOE competition has been incorporated into an upper-level studio. In the spring of 2022, a team of Penn College students advanced to the finals of the Office Building Design competition. As such, the team traveled to Golden, Colorado to compete and had an unforgettable experience. Students have also designed projects for local charities and organizations. Seniors graduating from the ASD program have had their work showcased at The Gallery at Penn College for the past four years.

Architecture students have used their design studio projects to help the College with on-campus projects. Examples include the Victorian House (constructed at the center of campus), the Dr. Welch Maker Space, the Fish Real Estate Leadership Challenge Course, and the sign for the Larry A. Ward Machining Technologies Center. The architecture club at the College has existed since the mid-1960s and the architectural program began offering international travel opportunities to students in the early 1990s. Currently, students have a choice of two "Global Experience" courses focusing on the Architecture of various European locations and including a two-week trip to various cities at the beginning of summer.

Summary Statement of 1 – Context and Mission
*This paragraph will be included in the VTR; limit to maximum 250 words*.

**Program Response:**

Pennsylvania College of Technology, a public institution located in north central Pennsylvania, offers certificates, associate's, bachelor's, and master's degrees, in more than 100 majors, emphasizing hands on learning and applied technologies.

The Architecture program began in 1941 to assist in the war effort. The program transitioned to an associate degree in the mid-1960s, and almost fifty years later, a B.S. degree was added in 2009.

The five-year professional Bachelor of Architecture (B. Arch.) is intended for those who wish to pursue a career as a practicing architect. The program focuses on four main areas: building fundamentals, design, technology, and sustainability. The B. Arch. offers students an in-depth engagement in the fields of architecture and sustainability, augmented by the broader Penn College mission of applied technical innovation and hands-on learning. This major promotes a healthier, more energy efficient way to build, which reduces negative environmental impacts and slows the depletion of natural resources. Students study sustainable approaches to materials, construction, site design, building design, community planning, and the generation and conservation of energy. In addition, students receive training in building science fundamentals and are introduced to historic preservation and the renovation and reuse of existing buildings. Graduates should be equipped with the knowledge to design buildings that make positive contributions to their communities.

## 2—Shared Values of the Discipline and Profession

The program must report on how it responds to the following values, all of which affect the education and development of architects. The response to each value must also identify how the program will continue to address these values as part of its long-range planning. These values are foundational, not exhaustive.

Design: Architects design better, safer, more equitable, resilient, and sustainable built environments. Design thinking and integrated design solutions are hallmarks of architecture education, the discipline, and the profession.

**Program Response:**

The program introduces, develops, and re-enforces understanding of design as a multidimensional process via the various design studio courses throughout the five years of the curriculum. Our students are exposed early on to the iterative nature of design processes in architecture and trained to utilize appropriate methodologies to fully explore design problems and solutions. Students are also involved in research opportunities at various levels tailored towards developing and discovering novel opportunities and approaches. Students receive continual feedback to assess their design development level and skills via portfolio reviews and juries.

The early studios focus on a fluid and iterative design process involving conceptual thinking and a hands-on approach. In later studios, sustainability-centered approaches are used as a guiding roadmap complemented with a comprehensive design thinking/process approach. Each studio is designed to include a topical summary and course brief that outlines outcomes, expectations, and subject matter. This information is incorporated into each course abstract and syllabus. The outcomes specified are geared towards attaining the required knowledge and skills necessary to earn a professional degree with the view of ultimately becoming a licensed architect. The School of Engineering Technologies has a digital archive of all course abstracts and syllabi. These are routinely reviewed and assessed.

Through various courses and activities, the program introduces students to various career options available to graduates, traditional and non-traditional. The first semester “Introduction to Architecture” seminar course (ACH 101) is one example where students are introduced early on to the possibilities available within the built environment. Additionally, various other courses offer students the opportunity to explore the work done by those focusing on such diverse AEC industry career paths as code officials, CAD technicians, specification writers, structural and MEP engineers, BIM modelers, sustainability experts, and designers. The College conducts exit surveys and post-graduation surveys to assess and discover where students are in their professional careers.

One of the main pillars of the program is its focus on technical skills and technology. Students are exposed to a wide array of technology-based components starting in the first year of instruction in which they use industry tools such as AutoCAD and Revit to create construction documents for residential and commercial projects. Various courses are designed to develop and expand the student’s technical skills through their progression within the program. Professional skills are embedded in various courses in every year of the curriculum. Course assessments as well as portfolio reviews are routinely used to evaluate student development.

The program and its student groups offer workshops, events, and activities that focus on exploring the latest trends and issues in our industry. Furthermore, we routinely seek counsel and guidance from our industry advisory board regarding impactful matters happening within

the AEC community. One such example of this would be the biennial Alumni Day that the department has held in recent years. This alumni event is geared towards dialogue, discussion, and engagement between students and alumni.

Environmental Stewardship and Professional Responsibility: Architects are responsible for the impact of their work on the natural world and on public health, safety, and welfare. As professionals and designers of the built environment, we embrace these responsibilities and act ethically to accomplish them.

**Program Response:**

Sustainability and environmental stewardship are significant focus areas for the new ARC program. To that end, many of the courses are designed and structured with sustainability at their core. Similarly, several courses are tailored towards exploring the role of architects and designers within the built environment and society at large. The department follows a pedagogical approach focusing on problem solving and tackling societal challenges. For example, all students in the program are required to take the LEED Green Associate exam in the "Sustainable Rating Systems" course (BSD 450), enabling our graduates to be on the forefront of sustainable rating systems and standards and well equipped to handle the growth and evolution of green buildings. Our exam pass-rates have ranged between 80% and 100%, depending on the year. Moreover, building performance modeling is embedded in all upper-level studios, allowing students to explore the ramifications of their design decisions and the impact pragmatically and systematically on the environment. We've also had student teams that have entered the DOE Race to Zero and Solar Decathlon competitions for many years. All students are required to take an introductory sustainability course in the second year of the curriculum. Another example that highlights the program's focus on environmental stewardship is our focus on sustainable urbanism and community planning via a course that tackles sustainability on a macro urban scale.

Alongside environmental stewardship, the program aligns itself with professional and ethical values in various ways. The program includes one course focused on "Professional Practice" (BSD 482). Students are also routinely exposed to representatives from local architecture firms. This begins in the first semester of the program with the "Introduction to Architecture" (ACH 101) course which includes visits to the offices of several local architects and a construction manager. This is followed throughout the program with feedback from industry members at design juries. Finally, for the past several years we have been holding a biennial Alumni Day in which students hear from alumni about their careers.

Equity, Diversity, and Inclusion: Architects commit to equity and inclusion in the environments we design, the policies we adopt, the words we speak, the actions we take, and the respectful learning, teaching, and working environments we create. Architects seek fairness, diversity, and social justice in the profession and in society and support a range of pathways for students seeking access to an architecture education.

**Program Response:**

Penn College, through processes that include both faculty and staff (as well as in some cases students), has developed mission, values, goals, and policies that reflect desirable qualities of equity, diversity, and inclusion.

In order to help with the burden of student debt, the College provides many scholarships. One such scholarship, established by a former Architecture Department faculty member, is available exclusively to architecture program students with financial need. Another

scholarship, intended for female architecture program students, was established by a current faculty member.

With the addition of the new ARC program, the Architecture Department now has three degrees which provide differing paths into the profession. A graduate with an A.A.S. degree in Architecture (the AX degree) can join the workforce after only two years of education. The B.S. degree in "Architecture and Sustainable Design" (ASD) adds two years of school focused on sustainability and design. ASD graduates can either join the workforce upon graduation, or they can pursue an NAAB accredited M. Arch. Typically, about 15 or 20% of our ASD graduates have taken this approach. With the addition of the new five-year ARC program, we expect that the number of graduates pursuing an M. Arch. at other schools will drop. But there will likely be a small number who continue to take this route. We expect that over time, the vast majority of our bachelor's degree students will obtain the B. Arch. (ARC) degree. But we will retain the ASD degree for those students who either prefer it, or who are unable to complete the ARC program for whatever reason. These three degrees provide an array of varied access points to the industry and multiple career paths for our graduates.

In the past we have had articulation agreements with several community colleges in Pennsylvania. Over time, after changes to our curriculum, these have not been updated, but we still get transfer students from these colleges (including Harrisburg Area Comm. College, Luzerne County Comm. College, Johnson College, and Thaddeus Stevens College of Technology). Minority students and students whose families are in the lower income brackets often attend community colleges. Accepting these students into our program, if they meet the established transfer criteria, helps to promote diversity and inclusion in our student body.

The Architecture Department established an articulation agreement last year with the M. Arch. program at Rochester Institute of Technology (RIT) in Rochester, NY. This provides another path to licensure for the graduates of our ASD program. RIT has also established a scholarship for our graduates which helps make this option more affordable.

The department is considering the establishment of the NCARB Integrated Path to Architectural Licensure (IPAL) at Penn College. This program could significantly cut the time to licensure, which would have many benefits for our graduates.

The Penn College Career Fair occurs in both the fall and spring and brings our students into contact with many AEC industry firms looking for new employees. The College also offers several services that help students prepare for the Career Fair and for employment in industry.

In order to promote a positive and respectful learning and teaching environment, the Architecture Department has developed a learning and teaching culture policy during the current (2022-2023) academic year. Similarly, a department policy related to equity, diversity and inclusion has been established. These policies will be implemented in the fall of 2023.

Knowledge and Innovation: Architects create and disseminate knowledge focused on design and the built environment in response to ever-changing conditions. New knowledge advances architecture as a cultural force, drives innovation, and prompts the continuous improvement of the discipline.

**Program Response:**

Penn College is a teaching institution, focused on immersing students with hands-on interaction in their subject matter. Many of the architecture classes include both lecture and lab time in order to allow for research, discovery, and application of concepts. Because of

the program's focus on sustainability, and the consistent advances, changes, and improvements of the planned and built environment, faculty are presenting cutting edge information in many classes as well as having students research new products and innovations which are then applied to their assignments/projects. As our students progress through the curriculum, the amount and level of detail required in projects increases. Students typically create posters that describe their projects, and these posters are hung in the hallway so that everyone can study them. Students may also acquire material samples that are put on display and used in class. In many architectural classes students do in-depth precedent and case studies of published projects which connects them to current practice and ideas.

Students have completed research and applied it to their classroom projects. One example is in BSD 322 ("Sustainable Community Planning & Design") where students create and deploy a visual preference survey. They have to collect, tabulate, and share their outcomes and then use the results to design a sustainable neighborhood plan for an existing urban neighborhood.

Students have the option to participate on the DOE Solar Decathlon Design team, which is typically inter-disciplinary and fosters innovation in designing for the local community. Penn College team submissions have been regularly cited for their innovative solutions and they have won two awards over the years. The 2022 submission used CLT construction and reached out to local manufacturers.

Faculty frequently bring in local professionals and take their students on field trips in order to connect them with the architectural and construction fields. The course ACH 101 ("Introduction to Architecture") tours students through local architectural offices. Faculty have incorporated Zoom or Teams meetings with professionals for lectures, Q&A, and critiques. For example, in ACH 281 ("Architectural Design Studio III") the faculty worked with Lois Arena from Steven Winter Associates to provide lecture and critique in the development of the students' design projects over half a semester, introducing them to Passive House concepts and applications. Faculty have worked with the local branch of the Larson Design Group to use their Lidar equipment to document buildings and spaces. Students have used the resultant point clouds to generate Revit models for their renovation projects. The BSD 400 "Internship" course provides students with the opportunity to work in an office and use that time to achieve course credit. It is required that the internship is in a setting where the student is learning and applying sustainable design practices.

Penn College has the Dr. Welch Workshop: a makerspace with a wide variety of equipment that is open to all students. The space itself was the result of designs from architecture students in the ACH 281 studio. It has a "clean" space that has computers, 3D printers, sewing machines, a vinyl cutter, breadboarding materials (electronic components that interact with, control and monitor devices), large worktables and a lounge area. The "dirty" space has wood and metal working equipment, including CNC, laser cutting, and both MIG and TIG welding. Use of the equipment is free, as are certain materials. Students must provide their own materials for specific projects. The staff of the makerspace provide training and supervision to students on the equipment. Architecture faculty and students have used the space to complete assignments such as the recent cardboard chair projects in the fifth semester design studio.

In the architecture studio space, we have five MakerBots and a laser cutter, as well as printers and scanners from small to large format. The architecture computer labs have Alienware computers to process VR and real-time rendering/walkthroughs using programs such as Lumion and Twinmotion. The Madigan Library has an immersive virtual reality lab that is available for use by anyone during regular library hours.

Students integrate the use of building performance modeling into their later design studio projects: studying energy use intensity (EUI), material impacts, as well as the success of daylighting strategies. They do multiple studies to determine optimal massing, window to wall ratios, and orientation.

Leadership, Collaboration, and Community Engagement: Architects practice design as a collaborative, inclusive, creative, and empathetic enterprise with other disciplines, the communities we serve, and the clients for whom we work.

**Program Response:**

There are many opportunities for students at Penn College to be engaged in leadership roles. There are student seats on College committees in governance, student government organization (SGA), and in clubs across campus. The architecture club has leadership positions for President, Vice President, Secretary, Treasurer, and Class Representative. The Office of Student Engagement offers many leadership opportunities. Some of the unpaid opportunities include Lead-PCT and W.I.L.D. (Wildcats Immersed in Leadership Development), both are five-week leadership experiences; and Wildcat Events Board (WEB) which does event planning, marketing, and social events on-campus. There are paid opportunities including: Peer Facilitator (diversity, health and wellness, or community topics); various jobs available on-campus; and Student Conduct Board member (a student who is appointed to hear matters involving alleged infractions by a student, student organization, or student group that is in violation of the Student Code of Conduct).

Every year for the past four years the graduating Bachelor of Science (ASD) students have had a showcase of their design projects at The Gallery, an exhibition space at Penn College. Invitations are sent out not only to the architecture advisory board, but also to The Gallery's email list of thousands. The past few shows have included an on-line viewing of projects. The faculty have also sent invitations to high school architecture programs to visit the show and tour the architecture facilities.

The architecture department regularly receives requests from members of the public for help with drawings for various small projects. When these requests come from charitable organizations looking for ideas, they frequently become design studio projects. Similar projects from the general public are posted so that interested students can respond. We recommend that the students ask for payment. We do not compete with local architects for services.

High School (H.S.) students have several ways that they can earn Penn College credits prior to attending the College. Most of these are opportunities through dual enrollment, where the College has faculty that work with H.S. faculty to offer general classes such as English and math at no cost to the student. The architecture department offers ACH 135 "Architectural Computer-Aided Drafting", which is also free to the student. The coursework that a student completes is shown on their Penn College transcript and can fulfill certain requirements for their major. These classes can also be transferred to other institutions.

Another option for H.S. students is to attend the College's pre-college programs (previously called summer camps). In the summer of 2022, there were 17 camps with students staying overnight in campus dorms for between 2 to 5 days. Students who attend one camp receive a $1000 yearly scholarship in the form of a tuition deduction split across semesters. If a student attends two camps, they receive an annual $2000 scholarship. The cost of the architecture pre-college program is currently $500 for 5 days.

The Architecture Department has offered the "Architecture Odyssey" pre-college program since the summer of 2016. This program has been a consistently strong draw for high school students with an interest in architecture. The yearly total enrollment has been as follows:

2016 = 17 attendees
2017 = 22 attendees
2018 = 14 attendees
2019 = 20 attendees
2020 = cancelled due to COVID-19
2021 = cancelled due to COVID-19
TOTAL = 73

Of these 73, roughly one third (a total of 25 students) have enrolled at Penn College. 16 have enrolled in architecture programs, and the remaining 9 have enrolled in the following programs:

Construction Management
Electronics Technology – Robotics & Automation
Engineering Design Technology
Graphic Design
Industrial Design
Pre-Nursing
Surveying Technology

Last year, the department signed an articulation agreement with the Architecture Department at Rochester Institute of Technology (RIT) enabling our ASD graduates to matriculate to the RIT M. Arch. program with certain benefits in terms of time to completion and costs. Although we don't have formal articulation agreements with Penn State University or the University of Maryland, we do have similar understandings with these M. Arch. programs which have drawn a large number of our graduates.

Business and Industry Partnerships:
We partner with business and industry to keep our curriculum, technology, and equipment current, preparing our graduates to compete successfully in the global economy.

Here are examples of Architecture Department partnerships:

- Industry representation in the program advisory committee, which serves as a platform for academic and industry collaboration to ensure that our curriculum reflects emerging technical and workforce needs.
- Industry representatives have collaborated with certain architecture courses including design studios on various projects. In one recent case, a local architecture firm provided a high-end 3D scanner and a technician to show the students how to create a digital point cloud for an existing building. This former graduate subsequently came to the studio to show them how to insert the point cloud file into Revit and use it to create a base model.
- Local architects and construction managers frequently participate as guest jurors in the design studios.
- Architects and local developers have shared real world project information and drawings which have become the basis of design studio projects.
- The construction department at Penn College hosts Penn State University architecture students each year in the masonry lab where they get hands-on experience working with masonry.

Lifelong Learning: Architects value educational breadth and depth, including a thorough understanding of the discipline's body of knowledge, histories and theories, and architecture's role in cultural, social, environmental, economic, and built contexts. The practice of

architecture demands lifelong learning, which is a shared responsibility between academic and practice settings.

**Program Response:**

A practitioner of Architecture and Sustainable Design must be adept at recognizing when additional information is required and must be able to locate, evaluate and use the appropriate information to complete the task. Due to rapid change in technology, today's AEC industry workers must stay abreast of the knowledge, techniques, and tools available to them. Therefore, the skills that support lifelong learning must be part of the curriculum. At Penn College, "information literacy" outcomes must be defined as part of a course abstract for every new and revised course. These outcomes help to ensure that our graduates are well prepared for lifelong learning.

For example, the following "information literacy" outcomes are specified for BSD 332, the fifth semester design studio focused on passive design.

In order to successfully complete this course, students must practice these information literacy skills by:

- becoming familiar with the library's Passive Design related books,
- accessing relevant information via online databases found on the library website,
- assessing the timeliness and credibility of online information sources to ensure valid results, and
- keeping abreast of and documenting new developments in the field.

The architecture faculty continually bring field experts into the classroom both physically and virtually to present materials and provide feedback on student projects. Coursework requires that students research buildings, materials, and techniques: emphasizing that they will have to continue to research information throughout their careers. Through the Alumni Day, students hear about different directions graduates have taken their careers and what changes and new developments they had to keep abreast of.

Students have opportunities to work with students in other majors: for example, the architecture students have worked with the baking students to create space visualizations for their pastry businesses. The DOE Solar Decathlon team is typically an interdisciplinary group including architecture, construction management, residential construction management, concrete, HVAC, and construction majors.

The Office of Student Engagement offers a wide variety of opportunities and services that students are encouraged to take advantage of, making the most of their out-of-class experiences. The mission of the Office of Student Engagement is to provide a student-centered holistic collegiate experience for our students, providing an environment that promotes:

- Co-curricular learning
- Effective transitions into, and through, collegiate life
- Social Awareness
- Commitment to diversity
- Productive use of leisure time
- Leadership and group development through a wide range of programs and services
- Passion for lifelong learning

NAAB

## 3—Program and Student Criteria

These criteria seek to evaluate the outcomes of architecture programs and student work within their unique institutional, regional, national, international, and professional contexts, while encouraging innovative approaches to architecture education and professional preparation.

Section 5.2 “Planning and Assessment” and section 5.3 “Curricular Development” give a detailed overview of the assessment approach employed by the College and the Architecture Department. The College’s assessment approach includes a mapping between program courses and program goals to define the courses which will be assessed for each goal. In an effort by the Architecture Department to marry the College’s existing assessment approach with that required by the NAAB, a map between the B. Arch. program goals and the NAAB criteria has been developed. The PCT NAAB PC SC Matrix on the next page shows the courses which are utilized to provide evidence related to the various NAAB criteria. The items highlighted in red are common between the NAAB PC SC Matrix and the College’s Program Goal Assessment Matrix. Items in blue are not required by the College Program Goal Assessment Matrix but are included in the NAAB driven assessment efforts.

As stated in section 5.3, program goals and RSOs for all courses are assessed at least once every five years as part of the Penn College Assessment Plan and Process. Course assessment includes an analysis component conducted at the time of the assessment. A summary of the assessment efforts conducted each year is submitted to the administration. All such items are incorporated into the department’s “program review” which occurs once every five years. This assessment approach and schedule is applicable to all courses outlined in the NAAB Program and Student Criteria below. Note that benchmarks may differ from one course to another. Faculty are free to set their own benchmarks in order to improve student performance.

PENNSYLVANIA COLLEGE OF TECHNOLOGY

# NAAB Shared Values, Program and Student Criteria Matrix

| | | YEAR 1 | | | | | | | | | | YEAR 2 | | | | | | | | | | YEAR 3 | | | | | | YEAR 4 | | | | | YEAR 5 | | | Non-Curricular | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FALL | | | | | SPRING | | | | | FALL | | | | | SPRING | | | | | FALL | | | SPRING | | | FALL | | | SPRING | | FALL | SPRING | | ACTIVITIES | | | | | | | | | |
| | | Introduction to Architecture | Architectural Graphics | Architectural History | Building Materials I | Architectural Computer-Aided Drafting | Building Materials II | Construction Documents-Residential | Building Codes & Accessibility | Architectural Design Studio I | Architectural Graphics II | Construction Documents - Commercial | Structural Principles | Architectural Design Studio II | Sustainability: Building & Living Green | Computers & Estimating | Environmental Systems | Structural Applications | Architectural Design Studio III | Elec. (ACH258, CAD247, GLB270, GLB271 | | Architectural Design Studio IV | Detailing & Applications | Historic Preservation | History of Modern Architecture | Sust. Community Planning & Design | Architectural Design Studio V | | Renewable Energy Technologies | Architectural Design Studio VI | Architectural Theory | Sustainable Rating Systems | Architectural Design Studio VII | Architectural Thesis Studio I | Professional Practice | Architectural Thesis Studio II | | Career Fair | Alumni Day | PCT Code of Conduct | Annual Learning & Teaching Culture Review | Mentoring Program | LEED Green Associate Exam | Gallery Exhibit | Solar Decathlon | Architecture Club at Penn College |
| | | ACH 101 | ACH 111 | ACH 112 | ACH 119 | ACH 135 | ACH 129 | ACH 139 | ACH 141 | ACH 181 | ACH 211 | ACH 239 | ACH 243 | ACH 261 | ACH 262 | ACH 264 | ACH 240 | ACH 253 | ACH 281 | ARC Elec | | BSD 332 | BSD 340 | BSD 410 | ACH 272 | BSD 322 | BSD 352 | | BSD 420 | BSD 432 | BSD 442 | BSD 450 | BSD 452 | BSD 472 | BSD 482 | BSD 492 | | | | | | | | | | |
| Credit Hours | | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | | 5 | 3 | 3 | 3 | 3 | 5 | | 3 | 5 | 3 | 3 | 5 | 6 | 3 | 6 | | | | | | | | | | |
| **Shared Values** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Design | | | | | | | | | | I | | | | I | | | | | D | | | D | | | | D | D | | D | | | R | | | R | | | | | | D | | | |
| Environ. Stewardship & Prof. Resp. | | | | | | | | | | | | | | | I | | | | | | | | | | D | | | | | | R | | | | | | | | | | D | | |
| Equity, Diversity & Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | R | | | | | | | | | | | |
| Knowlege & Innovation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | R | | | | D | | | | D | | |
| Ldrshp Collab. & Comm. Engagement | | | | | | | | | | | | | | | | | | | | | | | | | D | | | R | | | | | | | | | | | | | | D | |
| Lifelong Learning | | | | | | | | | | | | | | | I | | | | | | | | | | | | | | | | | | | | R | | | | D | | D | | | |
| **PC** | **Program Criteria** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PC.1 | Career Paths | I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | R | | | D | | | | | | |
| PC.2 | Design | | | | | | | | | | | | | | | | | | | | | | | | D | | | D | | | R | | | R | | | | | | | | | |
| PC.3 | Eco. Knowledge & Respon. | | | | | | | | | | | | | | D | | | | | | | | | | D | | | | | | | | | | | | | | | R | | | |
| PC.4 | History & Theory | | | I | | | | | | | | | | | | | | | | | | | | D | | | | | R | | | | | | | | | | | | | |
| PC.5 | Research & Innovation | | | | | | | | | | | | | | | | | | | | | | | | | | | D | | | | | R | | | | | | | | | |
| PC.6 | Leadership & Collaboration | | | | | | | | | | | | | | | | | | | | | | | | D | | | | R | | | | | | | | | | | | | |
| PC.7 | Learning & Teaching Culture | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | R | | | | I | D | | | | |
| PC.8 | Social Equity & Inclusion | | | | | | | | | | | | | | | | | | | | | | | | D | | | | | | | | | | R | | | | D | D | | | | |
| **SC** | **Student Criteria** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SC.1 | HSW in Built Environment | | | | | | | | I | | | | | | | | | | | | | | | | D | | | | | | | | | | | | | | | | | | |
| SC.2 | Professional Practice | I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | R | | | | | | | | | |
| SC.3 | Regulatory Context | | | | | | | | I | | | | | | | | | | | | | | | | | | | | | | | | | | R | | | | | | | | | |
| SC.4 | Technical Knowledge | | | | | | | | | | | D | | | D | | | R | | | | | D | | | | | D | | | | | | | | | | | | | | | |
| SC.5 | Design Synthesis | | | | | | | | | | | | | D | | | | | | | | | | | | | | | | | R | | | | | | | | | | | | |
| SC.6 | Building Integration | | | | | | | | | | | | | | | | D | | | | | | | | | | | | | | | | | | R | | | | | | | | | |

NAAB Assessment aligns with PCT Curriculum Map

NAAB Assessment not in PCT Curriculum Map

I = Introducing, D = Developing, R = Reinforcing

## 3.1 Program Criteria (PC)

A program must demonstrate how its curriculum, structure, and other experiences address the following criteria.

**PC.1 Career Paths**—How the program ensures that students understand the paths to becoming licensed as an architect in the United States and the range of available career opportunities that utilize the discipline's skills and knowledge.

**Program Response:**

Students are introduced to many possible career paths available to those in the field of architecture in the first semester "Introduction to Architecture" (ACH 101) course. They are lectured on this topic and are given the opportunity to tour local architecture related firms. When there is one available, students in ACH 101 often visit a construction site. This class also includes a lecture on the requirements to become a licensed architect. In subsequent semesters, there are several courses which focus on the work done by various stakeholders in the industry. The structures sequence (ACH 243 and ACH 253) provides an overview of the work done by structural engineers. The local building codes official has often been a guest in ACH 141 "Building Codes & Accessibility". Students learn about the work done by specifications writers in the two construction documents courses (ACH 139 and ACH 239). The work of an estimator is introduced in "Computers & Estimating" (ACH 264). Many courses, including the design studios and BSD 482 "Professional Practice" provide a strong sense of the work of an architect. Finally, students are exposed to practitioners from industry via the fall and spring Career Fair events and the department "Alumni Day" activity which brings alumni back to the College to share their own career paths.

The following courses are specified in the PC/SC Matrix for assessment of criteria PC.1:

**"Introduction to Architecture"** (ACH 101)

Overview of the architectural field. Three weekly lecture presentations followed by four weekly visits to architectural and construction related businesses and one alumni presentation.
**Assessment used as primary evidence:** three graded exercises, four graded tours, one quiz, and a final exam.
**Benchmark:** "75% of the students will earn 75% or higher."

**"Professional Practice"** (BSD 482)

Advanced study of the professional aspects of running an architecture firm. Includes the responsibilities of the architect, client, and builder as well as ethical standards of behavior.
This course will not be offered until the spring of 2027. Assessments are expected to include projects, reports, and exams.
**Assessment used as primary evidence:** Projects, reports, and exams.
**Benchmark:** "75% of the students will earn 75% or higher"

Supplemental Activities:

**Career Fair**

Students are required to attend the fall and/or spring Career Fair to fulfill an assignment in a designated course.
**Assessment used as primary evidence:** Survey or written assignment related to discussion between students and firm representatives at the Career Fair.
**Benchmark:** "75% of the students will earn 75% or higher."

**PC.2 Design**—How the program instills in students the role of the design process in shaping the built environment and conveys the methods by which design processes integrate multiple factors, in different settings and scales of development, from buildings to cities.

**Program Response:**

The program has a design studio in each semester except for the first semester. Each studio builds upon the skills and methods developed in the previous one. There is an early focus on the fundamentals of design, iterative processes, and design thinking ability. This focus is continued through the entire studio sequence culminating in the fifth year "Architectural Thesis Studio II".

Courses in architectural graphics, building materials, codes, working drawings, structural applications, environmental systems, historic preservation, community planning, and sustainability supplement the studio sequence. They prepare students to apply knowledge of these topics to the studio projects and assignments.

Each of the nine studio courses has an emphasis area as depicted below:

| | |
|---|---|
| "Architectural Design Studio I" | Design Fundamentals |
| "Architectural Design Studio II" | Site Design |
| "Architectural Design Studio III" | Design Process |
| "Architectural Design Studio IV" | Passive Design |
| "Architectural Design Studio V" | Adaptive Reuse |
| "Architectural Design Studio VI" | Integrated/Whole Building Design |
| "Architectural Design Studio VII" | Net Zero / Sustainable Design |
| "Architectural Thesis Studio I" | Research and Programming |
| "Architectural Thesis Studio II" | Comprehensive Design |

The following courses are specified in the PC/SC Matrix for assessment of this criteria:

**"Sustainable Community Planning & Design"** (BSD 322)

Theory and application of the development of sustainable sites at scales ranging from a small neighborhood to a community or an urban plan. Essay quizzes on various aspects of community planning, lab projects applying various community planning and site protection issues, planning experiments.
**Assessment used as primary evidence:** Final project.
**Benchmark:** "70% of the students will earn 70% or higher."

**"Architectural Design Studio VI"** (BSD 432)

Design studio focused on whole building design including a significant collaborative commercial project. Written summaries of reading assignments, and generation of vision/benchmarks/goals.
**Assessment used as primary evidence:** project poster, comprehensive project booklet, and grading rubrics for various phases of development for one or two course projects.
**Benchmark:** "75% of the students will earn 70% or higher."

**"Architectural Design Studio VII"** (BSD 452)

Design studio focused on Net Zero/Sustainable design. Case/precedent studies, periodic design development critiques focusing on various aspects of the design, and periodic formal student presentations/critiques including final design jury/review.

**Assessment used as primary evidence:** project poster, comprehensive project booklet, and grading rubrics for various phases of development for one or two course projects.
**Benchmark:** "75% of the students will earn 70% or higher."

**"Architectural Thesis Studio II"** (BSD 492)
Design studio focused on comprehensive design solutions. Case/precedent studies, periodic design development critiques focusing on various aspects of the design, and periodic formal student presentations/critiques including final design jury/review.
**Assessment used as primary evidence:** Thesis project poster, comprehensive thesis project booklet, and grading rubrics for various phases of development.
**Benchmark:** "75% of the students will earn 70% or higher."

**PC.3 Ecological Knowledge and Responsibility**—How the program instills in students a holistic understanding of the dynamic between built and natural environments, enabling future architects to mitigate climate change responsibly by leveraging ecological, advanced building performance, adaptation, and resilience principles in their work and advocacy activities.

**Program Response:**

Ecological Knowledge and sustainability are strong emphasis areas of our programs. Most of the courses in the final three years have a sustainability focus. Our four-year bachelor's degree program (which utilizes many of the same courses as the B. Arch.) is a Bachelor of Science degree in "Architecture and Sustainable Design".

Students are first introduced to the concepts of sustainability during the building materials courses which occur in the first and second semester of the program. The textbook for these courses is "Fundamentals of Building Construction: Materials and Methods, 7th Edition" by Allen. The environmental impacts of the various materials are reviewed as the materials are first introduced. This is followed in the third semester by ACH 262 "Sustainability: Building & Living Green", a course focusing on the many facets of sustainability.

BSD 340 "Detailing & Applications" – includes study of detailing for high performance sustainable buildings.
BSD 410 "Historic Preservation" – addresses the sustainability of preservation and adaptive re-use projects.
BSD 332 "Architectural Design Studio IV" – emphasizes passive design and typically includes a Passive House focused residential project.
BSD 352 "Architectural Design Studio V" – focuses on adaptive re-use and the use of BIM to conduct energy analyses as a tool to aid the designer.
BSD 420 "Renewable Energy Technologies" – provides an overview of renewable energy sources and their installation.
BSD 400 – "Internship" - an optional course providing exposure to real-world building science and sustainable design practices.
BSD 432 – "Architectural Design Studio VI" – emphasizes integrated/whole building design approach during all stages of development to achieve high building performance.
BSD 452 – "Architectural Design Studio VII" – focuses on net-zero design, sustainable materials, energy efficiency, renewable energy technologies, sustainable rating systems.
BSD 492 – "Architectural Thesis Studio II" - focuses on integrated design process to develop high performance buildings.

The courses specified in the PC/SC Matrix for primary evidence have a strong sustainability focus:

**"Sustainability: Building & Living Green"** (ACH 262)

Overview of sustainability as it relates to both buildings and to living in a sustainable fashion. Weekly lecture outlines, 14 quizzes, and 6 journals.
**Assessment used as primary evidence:** Two exams and two comprehensive projects:

**Sustainable building case study** emphasizing various facets of high-performance building related to LEED, LBC, or Passive House.

**Research project** that explores topics such as ecological footprint, policy, materials, water, and energy.

**Benchmark:** "75% of the students will earn 70% or higher."

**"Sustainable Community Planning & Design"** (BSD 322)

Theory and application of the development of sustainable sites at scales ranging from a small neighborhood to a community or an urban plan. Essay quizzes on various aspects of community planning, lab projects applying various community planning and site protection issues, and planning experiments.
**Assessment used as primary evidence:** Final project.
**Benchmark:** "70% of the students will earn 70% or higher."

Supplemental Activities:
**LEED Green Associate Exam**

Students in BSD 450 are required to take the LEED Green Associate exam by the end of week 9. This external assessment provides further evidence of student comprehension of ecological issues and how they might be addressed by those involved in the design and construction of buildings.

**PC.4 History and Theory**—How the program ensures that students understand the histories and theories of architecture and urbanism, framed by diverse social, cultural, economic, and political forces, nationally and globally.

**Program Response:**

Students learn about the history of architecture and forces which have helped to shape it primarily in two courses. "Architectural History" (ACH 112) is a global overview of architectural history from prehistory to modern times. This first-year course also counts as a designated Arts Perspective elective and includes the study of the geopolitical, societal, cultural and religious forces that influence the built environment. The second required architectural history course is "History of Modern Architecture" (ACH 272), focusing on the period from the mid-nineteenth century to the present. Topics in ACH 272 include the study of the forces that have impacted the development of design thinking and the ways in which buildings can reflect or express these various forces. Buildings in both courses are tied back to the architectural theories of their time. BSD 442 "Architectural Theory" is an in-depth overview of architectural theories over time, focusing on the major theories that have shaped the built environment. These three courses in combination provide our students with a strong foundation in architectural history and theory.

The following courses are specified in the PC/SC Matrix for assessment of this criteria:

**"Architectural History"** (ACH 112)

A global overview of architectural history from prehistory to modern times. Sixteen-week lecture-style classroom setting with an associated lab. The course has two significant projects and a final exam.
**Assessment used as primary evidence:** final exam.
**Benchmark:** "70% of the students will earn 70% or higher."

**"History of Modern Architecture"** (ACH 272)

Worldwide overview of modern architectural history from the mid-nineteenth century to the present. Sixteen-week lecture-style classroom setting, no lab. The course has three graded exams, two projects, fourteen homework assignments and a final exam.
**Assessment used as primary evidence:** final exam.
**Benchmark:** "80% of the students will earn 75% or higher."

**"Architectural Theory"** (BSD 442)

Global introduction to architectural theories over time. Weekly readings, weekly discussions, short writing exercises, group presentations. This course will not be offered until the fall of 2025. Assessments are expected to include case studies and term papers.
**Assessment used as primary evidence:** Case study research midterm project and an end of semester historiographic term paper.
**Benchmark:** "75% of the students will earn 70% or higher."

**PC.5 Research and Innovation**—How the program prepares students to engage and participate in architectural research to test and evaluate innovations in the field.

**Program Response:**

Much of our coursework requires students to research items relevant to the subject matter and make informed decisions based on the research. Gathered information is used in a variety of ways including presentations, evaluation and comparison, and application. Research is integrated into the design studio sequence starting in the first studio, ACH 181, where students learn to study climatic information and evaluate precedents to inform their design decisions. In later studios they also research materials and products for performance and life cycle analysis as well as determining how to appropriately use these items in the design and construction of their projects. This type of incremental innovation allows students to discover how to evaluate their projects through comparison, performance, and aesthetic development. In BSD 432, "Architectural Design Studio VI", student teams research, interview experts, tour facilities, and learn to synthesize client needs into a program. The ability to identify vision, goals, and benchmarks for a design allows for innovative experimentation to meet those benchmarks. Each student in the "Architectural Thesis Studio I" (BSD 472) is required to produce their own programming.

The "Renewable Energy Technologies" (BSD 420) course requires research and application in relationship to the power production required to reach net zero. Projects in the course allow students to discover the relationship between projects they've designed and providing appropriate equipment.

The following courses are specified in the PC/SC Matrix for assessment of this criteria:

**"Renewable Energy Technologies"** (BSD 420)

Overview of renewable energy using sunlight, wind, tides, geothermal, biomass and biofuels. Quizzes on aspects of building performance and renewable energy systems. labs using various equipment and wiring.
**Assessment used as primary evidence:** Projects showing design of renewable energy systems for PV, solar thermal, and small wind. Projects showing evaluation of building performance.
**Benchmark:** "70% of the students will earn 70% or higher."

**"Architectural Thesis Studio I"** (BSD 472)

Design studio focused on programming and research for thesis project. Weekly critiques, case studies, a review of seminal research papers and thesis projects. Formal presentations including a midterm and final review. Periodic schematic design reviews will occur near the end of the semester.
**Assessment used as primary evidence:** Student generated thesis program and initial draft of thesis booklet.
**Benchmark:** "75% of the students will earn 70% or higher."

**PC.6 Leadership and Collaboration**—How the program ensures that students understand approaches to leadership in multidisciplinary teams, diverse stakeholder constituents, and dynamic physical and social contexts, and learn how to apply effective collaboration skills to solve complex problems.

**Program Response:**

The third semester course – "Sustainability: Building & Living Green" (ACH 262) is where students are introduced to the importance and impacts of building performance and personal ecological footprints. They also learn about diversity and inequity across the globe in resources, support, biophilia and social issue awareness.

"Sustainable Community Planning & Design" (BSD 322) is one of the first courses where students work in collaborative teams on larger projects and are introduced to the importance of community engagement, diversity, walkability, green spaces (parks and plazas), and third places (community space that isn't home or work).

Students in "Detailing and Applications" (BSD 340) work in collaboration with others to plan and construct building assemblies. In the fall of 2022, the first offering of the course, students created full-scale wall mockups including a 2018 IECC code minimum insulated light wood framed wall section, and a wall section designed to meet the Passive House criteria.

The sixth semester design studio (BSD 352) typically includes a collaborative design build project. In recent years this two-week project involved teams of 3 or 4 in the design and construction of a cardboard chair. Students typically utilize the College's makerspace in constructing the chairs. Once complete, the chairs are displayed and tested by the public in the gallery area in front of the design studios.

In the "Architectural Design Studio VI" (BSD 432), students learn how to collect and distill information from large groups of people following the basic principles set forth by the National Charrette Institute's consensus-based charrette process, how to identify stakeholders both from the community and in a team, and how to build a team through collaboratively creating vision, goals, and benchmarks on a project. Students collaborate

as a group and create a unique team project in the course. Students take ownership and leadership within their team to complete the project.

The following courses are specified in the PC/SC Matrix for assessment of this criteria:

**"Sustainable Community Planning & Design"** (BSD 322)
Theory and application of the development of sustainable sites at scales ranging from a small neighborhood to a community or an urban plan. Essay quizzes on various aspects of community planning, lab projects applying various community planning and site protection issues, and planning experiments.
**Assessment used as primary evidence:** Collaborative projects and activities.
**Benchmark:** "70% of the students will earn 70% or higher."

**"Architectural Design Studio VI"** (BSD 432)
Design studio focused on whole building design including a significant collaborative commercial project. Written summaries of reading assignments, and generation of vision/benchmarks/goals.
**Assessment used as primary evidence:** project poster, comprehensive project booklet, and grading rubrics for various phases of development for one collaborative team course project.
**Benchmark:** "75% of the students will earn 70% or higher."

**PC.7 Learning and Teaching Culture**—How the program fosters and ensures a positive and respectful environment that encourages optimism, respect, sharing, engagement, and innovation among its faculty, students, administration, and staff.

**Program Response:**

The program is developing a Learning and Teaching Culture (LTC) policy, with input from the faculty, the administration, the advisory committee, and a representative panel of students. This policy is expected to be finalized and implemented in time for the start of the fall 2023 semester. The entire Architecture Department student body, faculty, and specific administrators will participate in an annual review of the department LTC policy in the spring (beginning spring 2024). After the data from this review is analyzed, there will be a formal review and the possibility of revision of the policy by the established LTC committee. Dr. Nathan Woods, the special assistant to the President for Inclusion Transformation will take part in these efforts. During the past year, Dr. Woods gave presentations to student groups across campus that included the B. Arch. students.

All students in the Architecture Department and in the College make a commitment to adhere to the Penn College Code of Conduct. The Code of Conduct includes the following language:

> Upon admission to Penn College, students make the unqualified commitment to responsible conduct, both on and off campus, which conforms to the generally accepted standards of adult behavior within an academic community. Students are expected to show courtesy and respect for faculty, staff, and fellow students, in all personal contacts.

The program encourages faculty and students toward innovation in various ways, including professional development opportunities for faculty, and funding related to

extracurricular competitions for students and faculty mentors. Three of the current six faculty have written and published textbooks while employed as full-time faculty in the Architecture Department.

Topics related to the need to create a respectful, inclusive environment both while in school and in the workforce will be addressed in BSD 482 “Professional Practice”.

The following courses and supplemental activities are specified in the PC/SC Matrix for assessment of this criteria:

**“Professional Practice”** (BSD 482)

Advanced study of the professional aspects of running an architecture firm. Includes the responsibilities of the architect, client, and builder as well as ethical standards of behavior. This course will not be offered until the spring of 2027. Assessments are expected to include projects, reports, and exams.
**Assessment used as primary evidence:** Projects, reports, and exams.
**Benchmark:** "75% of the students will earn 75% or higher"

**Supplemental Activities:**
**Annual Learning and Teaching Culture Review**

Student body, faculty, and administrators will participate in an annual review of the department LTC in the spring (beginning spring 2024). The data from this review will be analyzed and utilized to help shape the LTC.
**Assessment used as primary evidence**: Survey or similar tool.
**Benchmark**: To Be Determined.

**PCT Code of Conduct**

Upon admission to PCT all students agree to adhere to the College Code of Conduct. Failure to comply with the College Code of Conduct can result in censure, suspension, or expulsion and is reviewed before the College Code of Conduct board which is made up of students, faculty and staff.

**PC.8 Social Equity and Inclusion**—How the program furthers and deepens students' understanding of diverse cultural and social contexts and helps them translate that understanding into built environments that equitably support and include people of different backgrounds, resources, and abilities.

**Program Response:**

All Penn College departments including the Architecture Department have a “Program Welcome” meeting every fall to welcome all new and transfer students. This meeting includes an introduction to the LTC policy and various non-curricular activities such as the architecture club, AXP opportunities, and Solar Decathlon participation. The department is creating a P.L.A.T.O. website that all students will have access to where department activities are announced. The department, with input from current students, is developing a mentoring program for new students (first year and transfer), whereby each new student will be matched with a student mentor from the upper classes.

Coursework throughout the curriculum emphasizes the importance of understanding and designing for a variety of people. Design studio projects often include requirements related to ADA and visitability. Projects have also focused on clients with limited means as well as diverse backgrounds. Examples from across the curriculum include:

- "Architectural Design Studio III" (ACH 281) included program requirements for gender neutral locker and shower facilities as well as bathrooms;
- "Architectural Design Studio IV" (BSD 332) designed a Habitat for Humanity (HFH) home which meets the PHIUS "passive house" criteria;
- "Building Codes & Accessibility" (ACH 141) has a lab activity related to ADA and Universal Design where students experience disabilities through being blindfolded and using crutches and a wheelchair. The goal is for the students to put themselves in the shoes of a disabled person to learn from the experience and hopefully become a better, more sensitive designer. This experience is tied to material that they have previously learned regarding IBC Ch11, ICC A117.1 and Universal Design considerations;
- "Sustainable Community Planning & Design" (BSD 322) had a group that focused their community design on refugees, which resulted in many interesting discussions related to how their plans could help promote a sense of respect, dignity, and inclusion in the community;

During the past year, Dr. Woods, the special assistant to the President for Inclusion Transformation, gave presentations to student groups that included the B. Arch. students.

The following courses and supplemental activities are specified in the PC/SC Matrix for assessment of this criteria:

**"Sustainable Community Planning & Design"** (BSD 322)

Theory and application of the development of sustainable sites at scales ranging from a small neighborhood to a community or an urban plan. Essay quizzes on various aspects of community planning, lab projects applying various community planning and site protection issues, planning experiments.

**Assessment used as primary evidence:** Final project.
**Benchmark:** "70% of the students will earn 70% or higher."

**"Professional Practice"** (BSD 482)

Advanced study of the professional aspects of running an architecture firm. Includes the responsibilities of the architect, client, and builder as well as ethical standards of behavior. This course will not be offered until the spring of 2027. Assessments are expected to include projects, reports, and exams.

**Assessment used as primary evidence:** Projects, reports, and exams.
**Benchmark:** "75% of the students will earn 75% or higher"

**Supplemental Activities:**

**Annual Learning and Teaching Culture Review**

Student body, faculty, and administrators will participate in an annual review of the department "culture" in the spring (beginning spring 2024). The data from this review will be analyzed and utilized to help shape the "culture".

**Assessment used as primary evidence**: Survey or similar tool.
**Benchmark**: To Be Determined.

**Mentoring Program**

Student mentors who volunteer from the upper classes will be paired with incoming first year and transfer students. Every incoming student will have at least one mentor.

**Assessment used as primary evidence**: Mentors and mentees will be surveyed.
**Benchmark**: 75% of those surveyed had at least 5 meaningful interactions with their mentor/mentee throughout the academic year.

## 3.2 Student Criteria (SC): Student Learning Objectives and Outcomes

A program must demonstrate how it addresses the following criteria through program curricula and other experiences, with an emphasis on the articulation of learning objectives and assessment.

**SC.1 Health, Safety and Welfare in the Built Environment**—How the program ensures that students understand the impact of the built environment on human health, safety, and welfare at multiple scales, from buildings to cities.

**Program Response:**

Health, safety and welfare in the built environment is introduced in a variety of ways through courses such as “Building Materials I” (ACH 119), “Building Materials II” (ACH 129), “Construction Documents – Residential” (ACH 139), “Architectural Design Studio I” (ACH 181), “Building Codes & Accessibility” (ACH 141), and “Construction Documents – Commercial” (ACH 239). These courses address appropriate materials and detailing, paying attention to egress and views, and understanding and application of codes and accessibility. The remainder of the studio sequence build on these, requiring students to do code checks for their projects, select materials that are better for the environment and the building occupants, and create projects that include appropriate daylighting and biophilia. “Sustainable Community Planning & Design” (BSD 322) addresses how urban design impacts the health, safety, and welfare of its inhabitants.

The following courses are specified in the PC/SC Matrix for assessment of this criteria:

**“Building Codes & Accessibility”** (ACH 141)
Overview of zoning and building codes. Lecture presentations along with a guest lecture from a code official address introductory content related to the International Building Code, International Residential Code, International Energy Conservation Code, and ICC A117.1 - Accessible and Usable Buildings and Facilities to address ADA requirements.
**Assessment used as primary evidence:** Weekly quizzes, a midterm exam and final exam.
**Benchmark:** "75% of the students will earn 75% or higher"

**“Sustainable Community Planning & Design”** (BSD 322)
Theory and application of the development of sustainable sites at scales ranging from a small neighborhood to a community or an urban plan. Essay quizzes on various aspects of community planning, lab projects applying various community planning and site protection issues, planning experiments.
**Assessment used as primary evidence:** Final project.
**Benchmark:** “70% of the students will earn 70% or higher.”

**SC.2 Professional Practice**—How the program ensures that students understand professional ethics, the regulatory requirements, the fundamental business processes relevant to architecture practice in the United States, and the forces influencing change in these subjects.

**Program Response:**

Professional practice related content is covered primarily in two courses – “Introduction to Architecture” (ACH 101) and “Professional Practice” (BSD 482).

ACH 101 is an eight-week course which includes lectures related to career opportunities in the AEC industry, the phases in an architectural project, and the requirements to become registered as an architect. Typically, the class includes visits to two or three architect’s offices and a nearby construction site when available. These tours include Q&A sessions with an architect in the firm.

Students in the program are also exposed to professional practice issues raised by guest jurors from industry during design critiques in the design studios.

BSD 482 is a 3 credit 16-week course covering all aspects of “professional practice” including ethics, regulatory context, and an overview of the business processes utilized in architecture firms.

The following courses are specified in the PC/SC Matrix for assessment of this criteria:

**“Introduction to Architecture”** (ACH 101)
Overview of the architectural field. Three weekly lecture presentations followed by four weekly visits to architectural and construction related businesses and one alumni presentation.
**Assessment used as primary evidence:** three graded exercises, four graded tours, one quiz, and a final exam.
**Benchmark:** “75% of the students will earn 75% or higher.”

**“Professional Practice”** (BSD 482)
Advanced study of the professional aspects of running an architecture firm. Includes the responsibilities of the architect, client, and builder as well as ethical standards of behavior. This course will not be offered until the spring of 2027. Assessments are expected to include projects, reports, and exams.
**Assessment used as primary evidence:** Projects, reports, and exams.
**Benchmark:** "75% of the students will earn 75% or higher"

**SC.3 Regulatory Context**—How the program ensures that students understand the fundamental principles of life safety, land use, and current laws and regulations that apply to buildings and sites in the United States, and the evaluative process architects use to comply with those laws and regulations as part of a project.

**Program Response:**

The following courses in our B. Arch. program include some content which helps to ensure that our students understand “the fundamental principles of life safety, land use, and current laws and regulations that apply to buildings and sites in the United States”:

“Building Materials I” (ACH 119) – address codes as they relate to the various materials.
“Building Materials II” (ACH 129) – address codes as they relate to the various materials.
“Construction Documents-Residential” (ACH 139) – includes an RSO to “apply pertinent residential codes and design requirements”.

"Construction Documents-Commercial" (ACH 239) - includes RSO to "plan and create a set of commercial construction documents that includes a site plan, foundation plan, floor plans, framing plans, building sections, wall sections, elevations, details, specifications, and schedules utilizing object-oriented CAD software". Much of this work relates to the application of regulatory requirements.
"Structural Principles" (ACH 243) – includes the use of the currently required ICC International Residential Code in Pennsylvania.
"Architectural Design Studio II" (ACH 261) - covers laws and regulations related to the design of site drainage, parking lots, handicapped ramps, and zoning.
"Computers & Estimating" (ACH 264) – covers how construction specifications and building codes impact the process of construction estimating.
"Architectural Design Studio III" (ACH 281) – typically includes design projects which address aspects of the building codes.
"Architectural Design Studio IV" (BSD 332) – typically includes design projects which address code related issues such as egress, fire safety and accessibility.
"Detailing & Applications" (BSD 340) – focuses on creation of detailing to meet code requirements and a high level of building performance.
"Architectural Design Studio VI" (BSD 432) – includes RSO to "synthesize the relationship between building code issues and energy efficiency".

Other upper-level studios (BSD 352, BSD 452, BSD 472, and BSD 492) include projects which address issues related to codes and regulations.

The following courses are specified in the PC/SC Matrix for assessment of this criteria:

**"Building Codes & Accessibility"** (ACH 141)
Overview of zoning and building codes, with emphasis on energy performance and applicability of meeting health, safety and welfare requirements. Lecture presentations along with a guest lecture from a code official address introductory content related to the International Building Code, International Residential Code, International Energy Conservation Code, and ICC A117.1 - Accessible and Usable Buildings and Facilities to address ADA requirements.
**Assessment used as primary evidence:** Weekly quizzes, a midterm exam and final exam.
**Benchmark:** "75% of the students will earn 75% or higher"

**"Professional Practice"** (BSD 482)
Advanced study of the professional aspects of running an architecture firm. Includes the responsibilities of the architect, client, and builder as well as ethical standards of behavior. This course will not be offered until the spring of 2027. Assessments are expected to include projects, reports, and exams.
**Assessment used as primary evidence:** Projects, reports, and exams.
**Benchmark:** "75% of the students will earn 75% or higher"

**SC.4 Technical Knowledge**—How the program ensures that students understand the established and emerging systems, technologies, and assemblies of building construction, and the methods and criteria architects use to assess those technologies against the design, economics, and performance objectives of projects.

**Program Response:**

The following required courses provide a strong background in a broad array of technical subjects during the first two years of our program:

ACH 119 – “Building Materials I”
ACH 129 – “Building Materials II”
ACH 135 – “Architectural Computer Aided Drafting”
ACH 211 – “Architectural Graphics II” (our introductory Revit course)
ACH 139 – “Construction Documents – Residential”
ACH 239 – “Construction Documents – Commercial”
ACH 240 – “Environmental Systems”
ACH 243 – “Structural Principles”
ACH 253 – “Structural Applications”
ACH 262 – “Sustainability: Building and Living Green”
ACH 264 – “Computers and Estimating”

Years three and four include additional technical courses focusing on the following subjects:

BSD 340 – “Detailing and Applications”
BSD 410 – “Historic Preservation”
BSD 420 – “Renewable Energy Technologies”
BSD 450 – “Sustainable Rating Systems”

Integration of technical knowledge into the design studio projects begins during the very first design studio and carries onward through the thesis project. As students progress in their coursework, they are expected to use appropriate software in coordination with the application and synthesis of structural systems, materiality, building performance, passive strategies, energy production, and sustainable rating systems. In “Architectural Design Studio VI” (BSD 432) and subsequent studios, students are synthesizing commercial systems in a realistic way into their projects.

The following courses are specified in the PC/SC Matrix for assessment of this criteria:

**“Construction Documents – Commercial”** (ACH 239)

This lab-based course focuses on the development of construction documents for a commercial project using Revit software. There are typically weekly assignments to develop different sheets in the sheet set. ACH 239 builds upon the skills and knowledge gathered from earlier courses including ACH 129 – “Building Materials II”, and ACH 211 “Architectural Graphics II” – the introductory Revit course.
**Assessment used as primary evidence:** The set of commercial construction documents generated by each student – including a site plan, foundation plan, floor plans, framing plans, building sections, wall sections, elevations, details, specifications, and schedules. Aggregated data will be provided for each of the assignments (drawings and specs) as well as the overall derived grade.
**Benchmark:** “75% of the students will earn 75% or higher.”

**“Structural Applications”** (ACH 253)

Principles of developing, evaluating, and applying appropriate structural systems for multi-family and commercial buildings. Including the influence of an architectural design concept on a structural system.
**Assessment used as primary evidence:** Exams and structural design problems.
**Benchmark:** "75% of the students will earn 75% or higher"

**"Computers & Estimating"** (ACH 264)

Introduction to the techniques and methods used to estimate construction costs for residential and light commercial buildings. Assessments include exams and cost estimates for residential and commercial buildings.
**Assessment used as primary evidence:** Exams and Cost Estimates.
**Benchmark:** "80% of the students will earn 75% or higher"

**"Detailing & Applications"** (BSD 340)

Focus on creating appropriate detailing to meet code and high-performance building standards. Weekly lecture and lab opportunities that build upon and address and consider various ways to communicate theoretical knowledge to create architectural details and wall sections along with building related physical mockups that address actual constructability along with continuous air, moisture barrier, air sealing, and insulation requirements.
**Assessment used as primary evidence:** Related quizzes, drawings, and physical mockup assignments.
**Benchmark:** "75% of the students will earn 75% or higher"

**"Renewable Energy Technologies"** (BSD 420)

Overview of renewable energy using sunlight, wind, tides, geothermal, biomass and biofuels. Quizzes on aspects of building performance and renewable energy systems. labs using various equipment and wiring.
**Assessment used as primary evidence:** Projects showing design of renewable energy systems for PV, solar thermal, and small wind. Projects showing evaluation of building performance.
**Benchmark:** "70% of the students will earn 70% or higher."

**SC.5 Design Synthesis**—How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating synthesis of user requirements, regulatory requirements, site conditions, and accessible design, and consideration of the measurable environmental impacts of their design decisions.

**Program Response:**

In the upper-level design studios students apply their knowledge of user requirements, regulatory requirements, site conditions, and accessible design to the development of specific projects and sites. The skills required in these efforts are introduced in various first- and second-year courses including "Building Codes & Accessibility" (ACH 141) and "Architectural Design Studio II" (ACH 261), which focuses on site design. These skills are then reinforced in subsequent design studios. For example, for several years the instructor of "Architectural Design Studio IV" (BSD 332) has utilized NCARB "Division C Building Design" exams from the 1980's and early 1990's as the basis of a significant project. These design projects impose realistic expectations based on codes and regulations related to egress, fire safety, and accessibility. Students are also introduced to the environmental impacts of buildings in the early "Building Materials" sequence (ACH 119 and ACH 129), and in our introductory sustainability course "Sustainability: Building and Living Green" (ACH 262). This knowledge is reinforced, and measurement methodologies are introduced using energy analysis software such as Sefaira beginning in the fifth semester studio (BSD 332). The use of energy analysis software to inform design decisions is standard practice in all the upper-level studios (from the fifth semester onward).

The following courses are specified in the PC/SC Matrix for assessment of this criteria:

**"Architectural Design Studio II"** (ACH 261)

Design studio focused on site design including contour modifications, parking lot layouts, accessibility related to sites, and zoning.
**Assessment used as primary evidence:** various projects and exercises.
**Benchmark:** "70% of the students will earn 70% or higher."

**"Architectural Design Studio VII"** (BSD 452)

Design studio focused on Net Zero/Sustainable design. Case/precedent studies, periodic design development critiques focusing on various aspects of the design, and periodic formal student presentations/critiques including final design jury/review.
**Assessment used as primary evidence:** project poster, comprehensive project booklet, and grading rubrics for various phases of development for one or two course projects.
**Benchmark:** "75% of the students will earn 70% or higher."

**SC.6 Building Integration**—How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating integration of building envelope systems and assemblies, structural systems, environmental control systems, life safety systems, and the measurable outcomes of building performance.

**Program Response:**

Our students are introduced to foundational information related to envelope systems in the two "Building Materials" courses ACH 119 and ACH 129. This information is then reinforced and augmented in several courses including the two construction documents courses (ACH 139 and ACH 239), the various design studio courses, and the "Detailing & Applications" course (BSD 340) which emphasizes energy efficient envelope assemblies.

ACH 243 covers basic "Structural Principles" used in the design of buildings. "Structural Applications" (ACH 253) includes 3 hours per week in a lab setting, focusing on utilizing and applying the basic principles to various design scenarios. These skills are developed further and integrated into studio projects in all subsequent design studios.

The program has two courses focused on environmental control systems – "Environmental Systems" (ACH 240) and "Renewable Energy Technologies" (BSD 420). These two courses equip our students with the ability to address environmental controls in their design studio projects. The BSD 332 design studio has a passive design focus which covers the approach to mechanical systems in a typical "Passive House" project.

Life safety systems are introduced in A "Building Codes and Accessibility" (ACH 141). Students are then asked to apply these concepts in subsequent design studio projects.

Energy modeling is incorporated into design studio projects beginning in "Architectural Design Studio IV" (BSD 332). In recent years students have worked with several energy analysis programs in the upper-level studios including WUFI Plus, Sefaira, DesignBuilder, BeOpt, and others. The LEED rating system for evaluating the sustainability and energy efficiency of buildings is explored in depth in "Sustainable Rating Systems" (BSD 450). All students in this course are required to take the LEED Green Associate Exam. "Architectural Design Studio VI" (BSD 432) addresses larger scale commercial environmental control systems and approaches.

The following courses are specified in the PC/SC Matrix for assessment of this criteria:

**"Environmental Systems"** (ACH 240)

Theory and design of plumbing, heating, air conditioning, lighting, and electrical service systems for buildings. Course assessments include … three exams, five projects, and a final exam.
**Assessment used as primary evidence:** Final exam.
**Benchmark:** "75% of the students will earn 75% or higher."

**"Architectural Thesis Studio II"** (BSD 492)

Design studio focused on comprehensive design solutions. Case/precedent studies, periodic design development critiques focusing on various aspects of the design, and periodic formal student presentations/critiques including final design jury/review.
**Assessment used as primary evidence:** Thesis project poster, comprehensive thesis project booklet, and grading rubrics for various phases of development.
**Benchmark:** "75% of the students will earn 70% or higher."

# 4—Curricular Framework

This condition addresses the institution's regional accreditation and the program's degree nomenclature, credit-hour and curricular requirements, and the process used to evaluate student preparatory work.

## 4.1 Institutional Accreditation

The APR must include a copy of the most recent letter from the regional accrediting commission/agency regarding the institution's term of accreditation.

**Program Response:**

A copy of the Middle States Statement of Accreditation Status (SAS) can be found on the web at: https://www.msche.org/institution/0581/

## 4.2 Professional Degrees and Curriculum

The NAAB accredits professional degree programs with the following titles: the Bachelor of Architecture (B. Arch.), the Master of Architecture (M. Arch.), and the Doctor of Architecture (D. Arch.). The curricular requirements for awarding these degrees must include professional studies, general studies, and optional studies.

4.2.1 Professional Studies. Courses with architectural content required of all students in the NAAB-accredited program are the core of a professional degree program that leads to licensure. Knowledge from these courses is used to satisfy Condition 3—Program and Student Criteria. The degree program has the flexibility to add additional professional studies courses to address its mission or institutional context. In its documentation, the program must clearly indicate which professional courses are required for all students.

*Programs must include a link to the documentation that contains professional courses are required for all students.*

**Program Response:**

The main page for the B. Arch. degree includes a "VIEW GOALS & COURSE LIST" link which shows all courses taken during the ten semesters of the five-year curriculum. The chart below lists all courses that are required of every student enrolled in this program. The total number of credits for these required architecture department courses is 108.

| Course Designation | Course Name | Credits |
|---|---|---|
| ACH 101 | Introduction to Architecture | 1 |
| ACH 111 | Architectural Graphics | 3 |
| ACH 112 | Architectural History | 3 |
| ACH 119 | Building Materials I | 3 |
| ACH 135 | Architectural Computer-Aided Drafting | 3 |
| ACH 129 | Building Materials II | 3 |
| ACH 139 | Construction Documents - Residential | 3 |
| ACH 141 | Building Codes & Accessibility | 2 |
| ACH 181 | Architectural Design Studio I | 3 |
| ACH 211 | Architectural Graphics II | 3 |
| ACH 239 | Construction Documents - Commercial | 3 |

| | | |
|---|---|---|
| ACH 243 | Structural Principles | 3 |
| ACH 261 | Architectural Design Studio II | 3 |
| ACH 262 | Sustainability: Building & Living Green | 3 |
| ACH 264 | Computers & Estimating | 3 |
| ACH 240 | Environmental Systems | 3 |
| ACH 253 | Structural Applications | 3 |
| ACH 281 | Architectural Design Studio III | 4 |
| BSD 332 | Architectural Design Studio IV | 5 |
| BSD 340 | Detailing & Applications | 3 |
| BSD 410 | Historic Preservation | 3 |
| ACH 272 | History of Modern Architecture | 3 |
| BSD 322 | Sustainable Community Planning & Design | 3 |
| BSD 352 | Architectural Design Studio V | 5 |
| BSD 420 | Renewable Energy Technologies | 3 |
| BSD 432 | Architectural Design Studio VI | 5 |
| BSD 442 | Architectural Theory | 3 |
| BSD 450 | Sustainable Rating Systems | 3 |
| BSD 452 | Architectural Design Studio VII | 5 |
| BSD 472 | Architectural Thesis Studio I | 6 |
| BSD 482 | Professional Practice | 3 |
| BSD 492 | Architectural Thesis Studio II | 6 |
| | | 108 |

4.2.2 General Studies. An important component of architecture education, general studies provide basic knowledge and methodologies of the humanities, fine arts, mathematics, natural sciences, and social sciences. Programs must document how students earning an accredited degree achieve a broad, interdisciplinary understanding of human knowledge.

In most cases, the general studies requirement can be satisfied by the general education program of an institution's baccalaureate degree. Graduate programs must describe and document the criteria and process used to evaluate applicants' prior academic experience relative to this requirement. Programs accepting transfers from other institutions must document the criteria and process used to ensure that the general education requirement was covered at another institution.

*Programs must state the minimum number of credits for general education required by their institution and the minimum number of credits for general education required by their institutional regional accreditor.*

**Program Response:**

The following chart outlines the general studies requirements for all bachelor's degrees at PCT. The chart specifies a range of 43 to 45 credits. Since the ARC program specifies 6 credits of math, the total for our program is 43 credits. This approach fulfills the general education requirement of the Middle States Commission on Higher Education (MSCHE). MSCHE doesn't state a minimum number of credits, but rather specifies the categories that must be addressed (see MSCHE Standard III, #5). The process for evaluating the transfer of general studies courses is outlined in Section 4.3.1 below.

Note that the College allows for overlap between major specific or “professional studies” courses and certain “general studies” courses. For example, ACH 112 “Architectural History” can be taken by Architecture Department students and by those outside of our department to fulfill the College’s 3 credit Arts Perspective requirement. Similarly, ACH 272 “History of Modern Architecture” can be used by any bachelor’s degree student to fulfill the 3 credit Historical Perspective requirement. For B. Arch. students, ACH 272, which is a required course, fulfills the Historical Perspective requirement. Both ACH 112 and ACH 272 have been evaluated by the curriculum committee to ensure that they meet the requirements for Arts and Historical perspective courses.

A combination of three Architecture Department courses have been approved by the curriculum committee as being equivalent to the 3 credit CSC124 “Information, Technology & Society”. To establish this equivalency, competencies from CSC124 were added to the RSO’s for these three courses.

The following charts depict the College's bachelor’s degree general studies requirements. The B. Arch. program implementation of these requirements can be found in the right column of this chart.

| Bachelor Deg. General Studies | Credits | Requirement | B. Arch. Implementation |
|---|---|---|---|
| Foundations | 18-20 | | |
| Communication | 9 | ENL111, ENL121 or ENL201, and SPC elective | ENL111 "English Composition I", ENL121 "English Composition II" or ENL201 "Technical & Professional Communication", and SPC Speech elective |
| Quantitative Thinking | 6-8 | MTH designator (course(s) determined by major from Catalog) | MTH181 "College Algebra & Trigonometry I" plus MTH172 "Geometry" or MTH183 "College Algebra & Trigonometry II" (for a total of 6 credits) |
| Technological Literacy | 3 | CSC124 (or major designated equivalent) | In the fall of 2020, the curriculum committee approved the equivalency between three ACH courses and CSC124 "Information, Technology & Society". Competencies related to the content of CSC124 have been added to these courses. The three courses are ACH 111 "Architectural Graphics", ACH 135 "Architectural Computer Aided Drafting", and ACH 264 "Computers and Estimating". This equivalency was approved for the fall 2020 versions of the AX and ASD programs, and for the fall 2022 versions of the AX, ASD, and ARC programs. |
| Critical & Ethical Thinking | | introduced in “First Year Experience” (FYE101) and other Foundation courses | |
| Collaboration | | introduced in FYE101 and other Foundation courses | |

| Bachelor Degree General Studies | Credits | Requirement | B. Arch. Implementation |
|---|---|---|---|
| Perspectives | 19 | | |
| Arts | 3 | | Students in a bachelor's degree must take one course which is designated as an ARP Core Arts Perspective course. ARC students are required to take ACH 112 "Architectural History" which is designated as ARP, and which fulfills this perspective requirement. |
| Global & Cultural Diversity | 3 | | Both GLB 270 and GLB 271 are included among the several courses that ARC students can take to fulfill this requirement (including courses from outside of the Architecture Department). These two courses can also be taken to fulfill the 3 credit ARC elective requirement. Note however that one of these 3 credit courses will not fulfill both the ARC elective and the Global & Cultural Diversity elective simultaneously. If GLB 270 or GLB 271 is specified as fulfilling the ARC elective, then another 3-credit course must be taken to fulfill the Global and Cultural Diversity Perspective. |
| Historical | 3 | | Students in a bachelor's degree must take one course which is designated as an HIP Core Historical Perspective course. ARC students are required to take ACH 272 "History of Modern Architecture" which is designated as HIP, and which fulfills this perspective requirement. |
| Natural Sciences | 7 | incudes a 4-credit course with a lab | In the 4th semester, ARC students take either PHS103 "Physics Survey" (3 credits) or PHS114 "Physics with Technological Applications" (4 credits). In the ninth semester, ARC students take a 3 credit SCI elective or a 4 credit SCL elective (depending on whether they took a 3 or 4 credit physics course in the 4th semester). Students must take a total of 7 credits of Natural Science courses. |
| Social Science | 3 | | Students in a bachelor's degree must take one 3 credit Social Science course. |
| Exploration Electives | 6 | (From approved list) | Students select courses from the list of approved Exploration Electives (Foundations, Perspectives, or current COR electives), or in the case of accreditation/certification requirements or program standards, these 6 credits may be prescribed by the program from the list of approved Exploration Electives. |
| | | | |
| Total Credits | 43-45 | | |

| Related Areas: 10-13 Credits | Credits | Requirement62 | B. Arch. Implementation |
|---|---|---|---|
| First Year Experience | 1 | FYE101 | FYE101 "First Year Experience" |
| Writing Enriched (WRT) | 0-3 | | Students must take a course which is designated as "Writing Enriched". The required course, ACH 262 is one of many with this designation, and it fulfills this requirement for students in the ARC program. |
| Open Electives | 6 | | Students select courses at the 100-level and above, or in the case of accreditation/certification requirements, these 6 credits may be used to limit the maximum number of credits. |
| Senior Project | 3 | | Students in bachelor's degree programs must take a "Senior Project" type course. BSD 492 fulfills this requirement. |

4.2.3 Optional Studies. All professional degree programs must provide sufficient flexibility in the curriculum to allow students to develop additional expertise, either by taking additional courses offered in other academic units or departments, or by taking courses offered within the department offering the accredited program but outside the required professional studies curriculum. These courses may be configured in a variety of curricular structures, including elective offerings, concentrations, certificate programs, and minors.

*The program must describe what options they provide to students to pursue optional studies both within and outside of the Department of Architecture.*

**Program Response:**

| Course Designation | Course Name | Credits |
|---|---|---|
| Exploration Electives | Students can choose from a long list of designated "Exploration Electives". | 6 |
| Open Electives | Students select courses at the 100-level and above, or in the case of accreditation/certification requirements, these 6 credits may be used to limit the maximum number of credits. | 6 |
| ARC Elective | ACH 258 "Computer Modeling & Animation" or CAD247 "CAD Management & Customization" or GLB 270 "Global Cities: European Sustainable Building, Historical Architecture, and Art" or GLB 271 "Global Cities: Architecture Ideals, Urban Forms, and Artistic Aspirations". | 3 |
| | | 15 |

The Core Education requirements for the Bachelor of Architecture degree includes six credits of Exploration Electives. Students fulfill this requirement by selecting courses from the approved list of Exploration Electives. This list contains all the courses that are approved as Foundation or Perspective courses along with any courses that were already included in the COR-Liberal Arts elective category. Exploration Electives provide students with an opportunity to further explore topics or disciplines that they were exposed to through their coursework in the Foundations and Perspectives. Ideally, these are electives that students fulfill with courses of their own choosing. Students could use their Exploration Electives to fulfill Immersion sequences if they chose to do so. Immersions are well-thought-out

sequences of interdisciplinary Foundation and/or Perspective courses that allow students to follow a particular interest through Core Education. Students use their Exploration electives (6 credits) from an approved list of courses of Foundations and Perspectives to fulfill Immersion sequences. An Immersion encourages students to see how general education courses are inter-related and to be more deliberate with their course selections. Immersions also encourage faculty from different disciplines to collaborate to develop and offer sequences of courses that interrelate. The first Immersion sequence focused on Diversity and Inclusion was approved by the Curriculum Committee in the spring of 2022. The Architecture Department is exploring the possibility of creating a sustainability related "Immersion sequence" in collaboration with other departments and programs at the College.

Students in the ARC program can take the BSD 400 "Internship" course as an OPEN Elective. This "Internship" course is intended for upper-level students who have completed some of the third-year sustainability related courses. It requires BSD 352, the sixth semester design studio as a prerequisite.

NAAB-accredited professional degree programs have the exclusive right to use the B. Arch., M. Arch., and/or D. Arch. titles, which are recognized by the public as accredited degrees and therefore may not be used by non-accredited programs.

*Programs must list all degree programs, if any, offered in the same administrative unit as the accredited architecture degree program, especially pre-professional degrees in architecture and post-professional degrees.*

Program Response:

The main College website includes a "Program Finder" option which has links to the main web pages for all programs offered by the College. On the "Program Finder" page, users can view only the programs offered by the School of Engineering Technologies by placing a check in the associated box under the "School" heading. Listed among the many bachelor's degrees, associate degrees, and certificates are the following pre-professional architecture degrees:

"Architecture" (Associate of Applied Science - A.A.S.):

"Architecture and Sustainable Design" (Bachelor of Science – B.S):

The "Program Finder" page also includes the link to the "Bachelor of Architecture" (B. Arch.) degree. The B. Arch. web page can also be accessed via this shortcut.

The number of credit hours for each degree is outlined below. All accredited programs must conform to minimum credit-hour requirements established by the institution's regional accreditor. Programs must provide accredited degree titles, including separate tracks.

4.2.4 Bachelor of Architecture. The B. Arch. degree consists of a minimum of 150 semester credit hours, or the quarter-hour equivalent, in academic coursework in general studies, professional studies, and optional studies, all of which are delivered or accounted for (either by transfer or articulation) by the institution that will grant the degree. Programs must document the required professional studies courses (course numbers, titles, and credits), the elective professional studies courses (course numbers, titles, and credits), the required number of credits for general studies and for optional studies, and the total number of credits for the degree.

**Program Response:**

The curriculum layout for the ARC (B. Arch.) degree with a total of 152 credits is shown below.

| First Semester | | Credits | M / | S | Second Semester | | Credits |
|---|---|---|---|---|---|---|---|
| FYE101 | First Year Experience | 1 | S | M | ACH129 | Building Materials II | 3 |
| ACH101 | Introduction to Architecture | 1 | M | M | ACH139 | Construction Documents – Residential | 3 |
| ACH111 | Architectural Graphics | 3 | M | M | ACH141 | Building Codes and Accessibility | 2 |
| ACH112 | Architectural History | 3 | M | M | ACH181 | Architectural Design Studio I | 3 |
| ACH119 | Building Materials I | 3 | M | M | ACH211 | Architectural Graphics II | 3 |
| ACH135 | Architectural Computer Aided Drafting | 3 | M | S | ENL 111 | English Composition I | 3 |
| MTH181 | College Algebra & Trig I | 3 | S | | | | |
| | TOTAL CREDITS | 17 | | | | TOTAL CREDITS | 17 |

| Third Semester | | Credits | M / | S | Fourth Semester | | Credits |
|---|---|---|---|---|---|---|---|
| ACH239 | Construction Documents - Commercial | 3 | M | M | ACH240 | Environmental Systems | 3 |
| ACH243 | Structural Principles | 3 | M | M | ACH253 | Structural Applications | 3 |
| ACH261 | Architectural Design Studio II | 3 | M | M | ACH281 | Architectural Design Studio III | 4 |
| ACH262 | Sustainability: Building and Living Green (WRT) | 3 | M | M | ARC | Specified Architecture Elective | 3 |
| ACH264 | Computers and Estimating | 3 | M | S | PHS 103 | Physics Survey | 3 |
| SPC | Speech Elective | 3 | S | | or | | |
| | | | | S | PHS 114 | Physics with Technological Applications | 4 |
| | TOTAL CREDITS | 18 | | | | TOTAL CREDITS | 16/17 |

| Fifth Semester | | Credits | M / S | | Sixth Semester | | Credits |
|---|---|---|---|---|---|---|---|
| BSD332 | Architectural Design Studio IV | 5 | M | M | ACH272 | History of Modern Architecture | 3 |
| BSD340 | Detailing and Applications | 3 | M | M | BSD 322 | Sustainable Community Planning & Design | 3 |
| BSD410 | Historic Preservation | 3 | M | M | BSD 352 | Architectural Design Studio V | 5 |
| ENL121 | English Composition II | 3 | S | S | MTH 172 | Introduction to Geometry | 3 |
| or | | | | | or | | |
| ENL201 | Technical & Professional Communications | 3 | S | S | MTH 183 | College Algebra & Trig II | 3 |
| | | | | S | CDP | Global & Cultural Diversity | 3 |
| | TOTAL CREDITS | 14 | | | | TOTAL CREDITS | 17 |

| Seventh Semester | | Credits | M / S | | Eighth Semester | | Credits |
|---|---|---|---|---|---|---|---|
| BSD420 | Renewable Energy Technologies | 3 | M | M | BSD 450 | Sustainable Rating Systems | 3 |
| BSD432 | Architectural Design Studio VI | 5 | M | M | BSD 452 | Architectural Design Studio VII | 5 |
| BSD442 | Architectural Theory | 3 | M | S | OEA | Open Elective | 3 |
| SSP | Social Science Elective | 3 | S | S | OEE | Exploration Elective | 3 |
| | TOTAL CREDITS | 14 | | | | TOTAL CREDITS | 14 |

| Ninth Semester | | Credits | M / S | | Tenth Semester | | Credits |
|---|---|---|---|---|---|---|---|
| BSD472 | Architectural Thesis Studio I | 6 | M | M | BSD482 | Professional Practice | 3 |
| OEA | Open Elective | 3 | S | M | BSD492 | Architectural Thesis Studio II | 6 |
| SCI | Science Elective | 3 | S | S | OEE | Exploration Elective | 3 |
| or | | | | | | | |
| SCL | Science Elective with Lab | 4 | S | | | | |
| | TOTAL CREDITS | 12/13 | | | | TOTAL CREDITS | 12 |
| | | | | | | TOTAL For ARC (B. Arch.) | 152/153 |

4.2.5 Master of Architecture. The M. Arch. degree consists of a minimum of 168 semester credit hours, or the quarter-hour equivalent, of combined undergraduate coursework and a minimum of 30 semester credits of graduate coursework. Programs must document the required professional studies classes (course numbers, titles, and credits), the elective professional studies classes (course numbers, titles, and credits), the required number of credits for general studies and for optional studies, and the total number of credits for both the undergraduate and graduate degrees.

**Program Response:**

Not Applicable. PCT does not offer a Master of Architecture degree.

4.2.6 Doctor of Architecture. The D. Arch. degree consists of a minimum of 210 credits, or the quarter-hour equivalent, of combined undergraduate and graduate coursework. The D. Arch. requires a minimum of 90 graduate-level semester credit hours, or the graduate-level 135 quarter-hour equivalent, in academic coursework in professional studies and optional studies. Programs must document, for both undergraduate and graduate degrees, the required professional studies classes (course numbers, titles, and credits), the elective professional studies classes (course numbers, titles, and credits), the required number of credits for general studies and for optional studies, and the total number of credits for the degree.

**Program Response:**

Not Applicable. PCT does not offer a Doctor of Architecture degree.

## 4.3 Evaluation of Preparatory Education

The NAAB recognizes that students transferring to an undergraduate accredited program or entering a graduate accredited program come from different types of programs and have different needs, aptitudes, and knowledge bases. In this condition, a program must demonstrate that it utilizes a thorough and equitable process to evaluate incoming students and that it documents the accreditation criteria it expects students to have met in their education experiences in non-accredited programs.

4.3.1 A program must document its process for evaluating a student's prior academic coursework related to satisfying NAAB accreditation criteria when it admits a student to the professional degree program.

*See also Condition 6.5*

**Program Response:**

Individual coursework presented for transfer is reviewed by the department head and/or the subject-matter faculty. General education coursework is reviewed by the faculty in the respective discipline. Technical coursework is reviewed by the department that oversees the

particular coursework. If coursework has not been previously reviewed, the student presenting credit for transfer must present a syllabi or course abstract. If the course is rejected for transfer by the faculty, the student may appeal the decision to the academic school dean who makes the final determination regarding course equivalencies. If the course is accepted for transfer, the reviewing department notifies the Registrar's Office of the acceptance of the credit and identifies the course equivalency. The Registrar's Office documents date of review and unless instructed otherwise, loads the equivalency into the College's database. The department head and/or faculty reviewing coursework are charged with ensuring that the NAAB requirements for courses are met.

4.3.2 In the event a program relies on the preparatory education experience to ensure that admitted students have met certain accreditation criteria, the program must demonstrate it has established standards for ensuring these accreditation criteria are met and for determining whether any gaps exist.

**Program Response:**

The College has a web page devoted to "Transfer Students" and has established policies and procedures related to Transferring Credits (P4.34 and PR4.34). Additional information can be found on the "Transferring Credits" page related to "Transfer Course Equivalency".

The Advanced and Alternate Credit web page includes information related to the various types of advanced and alternate credit (Competency Assessment, Credit by Exam, Credit for Work/Life Experience, and Advanced Placement). The complete policies (listed below) can be made available during the upcoming virtual site visit.

P4.41 Advanced Credit
PR4.41.01 Advanced Credit: Competency Assessment
PR4.41.02 Advanced Credit: Credit by Exam
PR4.41.03 Advanced Credit: Credit for Work/Life Experience
PR4.41.04 Advanced Credit: Advanced Placement (AP)/International Baccalaureate (IB)/ College Level Examination Program (CLEP)

The main ARC web page includes the following "Alternative Credit" information:

> Alternative Credit refers to academic credits earned through means other than traditional college course completion, including credit by exam, articulation, proof of competency gained in high school, work/life experience, and advanced placement.

4.3.3 A program must demonstrate that it has clearly articulated the evaluation of baccalaureate-degree or associate-degree content in the admissions process, and that a candidate understands the evaluation process and its implications for the length of a professional degree program before accepting an offer of admission.

**Program Response:**

The main B. Arch. (ARC) program web page includes a section titled "Transfer Procedures" (near the bottom of the page). This section includes the following text and a link to the "Transfer Students" page, which includes several additional links related to the process of transferring credits and the implications of doing so.

> In addition to the transfer standards established by the College, students seeking transfer credit from another institution for architecture program courses may be asked to submit examples of coursework to the Architecture Department head. Determination by the department head as to whether transfer credit is given will be based on alignment of the transfer course with Penn College course content and established NAAB Program and Student Criteria.

# 5—Resources

## 5.1 Structure and Governance

The program must describe the administrative and governance processes that provide for organizational continuity, clarity, and fairness and allow for improvement and change.

5.1.1 Administrative Structure: Describe the administrative structure and identify key personnel in the program and school, college, and institution.

**Program Response:**

The Governance System, as an integral part of Pennsylvania College of Technology, provides a mechanism for input into shared planning, decision-making, and evaluation through elected and appointed representatives of faculty, staff, and students.

The governance structure of the College is as follows:

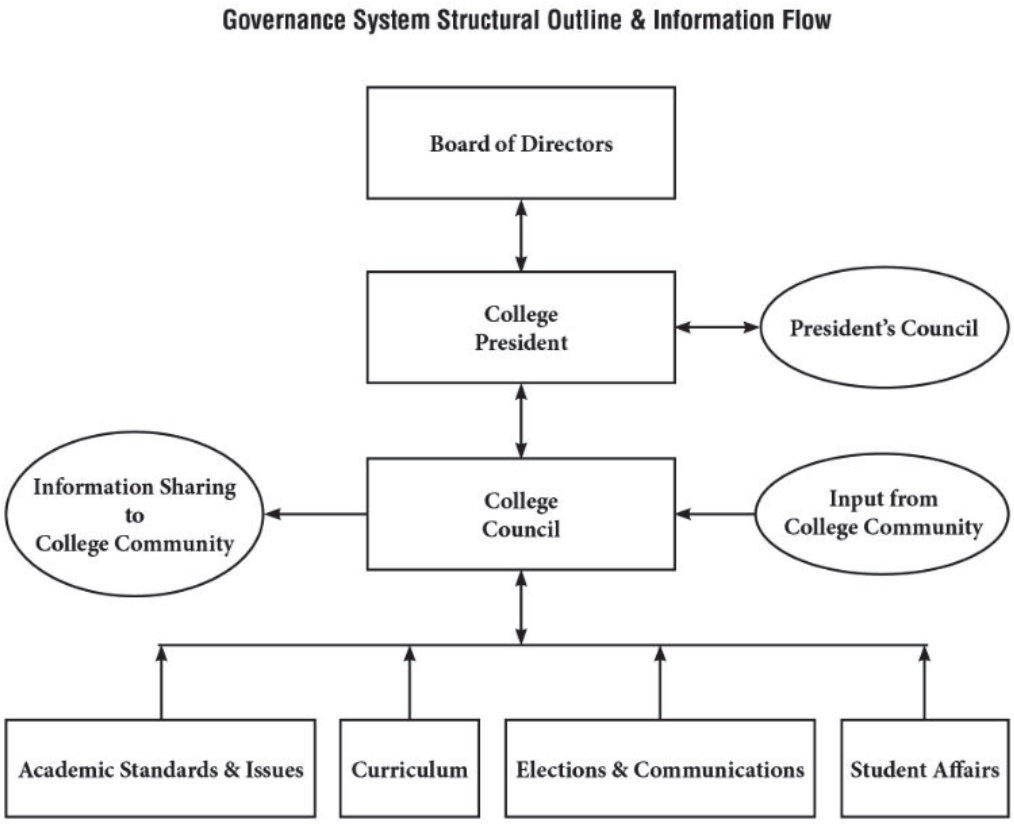



*Fig. 5.1.1 Penn College Governance System Structural Outline*

Structural Protocol:

- Standing committees investigate and analyze issues related to specific committee responsibilities and recommend action to the College Council.
- The College Council receives and acts on reports, proposals, and recommendations from the four standing committees and the College community. College Council also may request feedback and/or approval from the College President.

- The College President may request feedback and/or approval from President's Council.
- The College President may inform the College's Board of Directors of action taken or may request their input into various matters currently before the committees.

In order to achieve certain operational and financial advantages, the College's academic school structure was transformed on July 1, 2020, from six academic schools to three. These three schools are Nursing & Health Sciences, Engineering Technologies, and Business, Arts & Sciences. Each school is led by a dean and is divided into a number of divisions, each of which are led by an assistant dean. The Architecture Department is housed within the Construction and Architectural Technologies Division in the School of Engineering Technologies.

Following is a list of the key personnel in the program, division, school, and college:

| | |
|---|---|
| Geoff Campbell | Department Head – Architecture |
| Ellyn Lester: | Assistant Dean – Constr. & Architectural Technologies Division |
| Dr. Brad Webb: | Dean – Engineering Technologies |
| Joanna Flynn: | Dean of Curriculum and Instruction |
| Dr. Neslihan Alp: | Vice President for Academic Affairs and Provost (as of 8/1/2022) |
| Dr. Mike Reed: | President of Pennsylvania College of Technology (as of 7/1/2022) |

5.1.2 Governance: Describe the role of faculty, staff, and students in both program and institutional governance structures and how these structures relate to the governance structures of the academic unit and the institution.

**Program Response:**

College Governance committees make up Penn College's in-house Governance system. They are comprised of interested faculty, staff and students who help make decisions that directly affect life at Penn College. The five Governance committees, which have faculty, staff, and student representation, are Academic Standards and Issues, Curriculum, Student Affairs, College Council, and Elections & Communications.

Any Pennsylvania College of Technology *student* who is in good standing (i.e., is not on academic probation and does not have an outstanding judicial record) can apply to serve on a College Governance committee as a *Student-at-Large*. SGA representatives serve on College Governance committees as fully participating members. Responsibilities of a Students-at Large are to attend monthly meetings, participate in discussions, and vote on issues before the committee. Additionally, students participate on campus judicial boards in matters involving alleged infractions of the Student Code of Conduct. In recent years, students from the Architecture Department have served in SGA in various roles including SGA President (in 2019).

Department heads at Penn College are appointed by the assistant dean of their school's division. Their primary responsibilities relate to generating schedules of courses each semester and to developing a budget for the department. They typically also take leadership roles in working with the faculty to conduct periodic program reviews and curriculum updates, but have no authority over the faculty. Faculty report to the assistant dean of their division. In our case, the architecture faculty report to Ellyn Lester – Assistant Dean of Construction and Architectural Technologies, in the school of Engineering Technologies. Any faculty who have concerns related to the department should address them with the assistant dean.

Students who have issues with a specific faculty member or course should first address them with that faculty member. If the issue remains unresolved, the assistant dean should be consulted. Similarly, matters which are not course related should be addressed to the assistant dean. In all matters, the assistant dean reports directly to the dean of Engineering Technologies and, in turn, to the provost, who oversees all academic issues.

In addition to each school's dean, within Academic Affairs the dean of curriculum & instruction oversees curriculum issues and all curriculum updates. Likewise, the dean of enrollment & academic operations leads the budget process, oversees facilities, and manages the master equipment list. Administration and faculty work together to build consensus and produce an inviting and effective environment for constituents, especially students.

## 5.2 Planning and Assessment

The program must demonstrate that it has a planning process for continuous improvement that identifies:

5.2.1 The program's multiyear strategic objectives, including the requirement to meet the NAAB Conditions, as part of the larger institutional strategic planning and assessment efforts.

Penn College is deeply committed to providing educational experiences that support student learning and growth and prepare graduates for successful careers. The College's mission involves preparing the next generation of industry leaders—with real-world experience and an innovative spirit. Our courses and programs are directly in line with that mission and the strategic plan. The missions of each of the three academic schools focus on creating educational experiences that prepare students for industry. Faculty and staff provide students with skills, knowledge, and support that will make a difference throughout their time at the College and on the job. The administrative team ensures that the components of the academic system work together effectively and that each student experiences both the challenges and rewards of a superior applied technology education.

Penn College's culture of continuous improvement includes the systematic assessment of educational learning goals. Educational learning goals are clearly defined at the course, program, and institutional levels. These multi-level goals are building blocks that collectively support the College's mission. Institutional-level goals are the general education goals, referred to as the Core Education Foundation goals. Program and Core Education goals are listed in the *College Catalog* and website. Required student outcomes (RSOs) are tied to program goals. Meaningful program goals are defined through the curriculum development process and are based on academic discipline standards, as well as input from accreditors and advisory committees. The Curriculum Committee reviews course and program proposals for quality and rigor. Proposals for new certificate/degree majors must demonstrate connections to the College's mission and vision as well as specific strategic goals or initiatives that the major supports or advances.

Detailed information on the complete Penn College Assessment Plan and Process is available via the College portal (a login is required and will be made available on request).

The Penn College 2022-2026 Strategic Plan includes specific goals and initiatives. Progress toward the strategic goals established in the previous plan (2018-2022) are outlined in the Strategic Plan Update.

The Architecture Department has a multi-year strategic plan in alignment with the College's strategic plan. The current 2022-2026 Architecture Department goals are as follows:

1. Make progress toward meeting the 2020 NAAB Conditions of Accreditation for the department's B. Arch. (ARC) degree.

2. Obtain additional Architecture Department dedicated space.
3. Expand our Advisory Committee.
4. Obtain a 3D Scanner.
5. Develop a department policy on equity/inclusion and respect for diversity (DEI).
6. Establish and implement a Learning and Teaching Culture (LTC) Policy.
7. Establish a Mission Statement for the department.
8. Explore the possibility of adding Architecture micro-credentials or "badges" in the areas of BIM, Sustainability, and others to serve the AEC industry and community.
9. Explore the possibility of developing a campus-wide “Immersion” sequence of elective courses focused on sustainability in conjunction with other programs/departments.
10. Continue with our recent marketing efforts.
11. Establish a plan to maintain or increase the diversity of the Architecture Department faculty, staff, and student body by Nov. 1, 2023.

5.2.2 Key performance indicators used by the unit and the institution.

**Program Response:**

In a similar fashion to the use of “Success Indicators” in the College’s strategic plan (shown in the “Strategic-Plan-Updates”), the Architecture Department has established the following “Success Indicators” for each of the numbered goals in the department strategic plan:

1. Establish NAAB “eligibility” and “candidacy” status by the summer of 2024.
2. Increase the Architecture Department’s dedicated space by 50% by 2025.
3. Grow the membership of the Advisory Board to 9 members (from the current number of six) by 2025.
4. Success is indicated by the purchase of the scanner by 2026.
5. Success is indicated by developing the DEI policy by the beginning of the fall 2023 semester.
6. Success is indicated by developing and implementing the LTC policy by the beginning of the fall 2023 semester.
7. Develop an Architecture Department Mission Statement by the beginning of the fall 2023 semester.
8. The College recently added a strategic goal related to “badging” and micro-credentials. The department will determine whether to pursue “badging” during the fall 2022 semester and if so, will implement any chosen badges by the fall of 2024 (assuming that this timeline corresponds with the timeline of the College). There are currently no badges that have yet been developed at the College.
9. The College recently approved the concept of Immersion areas in which students can take elective courses in areas of study across various programs and departments. The Architecture Department will determine whether to pursue an Immersion related to sustainability during the fall 2022 semester and if so, will work with others to implement the Immersion by the fall of 2024.
10. Continue with the established marketing efforts each year including emails and mailings to the internally developed mailing list.
11. Success is indicated by developing and adopting the plan to maintain or increase the diversity of the Architecture Department faculty, staff, and student body by Nov. 1, 2023.

5.2.3 How well the program is progressing toward its mission and stated multiyear objectives.

Program Response:

As of April 2023, progress has been made on the following strategic plan goals:

Goal 1

The B. Arch. program was approved, and the first cohort enrolled in the fall of 2022. Last summer we applied for eligibility and were accepted by the NAAB as eligible for candidacy on December 16, 2022. We will submit the APR for initial candidacy (IC) in early May 2023. There will be an IC virtual visit in the fall of 2023 and a determination on IC will be made during the first months of 2024.

Goal 2

Planning is under way for the Architecture Department to relocate to the fourth floor of the ACC Building. The current expectation is that the majority of the Architecture Department courses will take place in the ACC building beginning during the fall of 2024.

Goal 3

The advisory board has grown recently from 6 to 8 members. We will continue our efforts to expand the board further.

Goal 4

Formal requests for a 3D scanner have been accepted and submitted to the Dean of Academic Operations. This item is ranked as a high priority by the School of Engineering Technologies.

Goal 5

Prior to the development of an Equity/Inclusion and Respect for Diversity Policy, the College hired a special assistant to the president who is charged with assisting the schools, divisions and departments with their diversity related efforts. Our policy document was developed by the architecture faculty and is nearing completion. We expect to have it reviewed by a representative group of students and our advisory committee by the end of the spring 2023 semester. We intend to implement it beginning in the fall of 2023.

Goal 6

The Learning and Teaching Culture policy was recently completed and will be implemented at the beginning of the fall 2023 semester.

Goal 7

The Architecture Department Mission Statement was finalized during the fall of 2022 and reads as follows:

“The Architecture Department at Penn College provides a combined theoretical and hands-on education in building fundamentals, technology, sustainability, and design. We are committed to shaping a healthy future and a more equitable society through the built environment.”

Goal 8

As of mid-April 2023, the College has yet to implement any badges. This goal will be put on hold until the “badging” concept is developed further. Note that there will be a presentation to the dean’s council in May of 2023 regarding the possibility of adopting Credly for badging.

Goal 9

Immersion areas are those that can be fulfilled via general elective course options. An immersion in sustainability would appear to be one which could have appeal across many different programs. Our introductory sustainability course is not currently a core or general elective course. As a first step toward the immersion possibility, the department will look into establishing ACH262 “Sustainability: Building and Living Green” as a specified general elective.

Goal 10

A new poster was developed in the fall of 2022 and was distributed, along with other materials, to our current mailing list. In addition to the physical mailing effort, we also contacted high school and CTC instructors via an email marketing campaign.

Goal 11

Development of a plan to maintain or increase the diversity of the faculty, staff, and student body will occur during the fall 2023 semester.

5.2.4 Strengths, challenges, and opportunities faced by the program as it strives to continuously improve learning outcomes and opportunities.

**Program Response:**

Following is the department SWOT Analysis. This analysis is reviewed periodically by our Advisory Committee.

## Architecture Department SWOT Analysis

Strengths

- Strong faculty with diverse backgrounds
- Associate degree was accredited by the Association of Technology, Management, and Applied Engineering (ATMAE) in 2015 but we have since dropped it
- Hands-on learning with current software and equipment
- Strong active student organizations in the Architecture Club at Penn College (ACPC) and Women in Construction Clubs
- Good faculty to student ratio (1 faculty member per 17 students)
- The Bachelor of Architecture degree provides many benefits for our students
- Penn College Dual Enrollment program where high school students learn AutoCAD at three regional schools
- Students have 24/7 access to the design studios.
- The current architecture gallery space helps to spread the word about our programs
- Our department is very good at staying current with new technologies
- Our programs prepare students for multiple types of graduate programs and multiple career opportunities
- Architecture summer camp helps to promote department programs
- Robust global experience courses have the largest cohort numbers in the College
- The Makerspace provides improved access to tools and equipment for students
- Recent enrollment trends are positive for our department
- Marketing efforts in the department have been effective

Weaknesses

- The cost of higher education is prohibitive to some.

- We need to continue to emphasize the design process in the design studios.
    - Design students can become overly reliant on the computer to the point where it is detrimental to a free-flowing, uninhibited process of continual design refinement. The faculty need to continue to help the students to understand that some design tasks can be explored more effectively via hand drawing/sketching and physical modeling.
- Facilities related –
    - There is a need for a materials lab/gallery in which students could view and assemble mock-ups of architectural details. The Architecture Department would be willing to share such a space with the Construction Management and Building Construction departments.
    - Computer systems could be upgraded more frequently. Note however, that beginning in the fall of 2023, new enrollees in our programs will be required to purchase their own laptops.
    - We currently lack sufficient studio tables and space to permit dedicated workstations for our students. Plans are in place to rectify this with the addition of space when the department moves to another building on campus (effective fall 2024).
    - The new gallery spaces in the proposed new location for our department will not get the foot traffic from others outside of our program that we are currently getting in our current location.

Opportunities

- Virtual Reality is a growing trend which will have a significant impact in the field of architecture and in architectural education.
- The current national focus on sustainability, “green buildings” and energy efficiency can provide opportunities for our programs (in terms of both generating additional interest, and in helping to provide jobs for graduates).
- Current industry demand for our graduates is strong.
- Our B. Arch. program is unique among the five other NAAB accredited B. Arch. programs in Pennsylvania.

Threats

- Competition from other schools and from online education could affect our enrollments.
- Trends in demographics are having a negative impact on enrollment.
- Workers in the field of architecture suffer when the economy is bad. If there is a recession in the coming years, it could seriously impact our enrollment.
- Some media reports in recent years have painted a negative image of architectural degrees. This is especially true in the years following a downturn in the economy when many architecture graduates can have difficulty finding jobs.

5.2.5 Ongoing outside input from others, including practitioners.

**Program Response:**

The Architecture Advisory Committee meets twice each year. Last year the Advisory Committee provided support and input regarding the proposed B. Arch. curriculum and the potential NAAB accreditation. The board has very recently grown from six to eight representatives from industry – five local architects, a construction manager for a healthcare company, an educator, and an executive from a furniture manufacturing company. One of

our current goals is to expand the advisory board further, and to improve the diversity of the board while doing so.

The Career Fairs at PCT have provided informal feedback from regional architecture firms. One firm last year said they started coming to our recruiting events when they realized that our graduates were able to be productive sooner than the graduates from other "private universities". Our graduates have extensive experience with industry software tools, such as Revit, which make them competitive candidates for industry positions.

The Graduate Survey Report explores educational and career outcomes and satisfaction with student services and program instruction. Until the end of 2010-11 academic year, this was an annual survey commencing five months after the close of the spring semester. Beginning summer 2011, graduates are now surveyed term-by-term continuously, six months after the conclusion of their graduating semester.

In the past, the Architecture Department has conducted surveys of regional architecture firms to help guide changes to the curriculum. As an example of this, the department queried firms to determine which CAD and/or BIM programs were being utilized. That survey determined that while the trend is towards BIM (with Revit the leading BIM software employed), there were still a significant number of firms using CAD (and specifically AutoCAD). For this reason, we still teach both AutoCAD and Revit in our program, in addition to 3D modeling software such as Rhino and Sketchup.

The program must also demonstrate that it regularly uses the results of self-assessments to advise and encourage changes and adjustments that promote student and faculty success.

**Program Response:**

As a result of our 2018 Architecture Department Program Review, the department made six specific recommendations. In each case we were successful in achieving the desired result.

**Goal #1: The department should develop more distance education options.**

Since 2018, the department has offered the following courses in an online or hybrid format:

**ACH 262 "Sustainability: Building & Living Green"** – offered online 4 out of 5 past years.

**BSD 450 "Sustainable Rating Systems"** – offered online since 2018.

**GLB 270 & GLB 271** our two "Global Experiences" courses have been offered in a hybrid format for several years now. Students do online work in the spring semester and take a two-week trip to Europe in May.

**ACH 211 "Architectural Graphics II"** (our introductory Revit course) – offered online in Spring 2023.

**Goal #2: Simplify the organization of our various program offerings.**

Based on input from the administration, the faculty and our Advisory Committee, the organization of our programs was significantly simplified. The former 2+2 approach for the bachelor's degree was abandoned. The new simplified curriculum was offered beginning in the fall of 2020. It took two years to resolve the new program structure. Due to this extended development time, and to our desire to offer all the revised four-year program courses at least once before generating another "program review", the administration agreed to delay the next Architecture Department program review until the 2024-2025 school year.

**Goal #3: Change the name of the four-year program to "Architecture and Sustainable Design".**

We had lobbied to change the name of our four-year degree previously, but it wasn't until our 2018 program review that we were successful in this endeavor. At that point, the name of the four-year program was changed from "Building Science and Sustainable Design" to "Architecture and Sustainable Design".

**Goal #4: Increase support for Virtual Reality (VR).**

We received upgraded computers with high-end graphics cards capable of handling VR software in the fall of 2018. These systems are scheduled for an upgrade soon. Since 2018, we have established licensing relationships with Lumion and Twinmotion to enable our students to utilize these real-time VR platforms. Students use these programs for rendering photo realistic images and animated short movies of their projects.

**Goal #5: Improve marketing efforts to alumni, high schools, and community colleges.**

Marketing was listed as a weakness on our SWOT analysis. Since that time, the department has taken it upon themselves to market our programs. The faculty developed a list of 750 names of counselors and architecture related instructors at Career Technology Centers (CTCs) and high schools in the region. The CTCs typically provide technology-related courses (including architecture and CAD) to several high schools in their area. Emails and physical mailings, including posters of our programs, have been sent out to this list. In the fall of 2020, due to the impact of COVID-19, enrollment in first semester architecture program courses fell to a total of 21. This was the lowest it had been in 25 years. Due partly to our increased marketing efforts, the total for fall 2021 was 37, and was 49 for the fall of 2022. The administration of the College has acknowledged that our marketing efforts have been effective. In our current SWOT analysis, marketing has switched from a weakness to a strength.

**Goal #6: Develop stronger relationships with schools that offer an M. Arch. degree for our four-year program students who wish to earn an M. Arch.**

For the past several years we have had presentations for our students by the M. Arch. programs at PSU and the University of Maryland. As a result, several of our four-year degree graduates have attended these schools. We have also established or are currently working on articulation agreements with Rochester Institute of Technology and Thomas Jefferson University.

The new B. Arch. program is only one year old. As such, we haven't yet needed to make changes to the individual courses or to the curriculum. The following items, taken from a recent annual course assessment summary report for the Architecture Department, depict actions taken as a result of assessments conducted in the classroom.

Employed new or improved technologies.
- Altered choice of software utilized for specific tasks.

Improved scheduling of classroom activities
- Devoted more time to topics which needed reinforcement.

Improved existing materials/resources to support the course.
- Researched new / up-to-date textbook choices.
- Put assignments, lectures, quizzes, and support resources on P.L.A.T.O. (our web-based learning platform) for ease of access in lieu of physical documents.

Developed new materials/resources/instructional methods to support the course.
- Provided practice exams.
- Provided review sessions.
- Developed new assessment tools.
- Added course field trips.
- Arranged for visits with industry experts (in the classroom or off-site)

Modified Course Abstracts
- Planned to make changes to Required Student Outcomes (RSOs) in fall 2023.

Following is a more detailed example:

A recent assessment in one of the third-year studios highlighted a deficiency in our students' understanding of the use of column grids in floor plans. Several students were using column grids incorrectly. Further review revealed that they didn't have sufficient exposure to the use of column grids in the "Construction Documents – Commercial" course (ACH 239). The Required Student Outcomes (RSOs) for this second-year course didn't explicitly address column grids. Because of this, the buildings used in ACH 239 didn't always incorporate steel columns and structural grids. Plans are under way to alter the RSOs for this course to require that steel frame construction and column grids be used in the chosen commercial project(s). A revised course abstract will be submitted to the curriculum committee during the fall 2023 semester. Meanwhile, the faculty teaching ACH 239 were made aware of this issue and are addressing it.

## 5.3 Curricular Development

The program must demonstrate a well-reasoned process for assessing its curriculum and making adjustments *based on the outcome* of the assessment.

*Programs must also identify the frequency for assessing all or part of its curriculum.*

**Program Response:**

As is required by the Penn College Assessment Plan and Process, assessment efforts conducted by each department on campus include the following:

- Each program department at Penn College must conduct a "program review" once every five years. The "Program Assessment" portion of the program review addresses questions such as:
  - Are we achieving our stated goals?
  - How have we improved the program based on previous assessments?
  - Have we used the assessment process to improve student learning?

  The Architecture Department is scheduled for its next program review during the 2024/2025 school year. Our most recent review was the 2018 Architecture Department Program Review. The next review was delayed so that all courses in the latest iteration of the four-year ASD program (which was offered in the fall of 2020) would be taught at least once before developing the next program review.
- Courses in all programs and each RSO in each course must be assessed at least once every five years. Courses which have been altered due to assessment results are typically assessed more than once in a five-year period. A follow-up assessment is typically conducted in the year following any changes in content or delivery. The College provides the "Assessing Required Student Outcomes Template" for this purpose.
- To ensure that overall program goals are addressed in an adequate fashion, individual program goals are mapped to specific courses in which they are to be assessed (in the ARC Curriculum Map). Assessments from the "Assessing Required Student Outcomes" reports for the individual courses can be used as evidence that the program is addressing the program goals. These assessments occur at least once every five years and are reported in the "program review" document.

- A department assessment review writeup must be submitted to the department's administrative "school" at the end of each academic year to summarize the results of all individual course assessments conducted during the year.
- Each department meets with their advisory committee at least once per year. The Architecture Department Advisory Committee reviews and makes recommendations regarding the status of the department programs and curricula. Our recent Spring 2023 Advisory Committee meeting included a review of our strategic plan and our newly developed policies related to "Learning and Teaching Culture" and "Diversity, Equity and Inclusion". The committee also conducted an in-depth review of two first-year courses (ACH 101 and ACH 141) which will be used as primary evidence in support of our NAAB accreditation.
- The Graduate Survey Report explores educational and career outcomes and satisfaction with student services and program instruction. Graduates are surveyed six months after the conclusion of their graduating semester. The B. Arch. program began last fall and so has no graduates to survey yet.

The following is an outline of the assessment related aspects of the program review.

- Previous Program Review
  - What recommendations were made in the previous Program Review and what actions have been taken on these recommendations?
  - Provide evidence and analysis of performance since last review.

- Course-Level Assessment
  - Demonstrate how the Required Student Outcomes (RSO's) for every major course have been assessed at least once in the past five years.
  - Include an *Assessing Required Student Outcomes – Course Level* template for each course.
  - Justify why a major course was not assessed, if applicable.
  - Analyze and explain how assessment results have been disseminated and describe course or programmatic changes that have been made based on the data.

- Assessment of Core Foundations (General Education)
  - Indicate which of the core foundations were assessed during the last five years as part of the College's assessment cycle.
  - Include the curriculum mapping of foundations to major courses. What courses are mapped to the goals?
  - How did your program's outcomes compare with the school and institutional-level outcomes? Describe performance outcomes and level of growth in foundational skill between 100/200 level and 300/400 level courses.
  - Explain how assessment results have been disseminated and describe programmatic changes that have been made based on the data.

- Program-Level Assessment
  - Complete the program goal assessment template. List all program goals.
  - Identify the measurements, both direct and indirect, that are used to assess the program outcomes (such as senior project, standardized test results, portfolios, and licensure exam results).
  - Include the curriculum mapping of program goals to major courses. Explore what is taught and how. Consider exposure of gaps in the curriculum.
  - Explain how assessment results have been disseminated and describe programmatic changes that have been made based on the data.

5.3.1 The relationship between course assessment and curricular development, including NAAB program and student criteria.

**Program Response:**

The goals established for the ARC B. Arch. program are built upon and include the goals of our two-year Associate of Applied Science in Architecture degree. Both sets of goals are shown below. Each specific goal is followed by a general category (such as "Building Systems" or "Professional Practice") and the specific NAAB program and student criteria to which it relates (thus providing a mapping between program goals and NAAB criteria).

**Associate of Applied Science in Architecture Program Goals**

A graduate of this major should be able to:

A1) demonstrate technical expertise and problem-solving ability through the use of effective data analysis, appropriate tools and digital media, and standard mathematical computations (Critical Thinking). (PC.5, SC.3, SC.4)
A2) interpret architectural drawings and related documents and communicate ideas and solutions using appropriate architectural vocabulary (Critical Thinking). (PC.2, SC.4)
A3) describe the stages of the architectural design process, and the phases of a typical building project (Design). (PC.2, SC.2)
A4) develop design solutions for small and medium-sized projects which demonstrate a knowledge of architectural history, building materials, and building systems (Design). (PC.2, PC.4, SC.4, SC.5)
A5) present architectural designs and concepts using various means, as appropriate (Representation). (PC.2, SC.5)
A6) analyze the aesthetic, economic, and environmental impacts of various building materials, building systems, and methods of construction (Building Systems). (PC.2, SC.4, SC.6)
A7) demonstrate an understanding of the choices that promote occupant health and well-being (Sustainability). (PC.3, SC.1)
A8) integrate the various applications of construction materials, systems, and methods used in the building industry (Integration). (SC.6)
A9) describe the career options and job titles of those who work within architecture and related disciplines, the importance of working in teams, and the relationships between the various stakeholders (Professional Practice). (PC.1, PC.6, SC.2)

**Bachelor of Architecture Program Goals**

In addition to meeting the goals established for the Architecture associate degree, a graduate of this major should be able to:

B1) demonstrate critical thinking, professional communication, and enhanced research skills in solving architectural problems, including the ability to interpret and develop architectural documents, and to locate, evaluate, and use needed information effectively (Critical Thinking). (PC.5, PC.6, SC.4)
B2) make distinctions between the stages of the architectural design process, the phases of a typical building project, and apply concepts of architectural history, theory, research methodologies, sustainability, and building technology to solve complex design problems (Design). (PC.2, PC.4, PC.5, SC.3, SC.4)
B3) master two- and three-dimensional representation techniques to express intentions at the various stages of a project (Representation). (PC.2)

B4) demonstrate an advanced understanding of various building systems and technologies related to building materials, structures, environmental controls, methods of construction, and sustainability, to solve architectural problems and support a healthy environment (Building Systems). (PC.2, SC.4, SC.5, SC.6)
B5) make sustainable decisions for buildings and communities based on assessments of energy usage, resource efficiency, and lifestyle choices that address industry sustainability standards and promote occupant health and well-being (Sustainability). (PC.2, PC.3, PC.8, SC.1, SC.5)
B6) produce innovative and comprehensive architectural solutions which integrate various aspects of theory, structural design, aesthetics, building materials, building systems, construction practices, and sustainability (Integration). (PC.2, PC.5, SC.5, SC.6)
B7) demonstrate familiarity with the legal, ethical, financial, and social responsibilities of the various stakeholders who work within architecture and related disciplines (Professional Practice). (PC.1, PC.6, PC.7, PC.8, SC.2, SC.3)

**The Bachelor of Architecture ARC Curriculum Map**

The program goals are mapped to the specific courses in which they are assessed as part of the "program review" conducted once every five years. The ARC curriculum map is a five-page document which maps all 16 program goals to various courses spanning across the five-year degree. As shown in the list of goals above, each goal in the map is linked with one or more of the 8 NAAB Program Criteria (PC) and/or 6 Student Criteria (SC). Our intention in establishing this link between the existing ARC program goals and the NAAB criteria is to integrate NAAB assessment results with the College's internal assessment processes.

| In addition to meeting the goals established for the Architecture associate degree, a graduate of this major should be able to: | BSD420 | BSD432 | BSD450 | BSD442 | BSD452 | BSD472 | BSD482 | BSD492 |
|---|---|---|---|---|---|---|---|---|
| Semester | 7 | 7 | 8 | 7 | 8 | 9 | 10 | 10 |
| **Program Goal #1 (PC5, PC6, SC4)** **demonstrate critical thinking, professional communication, and enhanced research skills in solving architectural problems, including the ability to interpret and develop architectural documents, and to locate, evaluate and use needed information effectively (Critical Thinking).** | D PC 5 SC 4 | R SC 4 | R | R | R | **RX** PC 5 | R | R PC2 SC4 |
| **Program Goal #2 (PC2, PC4, PC5, SC3, SC4)** **make distinctions between the stages of the architectural design process, the phases of a typical building project, and apply concepts of architectural history, theory, research methodologies, sustainability, and building technology to solve complex design problems (Design).** | D SC 4 | D | | R PC 4 | **RX** PC 2 PC 5 | R | R SC3 | **RX** PC2 PC5 SC4 |
| **Program Goal #3 (PC2)** **master two and three-dimensional representation techniques to express intentions at the various stages of a project (Representation).** | R | **DX** PC 2 | | | **RX** PC 2 | R | | R PC2 |
| **Program Goal #4 (PC2, SC4, SC5, SC6)** **demonstrate an advanced understanding of various building systems and technologies related to building materials, structures, environmental controls, methods of construction, and sustainability, to solve architectural problems and support a healthy environment (Building Systems).** | **D X** SC 4 | D SC 5 | R | R | R PC2 SC5 | R | | **RX** PC2 SC5 SC6 |

*Abbreviated example from the ARC Curriculum Map*

Courses shown in the ARC Curriculum Map are designated I, D, or R, which stands for "Introducing", "Developing", or "Reinforcing. An "X" and the tan colored highlight designates that the course has been chosen for assessment of the stated program goal and the specified NAAB criteria.

Every course must be assessed at least once every five years. As part of this course level assessment, the program develops an "Assessing Program Coherence" chart for the individual courses being assessed. This chart maps the "Required Student Outcomes" (RSOs) for that specific course to the program goals and to the NAAB criteria that each RSO addresses. The Following example of an "Assessing Program Coherence" chart for the "Introduction to Architecture" course (ACH 101) is used to illustrate this process in more detail. In this example, RSO #1 addresses program goals A9 and B7. RSO #1 also addresses NAAB PC.1 and SC.2. As a first semester course, the topics addressed in this course are being "Introduced", rather than "Developed" or "Reinforced". This chart adds another level of assessment and helps to ensure coherence between individual course RSOs and the various NAAB criteria.

## Assessing Program Coherence

## Connecting Major Courses to Program Goals and NAAB Program and Student Criteria

Course Title/#: "Introduction to Architecture" / ACH 101

| | Course Required Student Outcomes: | Program Goals Addressed | **NAAB PC** Addressed | **NAAB SC** Addressed | Introduced | Developed | Reinforced |
|---|---|---|---|---|---|---|---|
| 1 | identify the major groups of people involved in producing buildings | A9, B7 | 1 | 2 | X | | |
| 2 | identify what work is performed by an architect. | A3, B2, B7 | 2 | 2 | X | | |
| 3 | identify the educational and work experience required to become a registered architect | A9, B7 | 1 | 2 | X | | |
| 4 | discuss the various career opportunities open to graduates. | A9, B7 | 1 | 2 | X | | |
| 5 | describe the development of a job through an architect's office. | A3, B2, B7 | 2 | 2 | X | | |

*Assessing Program Coherence Chart for ACH 101 "Introduction to Architecture"*

An "Assessing Required Student Outcomes" report is generated at least once every five years for each major course. This document relates the assessment methods, benchmarks, a review of previous assessment results, an analysis of the current results, and a plan for next steps. Examples of Assessing RSO writeups for specific courses will be made available during the next virtual site visit, as will a recent Architecture Department Annual Assessment Report. An example assessment related chart taken from the ACH 101 writeup can be found at the top of the following page.

| Required Student Outcome – Course Level | Assessment Method(s)* When multiple methods are used for an RSO, results for each method must be reported separately in the Results column. | | Expected Level of Achievement (ELA) *(Benchmark)* | Previous Cycle Results AY__2019__ | Results AY __2022__ |
|---|---|---|---|---|---|
| 1. **identify the major groups of people involved in producing buildings** | Direct | Final Exam- Q 3 and Q 28 | 75% will score 75% or higher | N = 14<br>14 out of 14 (or 100%) scored 75% or better | N=45<br>Q 3- 45 of 45 (100%) scored 75% or better<br>Q 28- 40 of 45 (88.9%) scored 75% or better<br>Overall- 85/90 (94.4%) |
| | Indirect | Field trips to a local construction site and an architect's office | | | |
| 2. **identify what work is performed by an architect** | Direct | Final Exam- Q 13 and Q 22 | 75% will score 75% or higher | N = 14<br>11 out of 14 (or 79%) scored 75% or better | N=45<br>Q 13- 45 of 45 (100%) scored 75% or better<br>Q 22- 44 of 45 (97.8%) scored 75% or better<br>Overall- 89/90 (98.9%) |
| | Indirect | Field trip to an architect's office | | | |
| 3. **identify the educational and work experience required to become a registered architect** | Direct | Final Exam- Q 6 and Q 12 | 75% will score 75% or higher | N = 14<br>11 out of 14 (or 78%) scored 75% or better | N=45<br>Q 6- 44 of 45 (97.8%) scored 75% or better<br>Q 12- 43 of 45 (95.6%) scored 75% or better<br>Overall- 87/90 (96.7%) |
| | Indirect | | | | |
| 4. **discuss the various career opportunities open to graduates** | Direct | Final Exam- Q 2 and Q 5 | 75% will score 75% or higher | N = 14<br>14 out of 14 (or 100%) scored 75% or better | N=45<br>Q 2- 40 of 45 88.9%) scored 75% or better<br>Q 5- 45 of 45 (100%) scored 75% or better<br>Overall- 85/90 (94.4%) |
| | Indirect | Field trips to a local construction site and an architect's office | | | |
| 5. **describe the development of a job through an architect's office** | Direct | Final Exam- Q 18 and Q 21 | 75% will score 75% or higher | N = 14<br>13 out of 14 (or 93%) scored 75% or better | N=45<br>Q 18- 33 of 45 (73.3%) scored 75% or better<br>Q 21- 36 of 45 (80.0%) scored 75% or better<br>Overall- 69/90 (76.7%) |
| | Indirect | Field trip to an architect's office | | | |

*Example assessment chart from the ACH 101 Assessing Required Student Outcomes Report.*

A typical "Assessing Required Student Outcomes" writeup includes an analysis of the assessment results and a description of how the results will be used for continuous improvement. An example from the fall 2022 writeup for ACH 101 is shown below.

> 'ACH 101 "Introduction to Architecture" is an eight-week course which consists of three lectures and five trips or tours to construction sites and architects' offices or guests to campus. There is a homework assignment for each of the three lectures. The intent of the homework assignments is to reinforce the lecture as well as to prepare the student for the final exam. All homework exercises, as well as the final exam, utilized our P.L.A.T.O. system. There were 35 questions on the final exam. While each exam question was related to at least one of the course's RSO's, two questions were chosen to assess the student level of achievement for each RSO of this assessment. As faculty, we are pleased with the level of student achievement. The last RSO, "*describe the development of a job through an architect's office*" shows the weakest results. However, when combining the two selected question results together, the 75% benchmark is still attained. While it is not a required element of this assessment, it should be noted that attendance was very high over

the eight-week course (94.7%), which surely feeds into the high level of achievement experienced in the course this semester.'

The end of the "Assessing Required Student Outcomes" writeup includes sections on "Action(s) to be taken", "Analysis of budgetary implications", and a proposed schedule for when the course will next be assessed. The action specified in the ACH 101 writeup was to "Adjust instructional approach and repeat assessment in the next academic year".

5.3.2 The roles and responsibilities of the personnel and committees involved in setting curricular agendas and initiatives, including the curriculum committee, program coordinators, and department chairs or directors.

**Program Response:**

Curriculum Committee, including Registrar and Dean of Curriculum & Instruction

- Reviews/approves curriculum proposals submitted for the department by the dean.
- Ensures adherence to established curriculum-related standards.

Assistant Dean

- Works with department head to review and refine department planning efforts.
- Suggests and responds to initiatives to improve the department.
- Represents the department in discussions with upper-level administration.
- Reviews curriculum documents prior to submission to Curriculum Committee.
- Acts as a conduit through which the department communicates with upper-level administration.

Department Head

- Works with faculty and Advisory Committee to develop program goals.
- Generates Annual Assessment Report, compiled from individual course assessments, which is submitted to the assistant dean.
- Takes the lead in conducting the periodic program review.
- Uses results of course level assessments and input from faculty and Advisory Committee in the development of Curriculum changes.

Advisory Committee

- Suggests possible courses of action based on recent industry trends.
- Critiques department planning efforts and goal development.
- Reviews examples of recent student work.
- Provides "employer" feedback on graduate performance in the workplace.

Faculty

- Conducts individual course assessments.
- Proposes changes to courses and curriculum based on assessment results and research in the architectural field.
- Participates in Advisory Committee meetings to generate industry driven input on department planning and goals.
- Works with department head to establish department mission, plans and goals.

## 5.4 Human Resources and Human Resource Development

The program must demonstrate that it has appropriate and adequately funded human resources to support student learning and achievement. Human resources include full- and part-time instructional faculty, administrative leadership, and technical, administrative, and other support staff. The program must:

5.4.1 Demonstrate that it balances the workloads of all faculty in a way that promotes student and faculty achievement.

**Program Response:**

Penn College has employed six full-time faculty members in the Architecture Department for the past 15 years. In that time, the program ranged from approximately 95 students to as many as 164. For the last two years there have been approximately 100 to 105 students enrolled in Architecture Department programs. With the addition of the new ARC program, and the new fifth year of courses, the department expects that we will need to hire at least one additional faculty member. This new hire will need to be hired sometime before the fall of 2026 (when fifth year courses are taught for the first time).

The department is currently conducting a search to hire a replacement for a current faculty member who is retiring after the fall 2023 semester. We should know by the end of the spring 2023 semester if this search is successful.

For the past ten years, the department has employed only one adjunct faculty member. This adjunct member has primarily taught the "Construction Documents – Commercial" course (ACH 239) but has occasionally covered other courses. Whenever a course is offered to an adjunct, full-time faculty can elect to teach the course instead, as long as their overall loads are not excessive, and they are well qualified to teach the course. One reason why we haven't utilized adjuncts in larger numbers is that the full-time faculty have often elected to take on the course in question as an overload. There are many prospective adjuncts in our region should the need arise to grow the adjunct pool.

The College offers many possibilities for professional development and the enhancement of a faculty member's or staff member's success. These include the following:

- generous benefit package including health insurance
- paid leave for vacations, sick days, personal days, and short-term disability
- personal leave days can be contributed to a compassion leave pool, whereby an employee with an ill spouse or relative can access a reservoir of additional paid personal days for an extended period of time
- tuition waiver/reduction for the spouse or dependents of the faculty member
- on-site professional development and wellness programs
- access to athletic facilities
- access to day-care at the College
- choice of two retirement plan options from the State Employees Retirement System (SERS) and Teachers Insurance and Annuity Association (TIAA)
- optional membership in the Pennsylvania State Education Association PSEA union

The College and the Architecture Department believe it is important to establish a balance between a faculty member's personal life and their career.

When a new faculty member is hired, they must serve a three-year probationary period. After successful completion of the third year of probation, the faculty member is considered as full-time faculty with all of the applicable rights and benefits. The College does not have a "tenure track" for faculty.

There are five different designations for faculty:

- Lecturer (temporary full-time faculty position)
- Instructor
- Assistant Professor

- Associate Professor
- Professor

These designations have no impact on benefits or salary. If a faculty member wishes to pursue a higher-level designation, they must meet certain requirements and do the associated paperwork. Upon promotion, there is a one-time stipend.

Several current faculty members have taken full advantage of the available benefits, including 100% tuition waiver at Penn College, and 75% tuition reduction at Penn State University. Four out of six current faculty have obtained an additional degree while employed in the Architecture Department. One faculty member took a one-year sabbatical for this purpose.

5.4.2 Demonstrate that it has an Architect Licensing Advisor who is actively performing the duties defined in the NCARB position description. These duties include attending the biannual NCARB Licensing Advisor Summit and/or other training opportunities to stay up to date on the requirements for licensure and ensure that students have resources to make informed decisions on their path to licensure.

**Program Response:**
Dorothy Gerring has agreed to serve as the department's Architect Licensing Advisor. She will perform the duties as described by NCARB, including attending the biennial NCARB Licensing Advisor Summit.

5.4.3 Demonstrate that faculty and staff have opportunities to pursue professional development that contributes to program improvement.

**Program Response:**

The administrative staff of the School of Engineering Technologies includes one dean, five assistant deans, and four "office assistant" personnel. Kate Wetzel is the office assistant who primarily works with Ellyn Lester, the Assistant Dean of "Construction and Architectural Technologies" and the faculty and students within. When needed, she gets additional support from Becky Steer, the office assistant to Brad Webb, the Dean of the School of Engineering Technologies. When new technologies or the demands of the job require it, office assistants are able and are encouraged to take advantage of appropriate professional development opportunities.

The annual College budget includes a contractually specified minimum amount of funds for each faculty member to pursue professional development. This amount is currently $350 per faculty member per year (but more may be awarded). In the past, this money has been pooled together if one faculty member wished to attend a multiday conference, and if others among the faculty didn't utilize their specified funds. Architecture faculty have attended USGBC, Autodesk University, and PHIUS conferences in this fashion.

Instead of using the allotted funds mentioned above, faculty can also apply for an "Upgrading/Retraining Grant" to attend a conference or other professional development opportunity. Faculty may apply for a Penn College retraining/upgrading grant, for the purpose of retraining, upgrading, or preparation to teach in another academic discipline approved by the College, to enable the employee to remain current in his or her discipline or prepare for a new or different discipline important to the College. The College allocates up to $50,000 each year for the Retraining/Upgrading Grant Fund. There is also a Strategic Initiative Fund which provides financial support for faculty and staff who forward the work of the College through presenting at regional, national, or global conferences.

5.4.4 Describe the support services available to students in the program, including but not limited to academic and personal advising, mental well-being, career guidance, internship, and job placement.

**Program Response:**

Faculty members in the Architecture Department also serve as academic advisors to students enrolled in architecture programs. An advisor is assigned to each student prior to the start of their first semester. Students are encouraged to "check-in" with their advisor throughout the semester and are required to meet their advisors to plan their course schedules for each semester.

Each Advisor is expected to:

- Communicate regularly with the advisee
- Encourage personal, intellectual, and professional development
- Support the student's short- and long-term goals
- Explain academic program requirements and course sequence
- Help the student consider the outcomes of academic choices
- Assist the student in developing an academic plan
- Promote the full use of campus offerings
- Apply College policies and procedures in relation to academic requirements
- Offer early intervention academic assistance if needed
- Make referrals to campus resources as needed

Prospective students are paired with a personal admissions counselor who will guide them through the admissions process.

Students can also get one-on-one advice, motivation, tutoring, and support in the College's Center for Academic Excellence. The Center will provide a tiered structure of intervention and support to students, regardless of where they are in their Penn College career.

Counseling Services provides short-term individual counseling to help students gain a deeper understanding of the sources of their difficulties. These insights are then translated into plans of action that the student can carry out in their daily life. Counselors also provide intervention and support designed to assist students who are experiencing academic difficulties in collaboration with the academic schools and other support services on campus to provide assistance to students.

Penn College's Career Services assists with career exploration during and after college, provides multiple networking and recruitment opportunities, and helps create marketable job candidates.

College Health Services promotes wellness through health education, prevention, early diagnosis, and treatment of illness. All currently enrolled students are eligible to be assessed in College Health Services. Medical Records are kept confidential. There is no charge to students for office visits, although a nominal fee is charged for immunizations, medications, and supplies.

The department of Disability and Access Resources is covered in detail at the end of section 5.5.5.

Various tutoring services are available to all PCT students. Note also that the College typically hires a third- or fourth-year architecture student to be the architecture tutor. This tutor typically works with first- and second-year students who need help with their courses.

Many students benefit from the individual guidance and engagement they receive from a mentor. Although a student's academic advisor can function as a mentor, students can also request that a mentor be assigned to them.

## 5.5 Social Equity, Diversity, and Inclusion

The program must demonstrate its commitment to diversity and inclusion among current and prospective faculty, staff, and students. The program must:

5.5.1 Describe how this commitment is reflected in the distribution of its human, physical, and financial resources.

**Program Response:**

Penn College strives to maintain a climate that fosters respect among all members. Through its Diversity Statement, Community Pledge, and core value of a Community of Respect, the College establishes a clear expectation for community members with regard to treatment of one another. To cultivate an environment that is respectful and inclusive, the College has a number of policies and initiatives in place that collectively demonstrate compliance with this standard. These include the values statement, which defines the College's core values; Bullying policy, which defines behaviors that constitute bullying and establishes a zero tolerance for such behaviors; and two sets of policies and procedures: Sexual Misconduct/Sexual Harassment and Harassment and/or Discrimination Based on Protected Class , which establish a commitment to an environment that is free of discrimination, harassment, and retaliation. In addition, the Student Code of Conduct establishes an expectation of courteous and respectful behavior toward all members of the campus community. All students are required to complete an online harassment and discrimination education module in their first year, and all employees must complete similar training on a 3-year cycle.

Outside of formal policies, the College uses various means to promote a respectful climate. Through the orientation process, students are introduced to the Community Pledge, which encourages students to be active bystanders. In the First Year Experience course, students discuss the value of diversity and the benefits of living in a diverse learning and social community. Timely communications, such as the President's messages relating to racial injustice, are issued in response to incidents that undermine the community of respect.

In 2020–21, the College created an inclusion taskforce and worked closely with Rankin & Associates Consulting to conduct a campus climate survey titled Our Voices Count. The results of the survey were released in fall 2021 and will inform future initiatives aimed at ensuring that all students and employees experience a respectful, inclusive campus community.

The College promotes diversity and inclusivity through a number of initiatives, resources, and work groups. Among the examples are diversity-related training opportunities such as Safe Zone Training, offered to employees and students interested in being a resource for members of the LGBTQ+ community. The Bias Education and Support Team also provides educational services and support in response to bias in the community.

To fully deliver on its commitment to diversity and inclusion, the College recognizes the need to embed these issues in academic discourse. For this reason, the Core Education model establishes a Global and Cultural Diversity (CDP) elective requirement for all bachelor's and associate of arts degrees; a CDP elective is optional for associate of applied arts and associate of applied science degrees. A Global and Cultural Diversity elective course must include content about culturally diverse groups, explore students' knowledge and perceptions, and address the impact on society.

Although this academic connection to diversity provides sound student development opportunities, the College and the Architecture Department will continue to look for ways to embed social justice, inclusion, and diversity topics across the academic curriculum. A greater level of integration could only serve to enhance the depth and breadth of existing inclusion efforts, which lay a foundation for what is expected of Penn College community members to ensure an environment in which people can learn and grow with one another.

As such, in July 2022, Nathaniel E. Woods Jr. joined the College in a newly created position: Special Assistant to the President for Inclusion Transformation. In this position he will lead the College's strategic planning efforts by engaging with the campus community to improve inclusive practices at every level. He will also work to strengthen relationships, facilitate planning efforts and discussions and implement strategies to support engagement, justice, diversity, equity and inclusion. Over the course of the next year, the Architecture Department will partner with him to improve the student experience, build affinity, and increase our inclusion efforts.

Finally, architecture faculty member Naim Jabbour was appointed for a one-year term on the LEED Diversity, Equity, and Inclusion (DEI) Working Group, with the USGBC. This group was "formed to create a framework for advancing diversity, equity, and inclusion in the built environment through LEED".

5.5.2 Describe its plan for maintaining or increasing the diversity of its faculty and staff since the last accreditation cycle, how it has implemented the plan, and what it intends to do during the next accreditation cycle. Also, compare the program's faculty and staff demographics with that of the program's students and other benchmarks the program deems relevant.

**Program Response:**

There were 105 students enrolled in the spring 2022 semester. Of these 85 (or 81%) self-identified as White, 10 (or 9.5%) as Hispanic, 6 (or 5.7%) as Black, and 4 (or 3.8%) as Multiple. This amounts to 19% non-White.

There are 29 female students. This results in a total of 27.6% female, and 72.4% male.

There are five male and one female faculty members among the full-time faculty in the Architecture Department (16.7% female). There is also one male and one female adjunct faculty (including our Assistant Dean Ellyn Lester who will be teaching the Professional Practice course for the department when this course is first offered). She also serves as a source of support to all students within the program, organizes professional presentations, and supports the department's special initiatives. When considering both full-time and adjunct faculty, the percentage of female architecture faculty (at 25%) comes close to matching the percentage of female students (27.6%). Among the full- and part-time faculty all self-identified as White.

It is clear from the data above that the percentage of non-White representation in the faculty does not occur at the level found among the student population. One of the current male faculty members is retiring in the fall of 2023. A search for a replacement is currently under

way. There have been 15 applicants for the position. 13 are male and 2 are female. 14 are White and the 15th is either White or Hispanic. It is unclear which. At the time that this is being written the two top candidates for the faculty position are female.

5.5.3 Describe its plan for maintaining or increasing the diversity of its students since the last accreditation cycle, how it has implemented the plan, and what it intends to do during the next accreditation cycle. Also, compare the program's student demographics with that of the institution and other benchmarks the program deems relevant.
Program Response:

The College places great value on maintaining a student-centered environment that honors diversity and fosters respect, as reflected in policies and procedures, student services and engagement opportunities, professional development and public forums, and campus communications. Policies, procedures, and practices exist to ensure the ethical, impartial treatment of all members of the campus community. As the College has just completed our Middle States Accreditation process this past spring (2022), we're in the process of building out the details of our strategic plan, which will include opportunities to increase the diversity of our students. Once tactics have been produced that align with the College's strategic planning goals, they will be shared with the schools, divisions, and departments. At that time, the Architecture Department will design our response to the College's tactics in conjunction with Dr. Nathaniel E. Woods Jr., who recently joined the College as the Special Assistant to the President for Inclusion Transformation.

As of fall 2021, 12.92% of the College's student population self-identified as a minority, which is lower than the Architecture Department's spring 2022 percentage: 19%. Interestingly, the Architecture Department currently has fewer self-identified female students than the College. In fall 2021, the College reported that 36.75% of the student population self-identified as female (largely bolstered by the predominantly female majors in Nursing and Health Sciences); in spring 2022, 27.6% of the students enrolled in an architecture program self-identified as female. The faculty will explore ways to rectify this situation in the coming year.

5.5.4 Document what institutional, college, or program policies are in place to further Equal Employment Opportunity/Affirmative Action (EEO/AA), as well as any other social equity, diversity, and inclusion initiatives at the program, college, or institutional level.

**Program Response:**

Penn College publishes the following "Nondiscrimination Statement" on the "People and Culture" webpage:

Pennsylvania College of Technology is committed to the concept and practice of equal opportunity for employment and achievement without discrimination because of race, color, religion, national origin, sex, gender identity or expression, disability, age, sexual orientation, political affiliation, status as a protected veteran, genetic information, or any characteristic against which discrimination is prohibited by applicable law.

The College also celebrates our diversity, and we are committed to inclusiveness. Recognizing that mutual respect for individual differences is the foundation of our learning community. Recent initiatives include the following:

- Joint recommendations ratified by the College and the SGA for the implementation of a gender-inclusive housing option beginning fall 2021.

- Student Information System (SIS) updated to allow students to indicate their preferred name, if different from their legal name, and preferred gender. Additionally, our Learning Management System allows students to specify their chosen pronoun.
- Rankin & Associates Consulting partnership to create campus climate study and develop strategic initiatives focused on creating a more inclusive and welcoming campus.
- A new institutional Land Acknowledgement Statement recognizing that Indigenous people were the original stewards of the land on which Penn College sits.
- Safe Zone Training: A "Safe Zone" is a space in which people of diverse backgrounds, especially members of the LGBTQ+ community, are welcome and included. Allies help create these spaces by being open in their support and acting as advocates. Safe Zones help to establish a campus as an inclusive educational environment where all members can learn and share new ideas. There is signage that indicates a Safe Zone

Students are also taking an active role in promoting diversity and inclusion. Recent, student created clubs include the Black Student Union, and the One World Club. More details can be found in this PCToday article.

5.5.5 Describe the resources and procedures in place to provide adaptive environments and effective strategies to support faculty, staff, and students with different physical and/or mental abilities

Program Response:

The College is dedicated to creating an inclusive environment for all of the community. Some examples of this include early move-in for students with autism spectrum disorders and the continued improvement of all teaching-learning materials being accessible to all students through universal design. There is a portal page (login required) for Accessibility of Information Technology and Media which states:

The mission of the Accessibility of Information Technology and Media committee is to promote accessible information technology to meet different user needs, preferences, and situations by encouraging the campus community to identify and employ universal design principles. Equal access and opportunity benefits and enables all people to perceive, understand, navigate, interact, and contribute independently with information technology in an effort to foster personal and professional growth, social awareness and understanding, and lifelong learning.

The Accessibility of Information & Media Committee is working to provide resources and guidance about accessibility to information for all Penn College employees. Faculty and formal presenters should be proactive in developing materials that are accessible to all individuals.

It is understood that making all materials accessible is a work-in-progress. The first step for all employees is to choose to learn about accessibility. The second step is to choose to make materials compliant when editing existing material or in developing new material. All new faculty are trained in accessibility. Professional Development sessions are regularly offered for any faculty members to attend.

There are a host of materials on the portal to assist faculty in preparing course materials as well as specific people who have been designated as accessibility facilitators. Currently the accessibility facilitator for the Architecture Department is Matthew Krepps.

Penn College Disability and Access Resources
The Disability and Access Resources Office provides a comprehensive suite of services and works with departments and academic schools to ensure an accessible and inclusive environment for students with disabilities. The office provides guidance and support for the Accessibility of Information & Media Committee, which provides training and resources on developing accessible materials. The mission statement for the Disability and Access Resources office is shown below:

The mission of Disability and Access Resources is to find creative solutions by collaborating with administrators, faculty, staff, and students to develop an accessible and inclusive environment that embraces and celebrates diversity and empowers individuals to fully participate in all College programs, activities, and services.

Disability and Access Resources is committed to fulfilling this mission by:

- Serving as an educational resource for the College and community transition initiatives.
- Facilitating equal access through reasonable and appropriate accommodations.
- Clarifying the rights and responsibilities of both the student and the College.
- Promoting campus-wide disability awareness.
- Empowering students to develop self-awareness and self-advocacy skills.

College students are able to use this department's services to document disabilities in order to facilitate reasonable accommodations, academic adjustment, and/or auxiliary aids and services. For architecture students this has included access to class recordings, a sign language interpreter, books in alternate formats, course material accommodations and testing accommodations. Faculty provide materials to students with universal design in mind, and they require students to also learn how to create such documents.

## 5.6 Physical Resources

The program must describe its physical resources and demonstrate how they safely and equitably support the program's pedagogical approach and student and faculty achievement. Physical resources include but are not limited to the following:

5.6.1 Space to support and encourage studio-based learning.

**Program Response:**

The image below shows the current LEC building spaces used by the Architecture Department, including studios (brown with red outline), classrooms (grey and purple with red outline) and offices (tan with green outline). The department has been using these classrooms for the last 25 years and will continue to do so until fall 2024 when we are scheduled to relocate to the ACC building across the street from our current location.


*Fig. 5.6.1 Existing Studios, Classrooms, and Faculty Offices in the LEC Building.*

We currently utilize two large classrooms as our design studios. These rooms in the Lifelong Education Center (LEC rooms B2015 and B2017) are shown in brown in the image above and are enlarged and rotated 180 degrees in the drawing below.

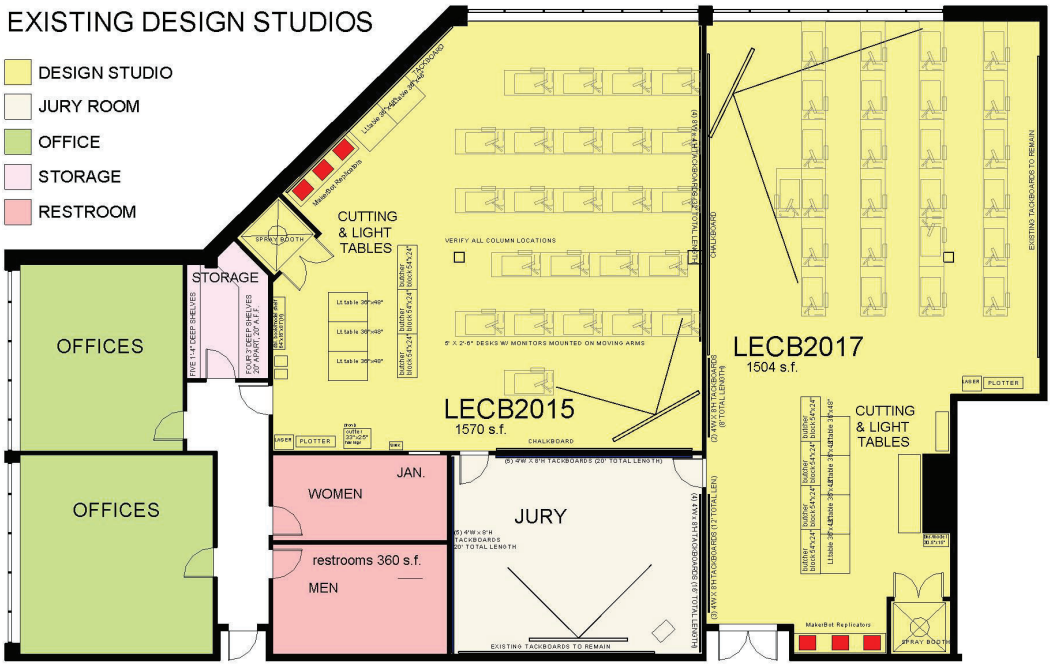



*Fig. 5.6.2 Existing Design Studios and Service Spaces in the Lifelong Education Center (LEC) Building.*

Each of the LEC B2015 and LEC B2017 studio spaces is equipped with the following:

- 24 student work tables 2.5' x 5'
- Alienware gaming computers with high end NVIDIA graphics cards
- A projection system with desk camera
- A "graphics area" for hand drawing and model making with butcher block tables and light tables
- A large format HP T1700 color plotter and a color laser printer

Additionally, the studios share the following equipment:

- A Universal Laser Systems Laser Cutter (with an associated exhaust system)
- A computer dedicated to the laser cutter
- 5 Makerbot Replicator+ 3D printers
- A large format Xerox Copier (capable of copying a large set of working drawings)
- A large format flatbed scanner
- A spray booth (with associated exhaust system)
- Binding equipment (to aid the students in creating bound documents)
- A large format guillotine style cutting table.

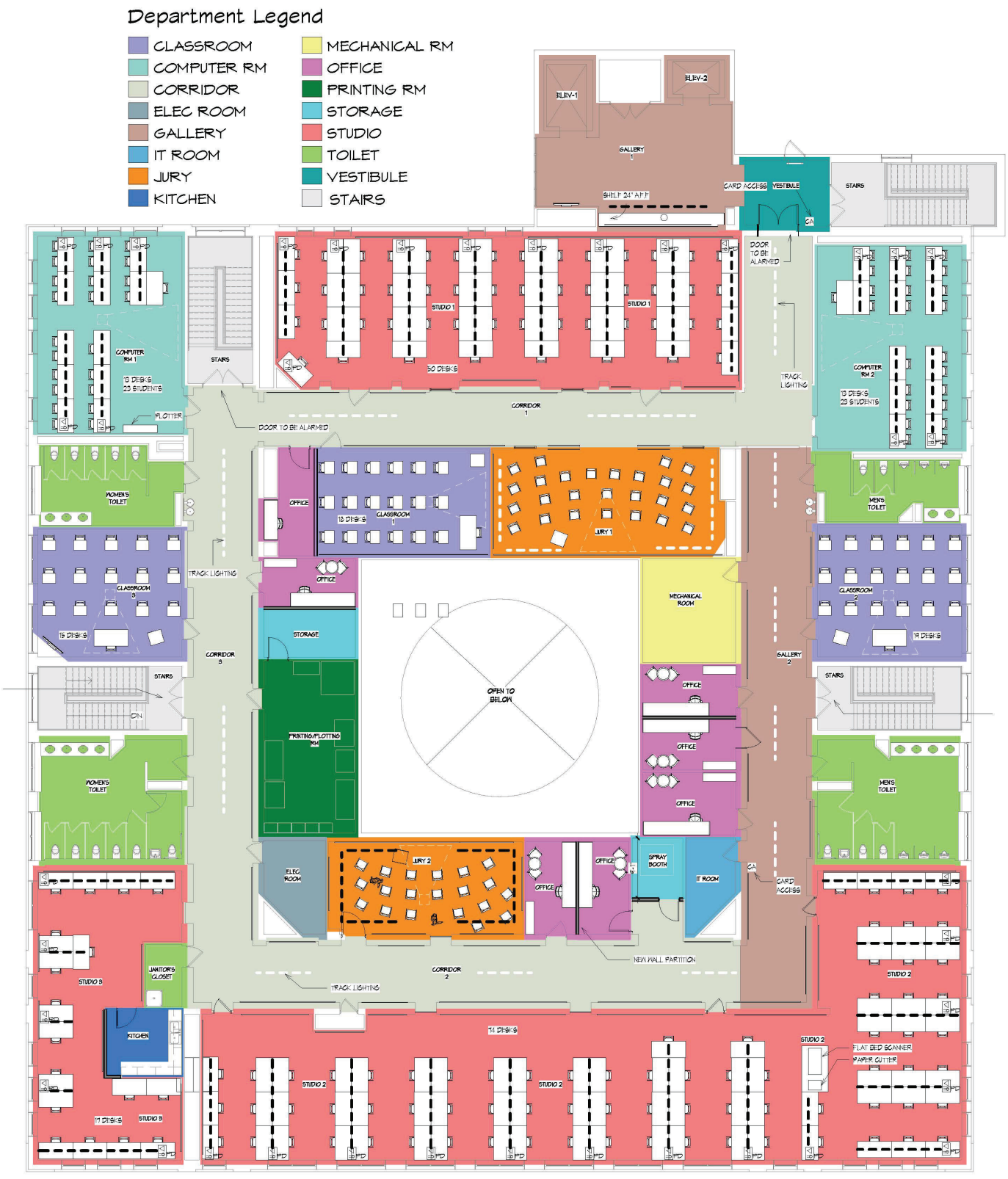
When we started the four-year architecture program in 2009, we added design studios in each of the four semesters in the third and fourth year. This increased emphasis on design and increased use of the existing studios has made it clear that we would benefit from additional design studio spaces. Ideally, we would like to have dedicated workstations for all students in our programs (from the 1st year through the 5th year).

In recent years the Architecture Department has requested additional space to accommodate this need. The administration is now supporting this request, and we are currently planning to move the Architecture Department from the LEC building to the fourth floor of the Klump Academic Center (ACC) building. The ACC 4th floor currently consists of several typical classroom spaces. There are no computers in these classrooms aside from the instructor's stations. The work involved in this move will be completed prior to the start of the fall 2024 semester. All Architecture program courses will be scheduled in the ACC building beginning in fall 2024. This move includes the following renovation related work:

- Networking of the new design studios and two computer classrooms.
- Relocation of existing department equipment including the laser cutter, five Makerbots, plotters, laser printers, etc.
- Addition of through roof exhaust system for laser cutter and spray booth.
- Addition of card swipe access systems to enable access to design studios outside of scheduled class times (evenings and weekends).

The plan shown on the next page depicts enlarged studio spaces which will require demolition of some existing walls. The total number of design studio workstations is increasing from the current 50 to 141. This new configuration increases the department's dedicated space significantly and will allow for dedicated workspaces for each student in the program.

The College is in full support of this move and has committed the necessary funding to see it through. During the 2022-2023 school year, the faculty have been meeting with the architect and the construction coordinator on campus to finalize plans for this move.




1 FOURTH FLOOR COLOR SCHEME PLAN
SCALE: 1/8" = 1'-0"

*Fig. 5.6.3 Plan of the Architecture Department Relocation to the 4th Floor of the ACC*

5.6.2 Space to support and encourage didactic and interactive learning, including lecture halls, seminar spaces, small group study rooms, labs, shops, and equipment.

**Program Response:**

In addition to the two current design studios (LEC B2015 and LEC B2017), the architecture program primarily utilizes five additional classroom spaces. These existing spaces are described below:

Existing Computer Rooms – LEC B2108, LEC B2110, LEC B2118
Each of these rooms is configured with 24 computer stations for students with one additional computer for the instructor. These classrooms are networked and run the Windows 11 operating system. Each room has a black- or white-board, a ceiling mounted projector, and a screen. These rooms are not used exclusively by the Architecture Department. They are shared with other departments in the Engineering Technologies Division.

Proposed Computer Rooms – ACC 401 and ACC 405
The capacity of these rooms will be 23 student stations in each. They will be networked with Windows 11 and will have black- or white-boards, ceiling mounted projectors and screens. These two rooms, and all others on the 4th floor of the ACC building will be dedicated to the Architecture Department (not shared with others).

Existing Classrooms – LEC B2109 and LEC B2044
"Classrooms" in this case refers to typical lecture rooms with individual student desks. There is a single computer which is placed at the instructor's station or lectern. Each classroom is equipped with a black- or white-board, a table-mounted camera, and a projector with a screen. Classroom capacity is these rooms is 23 in LEC B2109 and 30 in LEC B2044. LEC B2044 is "standard" lecture classroom. LEC B2109 is equipped with large drafting tables with parallel bars. The Construction Technologies Department still teaches a 3-credit hand drafting course for which they utilize this room. The Architecture Department faculty also use this room in the following ways:

- Building Materials examples are stored in the back of LEC B2109, and the Building Materials courses are often taught in this room.
- Students in some sections of the "Architectural Graphics" course (ACH 111) are introduced to parallel bar drafting in this space.

Proposed Classrooms – ACC 407, ACC 416 and ACC 419
These are typical lecture style classrooms with individual student desks, a black- or white-board, an instructor's lectern with a computer and table mounted camera, and a projector and screen. Capacities are as follows:

- ACC 407 - 18 Desks
- ACC 416 - 20 Desks
- ACC 419 - 20 Desks

In addition to the above listed rooms, the Architecture Department has access to the following spaces on campus:

**The DJG Auditorium**

The final jury for the Capstone Studio was held in this space last year.

*Fig. 5.6.4 The DJG Auditorium*

**The Gallery at Penn College**

For the past four years graduating architecture students have organized a gallery showing of their design work. Due to COVID-19 the show was online for only two years. Last year, however, the show returned to the Gallery which is located on the third floor of the Madigan Library. The link above has images from this show.

*Fig. 5.6.5 Architecture Capstone Studio Projects at the Gallery at Penn College*

**Penn's Inn at Bush Campus Center**

Juries and presentations of various types have been held in this large space. Last year a representative from the M. Arch. program at Penn State University gave a presentation to architecture program students in this space.

*Fig. 5.6.6 Penn's Inn at the Bush Campus Center*

**The Dr. Welch Workshop**

A makerspace where students can collaborate with other students, faculty, and staff, or work independently to test theories, explore ideas, and gain real-world skills. The makerspace encourages learning outside the classroom and provides state-of-the-art equipment, tools, and raw materials to support that innovation.

*Fig. 5.6.7 the Dr. Welch Workshop – A Makerspace at Penn College*

**Equipment at the Dr. Welch Workshop**

**High Tech Fabrication**

- 2 MakerBot Replicator 3D printers
- 3 Artillery Sidewinder X1 3D printers
- Arduino and Raspberry Pi breadboarding
- Bernina 530 sewing machine
- Bernina L460 overlocker/serger
- BOSS laser cutter/engraver with attachments
- Brother embroidery machine
- Brother heavy duty overlocker/serger
- Camcorder and wireless microphone system
- Glowforge Plus laser cutter/engraver/printer
- Heavy duty sewing machine
- MakerGear 3D printer
- Roland CAMM-1 GS-24 vinyl cutter
- Shapeoko XXL CNC router
- Sense Generation 2 3D scanner
- TecBoss 3D Pen
- Theta V 360 camera

Tools and Equipment

- 12" Laminator
- Air plasma cutter
- Backlit drawing table and drawing supplies
- Combination belt/disc sanders
- Dewalt table router and scroll saw
- Drill press
- Electronics gear and soldering equipment
- Etching press
- Grinders
- Heat press with hat and mug attachments for vinyl
- Langmuir Crossfire Pro Plasma CNC
- Metal gunsmithing lathe
- MIG and TIG Welders
- Power and hand tools
- Proofing press
- SawStop table saw, band saw, compound miter saw
- Vertical mill
- Woodworking power carving set

5.6.3 Space to support and encourage the full range of faculty roles and responsibilities, including preparation for teaching, research, mentoring, and student advising.

**Program Response:**

The six full-time architecture faculty are provided with office space which fulfils a range of functions. Two of the six faculty share one large office, the remaining four each have their own office spaces. The offices vary in size from about 100 sq. ft. to approximately 350 sq. ft. Many of the faculty responsibilities, including classroom preparation, research, mentoring, and advising, take place in the faculty offices.

The library provides several resources and spaces to aid in faculty research. Spaces for this purpose include the Virtual Reality Studio and individual study rooms. The VR Studio is equipped with the latest generation of VR Technology ensuring the best in performance/ functionality. This space can be reserved by faculty and students and is available for 6 or 7 hours six days a week.

The library has an extensive collection of books and periodicals (in both physical and digital formats) to aid in faculty research. These are described in more detail in section 5.8 below.

5.6.4 Resources to support all learning formats and pedagogies in use by the program.

**Program Response:**

The majority of the courses in the Architecture Department are taught in the typical face-to-face classroom setting. Indeed, students must be on campus to earn each degree we offer. A small number of courses are however, typically offered in an online or hybrid fashion.

ACH 262 – "Sustainability: Building & Living Green" is most often taught as a distance education / online course.

BSD 450 – "Sustainable Rating Systems" has been taught in a distance education format for the past several years.

GLB 270 – "Global Experience: European Sustainable Building, Historical Architecture & Art" is taught in a hybrid format. During the spring semester, students fulfill course requirements in an online format. After the end of the spring semester, faculty and students take a 2-week trip to various European destinations.

GLB 271 – "Global Experience: Global Cities - Architecture Ideals, Urban Forms & Artistic Aspirations" is taught in a format identical to GLB 270. GLB 270 and GLB 271 are typically offered in alternating years.

P.L.A.T.O. is the name given to Penn College's online learning platform. This platform is based on the D2L learning management system. Every course at Penn College has a P.L.A.T.O. website. All faculty are required to keep grades and attendance records on P.L.A.T.O. Faculty also use it for other course content as well as for quizzes and exams. The D2L system is a very robust system employed by many colleges and universities. Penn College provides professional development courses related to P.L.A.T.O. There are also IT personnel from Educational and Emerging Technologies who are available to help faculty use P.L.A.T.O. in their courses. This can happen during P.L.A.T.O. Drop-In sessions or on an individual basis as P.L.A.T.O. questions arise.

Penn College uses Starfish, a college success and retention program, to help identify students who may need additional support to achieve academic success. Starfish also helps to celebrate student achievements (Kudos), both inside and outside of the classroom. Starfish allows faculty and staff to initiate coordinated communication and intervention efforts among student support services across campus.

Starfish is not a substitute for direct discussions with students, but it serves as a secondary layer of support to notify students, specific departments, Academic School Leadership, and Academic advisers, all of whom will work together to provide the student with the needed assistance.

If the program's pedagogy does not require some or all of the above physical resources, the program must describe the effect (if any) that online, off-site, or hybrid formats have on digital and physical resources.

**Program Response:**

As mentioned above, currently only a small subset of courses are offered in an online or hybrid format. Most courses are still taught face-to-face in the classroom. Students enrolled in our B. Arch. program are required to be on-campus for the bulk of their education.

## 5.7 Financial Resources

The program must demonstrate that it has the appropriate institutional support and financial resources to support student learning and achievement during the next term of accreditation.

**Program Response:**

**The Budgeting Process:**
Financial Operations supports the College's mission by providing fiscal stewardship to the entire College community. As such, they mitigate financial risk while maintaining clear processes that ensure the timely preparation of each fiscal year's budget. They also ensure that the finalized budget reflects the current strategic plan and annual assessments, while considering each department's short and long-term goals and current enrollment trends.

The process begins in November when cost center administrators, in this case the Assistant Dean of Construction and Architectural Technology, meet with department directors to prepare an Activity-Informed Budget based on the department's strategic goals and accompanying budgetary needs for the upcoming fiscal year. The needs for each goal are then distributed into the appropriate category: staffing, capital equipment, instructional and non-instructional supplies, information technology, duplicating and printing, memberships, professional development and accreditations, travel (faculty and student), etc. There are also line items in the budget that address unexpected issues, i.e. Preventative Maintenance and Equipment Repairs. Afterward, each department's budgetary needs are compiled into one division budget, which is discussed with the Dean of the School of Engineering Technologies and the Dean of Enrollment & Academic Operations, and moved forward for final approval by the President's Council, and ultimately the Board of Directors. At each stage, the student's learning outcomes and achievements are at the forefront of the process.

**Program Reviews:**
On a five-year cycle, each department must develop a Program Review document that is shared with the administration including the Dean of Curriculum and Instruction and the Provost. This document includes a brief history of the program and its rationale, the key markets served, and assessment of the program's goals and Program Learning Outcomes, as well as the program's Course Learning Outcomes and core foundation (general education) assessments. It also includes an overview of the program's industry demand, placement data, capital equipment needs, resources and costs, culminating in an overall snapshot of the *sustainability* of the program.

| | Revenue | | Total Revenue | Credits Produced | Cost Per Credit |
|---|---|---|---|---|---|
| | Tuition | Lab | | | |
| 2019-2020 | 1,233,747 | 126,360 | 1,360,107 | 2,523 | $419 |
| 2020-2021 | 1,070,496 | 110,565 | 1,181,061 | 2,124 | $499 |
| 2021-2022 | 1,101,744 | 117,585 | 1,219,329 | 2,186 | $503 |
| Source: Penn College Cost Center Data – Architecture Program's Financial Operations | | | | | |

Table 5.7.1: Revenue, Credits and Cost per Credit

The financial viability of the programs is also reviewed at that time with an emphasis on tuition-based revenue, credits produced and the costs per credit hour. This information is compiled by the institution's Financial Operations Department in conjunction with the office of Assessment, Research and Planning. As demonstrated in Table 5.7.1, the architecture programs, collectively, suffered a significant setback during the Covid years. This is not surprising, but did affect the program's operating budget, as expected.

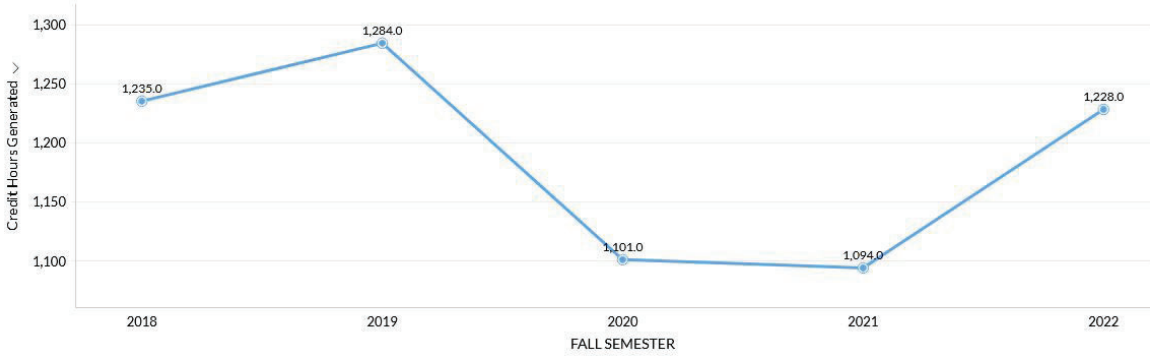



*Fig. 5.7.2: ACH and BSD Credit Hours Generated in Fall Semester*

As these figures are relatively short-term, the office of Assessment, Research and Planning also provided a longer-term view of the credit hours generated over a five-year period. As shown in Figure 5.7.2 and Figure 5.7.3, prior to the pandemic enrollment was full-time enrollment and the credit hours generated from the department's instruction were much healthier. Penn College's leadership, the school of Engineering Technology and the architecture department anticipate a continued upward trend in enrollment over the course of the upcoming years.

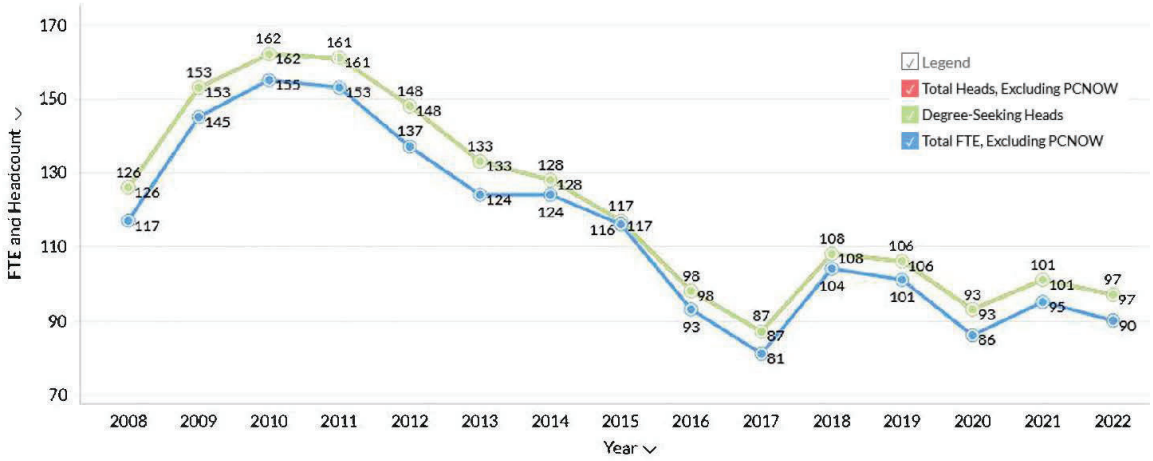



*Fig. 5.7.3: Architecture Department FTE and Headcount / Year (AT, AX, ASD, BSD, BST, BSC)*

**The 2021-2022 Financial Data:**
In any institution of higher education, salary and benefits are the bulk of the costs to their programs; Penn College's Architecture Dept. is no exception. At the end of the fiscal year, June 30, 2022, the department's total direct costs were $1,050,927 with just over $1,000,000 in faculty salaries (including overload, adjunct and summer pay) and benefits. When the department's share of administrative costs was applied, the total program cost was $1,100,408. Even so, its total revenue for that fiscal year was $1,219,329. Thus, there was just under 10% profit for the entire department, which is being reinvested in the department's facility expansion and relocation to create a stronger sense of community and identity for the department.
These figures include salaries, benefits, instructional supplies, non-instructional supplies, gasoline, postage, printing & duplicating, faculty travel, staff development, public/corporate relations, equipment repairs and student travel. It does not include furniture, computer/IT, the facilities' maintenance, and library and student chapter costs, which are line items in other budgets.

**Investing in the Program:**
Even when unexpected opportunities arise, the College supports them. For instance, during the spring 2022 semester a group of students advanced to the finals in the Office Division of the Solar Decathlon. While not originally part of the department's budget, the Assistant Dean submitted an application to the College's Student Organization Matching Fund Request, which was approved almost immediately and provided up to $5990 in additional funds for the student's registration fees, equipment needs, and travel expenses. Likewise, in the spring of 2023 one of the faculty, Rob Wozniak, determined that it would be beneficial for the "Detailing and Applications" class (BSD 340) to construct two full-scale wall sections, one constructed from a typical residential design in our geographic area and the other from a Passive House design. Although this initiative was unplanned, the Assistant Dean found the funds in the budget and approved the request up to $1500. At the end of the semester, when the students were asked, informally, about their class experiences they cited this effort as "time consuming but well worth it."

The prospect of moving to the ACC building was not formally requested by the department, but when the opportunity arose to make an important facilities investment – almost doubling the department's square footage and providing classrooms and studio spaces exclusively for the architecture department – the College supported the move. As of May 2023, the College has set a $500,000 physical-renovation budget, finalized the schedule, and is in the final stages of design development, with an anticipated move in date in the Summer 2024. (For a more detailed description, please refer to section 5.6.).

**Grants to Support the Program:**
In March 2023, the College submitted a National Science Foundation (NSF) S-STEM Track 2 grant, known as the S-STEM: Infrastructure Scholars (iScholars) grant proposal, which is based in the Architecture Department. Naim Jabbour, DDes-Architecture, will serve as the principal investigator (PI) and Ellyn A. Lester, PhD, will serve as a Co-PI and STEM Administrator for the grant.

If selected, this $2,500,000, six-year program will support approximately 42 low-income, high-achieving Penn College scholars seeking Bachelor of Science (B.S.) degrees from several programs including the Architecture Department's four-year B.S. and five-year B. Arch. degrees. Awardees will receive scholarships of up to $15,000 and up to four years of scholarship support. The department should be notified of the results in fall 2023. This submission was a significant investment for the College in time and resources and demonstrates its continuing support of the department.

**Summary:**
Overall, the architecture programs at Penn College are experiencing a rebound post-Covid. We also believe that this upward trend is due to the Bachelor of Architecture program and our quest for NAAB accreditation. The College is supportive of our efforts as well as the advisory board, the faculty and the department's students.

## 5.8 Information Resources

The program must demonstrate that all students, faculty, and staff have convenient and equitable access to architecture literature and information, as well as appropriate visual and digital resources that support professional education in architecture.

**Program Response:**

Introduction to Madigan Library
The Madigan Library at Pennsylvania College of Technology (PCT) supports and advances the instructional and research needs of students, faculty, and staff by providing access to collections

in all formats, by assisting and instructing students in their use, and by creating a physical environment that enhances the learning process and encourages lifelong learning. The two-story library features four computer labs, group study rooms, a café, an art gallery, and an archives and special collections room. The collection includes 86,311 print volumes, 268 print subscriptions, 191 database subscriptions, and more than 130,000 online journal and 70,000 eBook titles. The library's 4-year strategic plan, which feeds into the College's Academic Affairs plan, includes goals for resource management, programs and services, and the use of resources and services. The Madigan Library offers numerous services to our faculty, staff, and students. These services are described on the library webpage: https://www.pct.edu/academics/madigan-library.

Resources and Access
Madigan Library provides specialized resources for Architecture & Sustainable Design in a variety of formats, with an abundance of finding aids for students to locate the right resource for their needs. A full-time faculty librarian liaison provides collection development and faculty outreach to the students and faculty in the program. A snapshot of the current collection for these areas is shown below as compared to the library's overall collection of resources.

| | Architecture | Building Construction, Construction Management, HVAC | Civil Engineering & Surveying |
|---|---|---|---|
| Books & eBooks | 3,071 | 3,457 | 3,278 |
| Print Periodicals* | 9 | 39 | 7 |

*This count is print periodicals only. It doesn't include online journals in database subscriptions.

All architecture print books available for checkout are on the 1st and 2nd floor of the Madigan Library. This includes any larger visual material in the Oversized Print Collections and our Reference areas. All electronic books are available online through the library's catalog from on and off campus. Current periodicals are on the first floor of the Madigan Library. All back issues are on the second floor of the Madigan Library. All electronic periodicals are available online through the library's catalog from on and off campus. Students, faculty, and staff can search the content of all e-journals through the WorldCat Discovery application. This allows the searching of all full-text holding as well as journals available only as abstracts or indexes.

In an instance where a student needs a book or journal the library does not hold, Interlibrary Loan services are available for the borrowing and lending of material between the Madigan Library and other libraries. Library materials can be borrowed for PCT faculty, staff, and students. Requests are processed through an online network covering over 10,000 libraries. Forms to request material from other libraries are available online. The College uses Tipasa to submit requests by completing an online form or through links in databases. Tipasa can also be used to monitor the status of items already requested and to renew material. An email is sent when items are received. Books and media materials can be picked up at the library or, if preferred, sent via interoffice mail. Articles can accessed online, attached in an email, or printed and sent via interoffice mail.

Many of Madigan Library's architecture related resources are provided in an online format which can be accessed at any time, on and off-campus access. These resources are accessible through the library website or P.L.A.T.O, the campus' course management system. Students can locate journals, periodicals, etc. by using the search link on the Library's website or via online guides created for architecture resources that are created by the librarian liaison. In addition to the library's overall OCLC WorldCat Discovery Catalog, students are directed to architecture and building construction specific collections of resources listed here.

Online databases utilized by Architecture and Sustainable Design:

- ASCE Library
- BuildingGreen
- EBSCO: Academic Search Complete
- EBSCO: Associates Programs Source Plus
- Films OnDemand: Technical & Trade
- Gale In Context: Environmental Studies
- GreenFILE
- MADCAD
- Proquest: Arts & Humanities Database
- Proquest: Career & Technical Education Database
- Proquest: Engineering Database
- Proquest: Environmental Science Database
- Proquest: Materials Science Database
- Proquest: Science & Technology
- Sage Journals

In addition to these print and online resources, Reserve items are also kept at the library by instructor request or in collaboration with the program librarian liaison. Books and materials on reserve are located at the Circulation Desk of the Madigan Library. In addition to the reserve collection, a number of campus building plans as well as Williamsport local building plans are housed in the College archives and special collections. Copies of the originals remain on reserve during any of the library's operating hours. The library holds a number of drafting tables that are available for check out as well as a number of tools for renewable energy technologies courses and projects.

The Architecture & Sustainable Design purchasing budget for library materials is under one fund distinct code. Corresponding fund codes are included for the areas of Building Construction, Construction Management, HVAC, and Civil Engineering & Surveying. Each fund code has a base allocation for print materials and for non-print media (DVDs, videos, etc.) Monies outside of this base allocation are allotted for new faculty, new programs, and one-time collection reviews and enhancements.

Items are purchased with budget monies in the following order:

1. Faculty recommendations
2. Recommendations from accrediting and certifying organizations
3. Standard publications in the industry
4. Requests from students

Additional spaces and materials in Madigan support the Architecture programs such as a virtual reality room, added in fall 2019. The studio has seen extensive use by faculty and students for academic and leisure use. For example, Architecture students use the room to tour famous buildings worldwide. The library's 2016–17 survey also resulted in the following improvements to the library space: extended late-night hours, private study spaces with power/USB outlets added to the second floor, a 24/7 coffee machine for late-hour beverages, and additional wellness opportunities and resources. In the library's top floor Art Gallery space, the senior architecture students are able to showcase their capstone work at the semester's end as well. In this special art gallery exhibit, students have the opportunity to showcase and discuss their work with the campus community, future employers, and beyond.

Madigan Library places accessibility concerns at the forefront of all of its resource allocations. All websites are run through accessibility checks before publication including the main library website and the librarian created Libguide websites. DVDs purchased physically or in an online streaming database have closed captioning or supplemental transcripts. The library space also provides a

number of assistive technologies listed on our website including Sorenson Video Relay Service, Zoom Text Magnifier, Kurzweil 3000 reading software, JAWS for Windows reader software, Dragon NaturallySpeaking speech recognition, Trackball Mouse, Optical Character Recognition Scanner (OCR), PDF Equalizer, JSay Pro reading software, and the Topaz Video Magnifier.

Systematic assessment, supported by data provided in the Library's annual assessment report and in regularly scheduled user surveys, guides planning to ensure that effective support continues. The library assesses usage trends and adapts to meet the demands of students, faculty, and staff. For example, usage data revealed that digital resources are in high demand. In response, the library not only adjusted spending to grow digital resources, but also concentrated efforts on accessible design of the website and library content within P.L.A.T.O.

Future Plans
An extensive campus-wide survey is completed every 5 years to assess the effectiveness of library instruction, facilities, and programs that support the student experience. From this upcoming survey, we plan to adapt our materials, space, and instruction to meet student, staff, and faculty needs.

A more inclusive integration of library instruction into the programs and classes would enhance the use of our resources even more, as well as the skill set of our architecture students. The 5th year thesis, for example, will require individualized attention to their research needs. Oberlin will collaborate with faculty and work closely with student projects to ensure they have the resources and research skills needed for industry success. This information literacy instruction will set PCT's architecture students apart in their fields.

Further, the program must demonstrate that all students, faculty, and staff have access to architecture librarians and visual resource professionals who provide discipline-relevant information services that support teaching and research.

**Program Response:**

Library Instruction and Reference Services
The Madigan Library strives, with the College as a whole, to empower students to become life-long learners who can function independently and collaboratively. Specifically, the mission of the Madigan Library is to support and advance the instructional and research needs of its students, faculty and staff. We do so by building, maintaining, and providing access to collections in all formats, by assisting and instructing our patrons in their use, and by creating a physical environment that enhances the learning process. Six faculty librarians provide information literacy instruction and research/reference assistance. Each of the three academic schools is assigned at least one librarian to work with students and faculty on instruction and resource needs specific to their disciplines. In addition, the librarians create digital resource guides (known as Libguides), which include video lessons, specialized resources, and practice exercises. Libguides are available via the web or are embedded in P.L.A.T.O. (the College's Learning Management System) course sites, thus supporting student learning wherever and whenever students are researching. Additional guides are maintained for faculty to provide easy access to relevant library services.

The Construction & Architectural Technologies Division at Penn College is assigned a specific librarian to its courses and content. Jessica Urick Oberlin has served as the architecture liaison for five years and is a member of the Association of Architecture School Librarians. Oberlin also serves as the College's Information Technology Initiatives Librarian where she supports and develops emerging technologies into the library's integrated systems and online resources. In addition, she is a co-advisor of the Penn College Women in Construction student club. Oberlin has worked with various faculty and course subjects throughout the years with the following guide

and course list. Along with the collection development for these programs and a constant analysis of our online materials, Oberlin is able to provide a robust support for professional education in architecture.

Collaborative Library Instruction and Libguides:

- Architecture: General Resource Guide
- ACH 101 “Introduction to Architecture”
- ACH 112 “Architectural History”
- ACR251 “Warm-Air Heating & Duct Design”
- ACH 262 “Sustainability: Building and Living Green”
- “Architecture Capstone Studio”
- BCM 103 “Construction & Program Orientation”
- BCT 256 “Residential Construction Planning, Scheduling, & Management”
- BSD 352 “Architectural Design Studio V”
- Building Construction & Management: General Resource Guide
- CET 259 “Boundary Surveying I”
- Civil Engineering & Surveying: General Resource Guide
- Heating, Ventilation, Air Conditioning & Refrigeration: General Resource Guide

In addition to formal instruction and faculty collaboration, librarians staff reference hours either in-person, online via chat, through email, text, or by phone. Students, faculty, and staff have access to these forms of communication at all times from the library’s website.

Information Technology Services (ITS)
Campus wide, more than 1,800 computers in more than 50 academic computer labs are available for student use, with a student-to-computer ratio of 3:1. In addition to lab resources, ITS manages more than 200 technology-enabled classrooms with cutting-edge computing resources and high-resolution data-projection systems. Computing resources reside on a powerful network, with robust security and anti-virus systems to protect student data. Students have access to hundreds of software applications and cloud-based services while on the College campus, including the full Microsoft Office 365 suite. ITS prioritizes student needs in all technical support cases. End-user feedback on campus support, collected on an ongoing basis, is overwhelmingly positive, with over 90% of surveyed respondents selecting “Satisfied” or “Very Satisfied”. Hardware and software purchases are strategically aligned with detailed input from students, faculty, and academic administration. Equipment-replacement cycles are prioritized based on age of equipment, program needs, and available funds. Software and cloud-based services are vetted through a comprehensive process to ensure security, accessibility, and interoperability with existing campus tools and systems.

ITS played an important role in the College’s COVID-19 response, particularly as it relates to ensuring continuity of learning when many students were unable to be on campus. An example of this would be the implementation of Apporto, which provided virtual lab space for students in technology dependent programs. The use of Apporto provided access to AutoCAD and Revit for architecture program students who had access to the web, but whose computer systems would otherwise not have been robust enough to run these graphics and RAM intensive applications. Additional examples include the purchase of more than 20 new laptops for use by quarantined students or students who were unable to come back to campus to complete assigned work; and installation of remote instructional delivery tools in classrooms around campus, creating hybrid learning spaces where faculty could deliver content to face-to-face students and remote (quarantined) students simultaneously.

# 6—Public Information

The NAAB expects accredited degree programs to provide information to the public about accreditation activities and the relationship between the program and the NAAB, admissions and advising, and career information, as well as accurate public information about accredited and non-accredited architecture programs. The NAAB expects programs to be transparent and accountable in the information provided to students, faculty, and the public. As a result, all NAAB-accredited programs are required to ensure that the following information is posted online and is easily available to the public.

## 6.1 Statement on NAAB-Accredited Degrees

All institutions offering a NAAB-accredited degree program or any candidacy program must include the exact language found in the NAAB Conditions for Accreditation, 2020 Edition, Appendix 2, in catalogs and promotional media, including the program's website.

**Program Response:**

Once we are accredited or have achieved candidacy status, we will include the required language from Appendix 2 of the 2020 NAAB Conditions for Accreditation in our catalog, promotional media and our program website. Currently the language included on our B. Arch. webpage (in the "About this program" section) and our marking materials reads as follows:

> "The Bachelor of Architecture program is pursuing initial candidacy status for accreditation with the National Architectural Accrediting Board."

## 6.2 Access to NAAB Conditions and Procedures

The program must make the following documents available to all students, faculty, and the public, via the program's website:

**a)** Conditions for Accreditation, 2020 Edition
**b)** Conditions for Accreditation in effect at the time of the last visit (2009 or 2014, depending on the date of the last visit)
**c)** Procedures for Accreditation, 2020 Edition
**d)** Procedures for Accreditation in effect at the time of the last visit (2012 or 2015, depending on the date of the last visit)

**Program Response:**

Once we are in candidacy status, we will provide access from our website to the 2020 Conditions for Accreditation and the 2020 Procedures for Accreditation.

## 6.3 Access to Career Development Information

The program must demonstrate that students and graduates have access to career development and placement services that help them develop, evaluate, and implement career, education, and employment plans.

**Program Response:**

PCT provides our students and graduates with several career development-related services. The "Center for Career Design" is "a physical space and operation available on campus and virtually to bring students, alumni, and industry partners together for all things career related." Career Services "assists with career exploration during and after college, provides multiple networking and recruitment opportunities, and helps create marketable job candidates." The Penn College Career Hub is a job posting board and a virtual Career Fair platform. PCT also has a Career Fair

every fall and spring semester which draws hundreds of employers looking to hire our students and graduates.

The Wildcat Alumni Career Mentor Program connects Penn College students and alumni, providing students with opportunities to interact with industry professionals, grow their knowledge of potential career paths, and develop professional networks.

## 6.4 Public Access to Accreditation Reports and Related Documents

To promote transparency in the process of accreditation in architecture education, the program must make the following documents available to all students, faculty, and the public, via the program's website:

- **a)** All Interim Progress Reports and narratives of Program Annual Reports submitted since the last team visit
- **b)** All NAAB responses to any Plan to Correct and any NAAB responses to the Program Annual Reports since the last team visit
- **c)** The most recent decision letter from the NAAB
- **d)** The Architecture Program Report submitted for the last visit
- **e)** The final edition of the most recent Visiting Team Report, including attachments and addenda
- **f)** The program's optional response to the Visiting Team Report
- **g)** Plan to Correct (if applicable)
- **h)** NCARB ARE pass rates
- **i)** Statements and/or policies on learning and teaching culture
- **j)** Statements and/or policies on diversity, equity, and inclusion

**Program Response:**

Once we are in candidacy status, we will promote transparency in the accreditation process by making the documents 'a' through 'j' (from the list above) available to all students, faculty, and the public, via our program website.

## 6.5 Admissions and Advising

The program must publicly document all policies and procedures that govern the evaluation of applicants for admission to the accredited program. These procedures must include first-time, first-year students as well as transfers from within and outside the institution. This documentation must include the following

- **a)** Application forms and instructions
- **b)** Admissions requirements; admissions-decisions procedures, including policies and processes for evaluation of transcripts and portfolios (when required); and decisions regarding remediation and advanced standing
- **c)** Forms and a description of the process for evaluating the content of a non-accredited degrees
- **d)** Requirements and forms for applying for financial aid and scholarships
- **e)** Explanation of how student diversity goals affect admission procedures

**Program Response:**

Penn College is an open enrollment college, and the B. Arch. program also follows the open enrollment approach. There are no requirements beyond the typical PCT application requirements when enrolling in the B. Arch. program as an incoming freshman. First year undergraduate students can use the Common App.

- **a)** Forms and instructions related to the application process can be found on the web.
- **b)** The following information describes the College's Admissions Policy:

It is the intention of Penn College to offer educational opportunities to anyone who has the interest, desire, and ability to pursue postsecondary study. Admission to the College is open to applicants who have a high school diploma or its equivalent and who satisfy necessary placement requirements. Some majors are restricted to applicants who meet certain academic skills and prerequisites; major-specific admission criteria are referenced in the major's curriculum information in the College Catalog. Questions regarding the admission standards for specific majors should be directed to the Admissions Office.

The College reserves the right to deny admission or re-admission to any student if, in the opinion of College authorities, their admission is not in the best interest of the student or the College. The College will provide opportunities to develop the basic skills necessary to enroll in degree and certificate courses to those who demonstrate such needs on the College's placement tests.

Placement Requirements
Penn College evaluates students' skills to ensure each student has the entry-level ability necessary to be successful in their college-level coursework. The goal of the placement process is to identify the correct initial placement in math. In addition to completion of placement testing, an applicant may satisfy placement requirements through transfer courses or established minimum SAT/ACT scores.

When placement test results indicate that a student is significantly underprepared for college-level coursework, acceptance may be rescinded until the necessary academic deficiencies are remediated. Some majors are subject to specific remediation requirements and are noted in the major's curriculum information in the College Catalog.

Developmental Education Courses
Since developmental courses provide the foundation for subsequent courses, including those in the student's major, it is particularly important for both full- and part-time students to successfully complete those courses prior to or during their first semester. If multiple developmental courses are required within the same discipline, they must be scheduled in consecutive semesters until all are complete, unless the school dean approves a delay. Students enrolled in developmental courses do not have the option of dropping/withdrawing from these courses.

Additional protocol relating to developmental course work is stipulated in the College's Academic Preparedness and Remediation Policy and Procedure (P4.30). Current students can access these, as well as all official policies and procedures, on the myPCT Portal (login required).

**c)** The College publishes a "Transfer Guide" to address all issues related to the transferring of credits. There are also webpages devoted to "Transfer Students", "Transferring Credits", and "Advanced and Alternative Credit". These pages include links to the forms required in each transfer process.

**d)** Penn College students have the opportunity to apply for more than 350 individual scholarships. This includes 15 scholarships available to architecture program students (among other specified programs), and one scholarship available only to female architecture students. Dr. Davie Jane Gilmour, the past president of the College, made it a focus of her last year to raise money for students, especially scholarships. Her Legacy Campaign raised $17,432,845 for scholarships. The average scholarship award is $1,000 - $3,000 per year, while a few range between $5,000-10,000 per year. The scholarship process (as described in the link above) requires the submission of three forms:

- the Financial Aid Authorization (FAA)
- the Free Application for Federal Student Aid (FAFSA)
- the Penn College Scholarship Application

**e)** The College and the Architecture Department each have an open enrollment policy, whereby any interested student can enroll in our programs. There are also efforts underway to increase the diversity of those who choose to enroll. The College has hosted many "Smart Girls" activities over the years. Marketing to this group of young high-school age female prospects has certain benefits from a diversity point of view.

Our school was responsible for a scholarship program known as Built Environment (BE) scholars which rewarded academic talent in STEM related construction and engineering fields. Architecture faculty took a leadership role in obtaining this $1 million-dollar National Science Foundation grant. Because of the significant scholarship amounts awarded, some bright students who might not have otherwise been able to afford college were able to earn a degree. The two primary selection criteria were financial need and academic performance. The program ran from 2017-2020 with acceptance in associate degrees. 49 students were awarded scholarships, including 14 from architecture.

## 6.6 Student Financial Information

6.6.1 The program must demonstrate that students have access to current resources and advice for making decisions about financial aid.

**Program Response:**

The PCT Financial Aid office and related web pages provide access to current resources and advice for making decisions about financial aid. These resources include information related to grants, scholarships, loans, FAFSA, Work-Study opportunities, and other aid programs and financial options.

6.6.2 The program must demonstrate that students have access to an initial estimate for all tuition, fees, books, general supplies, and specialized materials that may be required during the full course of study for completing the NAAB-accredited degree program.

**Program Response:**

All current fees are available at the Penn College tuition fees and charges webpage. PCT provides an online cost-estimator to generate an initial estimate for costs associated with earning a degree. This estimator is program specific and includes the cost of tuition, fees (including lab fees), books, tools, housing, and dining. It provides an estimate for the first-year costs associated with the Bachelor of Architecture degree. This yearly estimate can be multiplied by five to arrive at the total estimated cost to complete the five-year B. Arch. program.

# Appendix A: The Plan for Achieving Initial Accreditation

NAAB

July 31, 2022

# Eligibility Application/
# Plan for Achieving Initial Accreditation

Degree Program Proposed:

## Bachelor of Architecture  152 Credits

PENNSYLVANIA COLLEGE OF TECHNOLOGY

One College Avenue
Williamsport, PA. 17701

Geoff Campbell, Department Head for Architecture
gcampbel@pct.edu
570.320.2400 ext. 7465

Ellyn Lester, Assistant Dean of Construction & Architectural Technologies
ealester@pct.edu
570.320.2400 ext. 7209

Dr. Brad Webb, Dean of Engineering Technologies
bwebb@pct.edu
570.320.2400 ext. 4437

Joanna Flynn, Dean of Curriculum & Instruction
jflynn@pct.edu
570.320.2400 ext. 7633

Dr. Michael Reed, President of the College
mjr18@pct.edu
570.320.2400 ext. 7461

NAAB

TABLE OF CONTENTS

NAAB

## 1. Letter from Chief Academic Officer

Pennsylvania
College of Technology
A Penn State Affiliate

One College Avenue
Williamsport, PA 17701
570.326.3761 | www.pct.edu

28 June 2022

Tanya A. Tamarkin, Executive Director
National Architectural Accrediting Board
107 S. West St.
Suite 707
Alexandria, VA 22314

Dear Executive Director Tamarkin,

I write to inform you that Pennsylvania College of Technology intends to seek candidacy for accreditation for its Bachelor of Architecture (B.Arch) degree.

The 152-credit B.Arch degree received all necessary internal approvals from the College's curriculum council, provost, and president for a Fall of 2022 implementation. The B.Arch program does not require any additional prerequisites outside of the standard college enrollment requirements.

Pennsylvania College of Technology has been delivering Bachelor of Science architecture programs for many years; therefore, with a dedicated and talented full-time architecture department, coupled with high-quality labs and industry partners, the institution is well-positioned to implement the B.Arch program.

All necessary materials are included for your review, and we look forward to our continued work with the National Architectural Accrediting Board.

Sincerely,

Michael Reed, Ed.D.
Vice President for Academic Affairs & Provost
Pennsylvania College of Technology
mjr18@pct.edu

## 2. Letter from Middle States

The Middle States Commission on Higher Education no longer sends single page letters confirming accreditation. The images below were taken from the first two pages of the Statement of Accreditation Status (SAS). The complete SAS can be found at the following URL:

https://www.msche.org/institution/0581/

MSCHE
MIDDLE STATES COMMISSION ON HIGHER EDUCATION
1007 North Orange Street
4th Floor, MB #166
Wilmington, DE 19801
www.msche.org
Follow us: @mscheorg

### STATEMENT OF ACCREDITATION STATUS

*The Statement of Accreditation Status (SAS) is the official statement of the Middle States Commission on Higher Education (MSCHE) about each institution's current accreditation status and scope of accreditation. The SAS also provides a brief history of the actions taken by the Commission.*

| | | |
|---|---|---|
| **Institution:** | **PENNSYLVANIA COLLEGE OF TECHNOLOGY** | Williamsport, PA |
| **Address:** | One College Avenue<br>Williamsport, PA 17701 | |
| **Phone:** | (570) 326-3761 | |
| **URL:** | www.pct.edu | |
| **Accreditation Liaison Officer (ALO):** | Dean Joanna Flynn | |
| **Commission Staff Liaison:** | Dr. Melissa Hardin, Vice President | |

**Phase:** Accredited

**Status:** Accreditation Reaffirmed

**Accreditation Granted:** 1970

**Last Reaffirmation:** 2022

**Next Self-Study Evaluation:** 2029-2030

**Next Mid-Point Peer Review:** 2026

## 3. Plan for Achieving Initial Accreditation

## PART ONE
# Introduction

The faculty of the Architecture department at Pennsylvania College of Technology are excited to be submitting this Eligibility Application for Candidacy as the first step in achieving NAAB accreditation for our new Bachelor of Architecture program.

In this document you will find our long-term objectives for establishing and implementing this new program, which stems from our well-established Associate of Applied Science in Architecture and Bachelor of Science in Architecture and Sustainable Design programs. We will also clarify how the new program already complies with the Conditions of Accreditation, specifically addressing the program's identity in section 1 on page 7, our current resources, which are addressed in sections 5.4.1 (faculty), 5.6 (facilities), and 5.7 (finances), the curricular framework (section 4) as well as our proposed timeline for achieving initial accreditation, in PART TWO.

You'll find references to our new B.Arch., including our institutional approval process in section 1 on page 4 – how we've started to recruit and retain our first cohort of students for the fall 2022 semester on page 4, recruitment for faculty in section 5.5.2, and how we'll handle the situation in case initial accreditation isn't granted on page 5.

Although we are confident that our program meets the requirements for the Eligibility Application, we did want to note that this initial eligibility application process has been revealing in some areas, which we will be addressing during the next phase of the application. We look forward to our ongoing work and interaction with the NAAB.

# 1—Context and Mission

To help the NAAB and the visiting team understand the specific circumstances of the school, the program must describe the following:

The institutional context and geographic setting (public or private, urban or rural, size, etc.), and how the program's mission and culture influence its architecture pedagogy and impact its development. Programs that exist within a larger educational institution must also describe the mission of the college or university and how that shapes or influences the program.

*Program must specify their delivery format (virtual/on-campus).*

**Program Response:**

Pennsylvania College of Technology (Penn College), a public institution located in a rural area in north central Pennsylvania, offers associate's, bachelor's, combined bachelor's/master's, and master's degrees, along with certificates and competency credentials in more than 100 majors, emphasizing hands on learning and applied technologies. In fall 2021, 4,240 students were enrolled in classes at four locations: the main campus in Williamsport, PA (population 27,603); the Lumley Aviation Center in Montoursville, PA; the Advanced Automotive Technology Center in Williamsport, PA; and the Schneebeli Earth Science Center in Allenwood, PA. Additionally, a number of degrees are offered 100% online. Penn College provides an academic environment with modern facilities, an exceptional array of student-centered services, and academic programs with an overall graduate placement rate of 96.2% (2017–20) in high-demand industries.

The College began in 1914 as a high school offering adult training to meet the growing demands of local industry. In 1941, the emphasis shifted to vocational training and the Williamsport Technical Institute (WTI) was established. The passage of the Community College Act of 1963 led to the next evolutionary stage: the Williamsport Area Community College (WACC), which used the WTI programs and facilities as the starting point for continued growth and development. During the 1970s and 1980s, enrollment grew, physical property expanded, and curricular offerings increased. Economic shifts in the 1980s led school districts to withdraw sponsorship when the original 20-year sponsorship agreement expired. Community colleges still required a local sponsor, thus the city of Williamsport stepped in to fill that role and keep the institution open.

The presidents of Penn State University and the Williamsport Area Community College, along with the governor of Pennsylvania, announced the intent to create an affiliation between Penn State and Williamsport Area Community College, creating the next iteration of the institution. On July 1, 1989, Williamsport Area Community College became Pennsylvania College of Technology, "Penn College," a special mission affiliate of Penn State. As an affiliate rather than a branch campus, Penn College positioned itself as Pennsylvania's premier technical college, maintaining governing and curricular independence. With this evolutionary stage, the College added bachelor's degrees to its curriculum portfolio and on-campus housing to meet the changing needs of its students. The Architecture department launched the four-year "Building Science and Sustainable Design" Bachelor of Science degree in 2009. It was later renamed as "Architecture and Sustainable Design".

The mission and goals of Penn College are at the core of its identity as a college of *applied technology*. Time and resources are invested in defining, articulating, and assessing strategic goals that support the mission and reaffirm the College's unique position in higher education within the state and the nation. The mission is guided by the College's commitment to providing its students an array of opportunities to achieve their goals. The College offers a variety of academic degrees and certificates, workforce training, and co-curricular experiences that are supported through the mission, vision, values, and strategic plan.

In the summer of 2022, the Board of Directors approved new mission and vision statements and refined Penn College's core values, strategic goals, and initiatives. The College derives its strength and focus from its mission, which articulates the close alignment with hands-on, experiential learning opportunities that are responsive to career-focused education. The mission reflects the College's longstanding commitment to guiding its students to work and lead in a wide range of in-demand fields. In alignment with the Mission, the College's current strategic plan (2022 - 2026) was developed as a 4-year initiative with three overarching goals and associated initiatives. Please find the College's Mission, Vision and Values, as well as its 2022-2026 Strategic Plan at this link.

The college's mission and vision statements as well as its core values, strategic goals, and initiatives, provide direction to the College's three schools: Business, Arts & Sciences, Nursing & Health Sciences, and Engineering Technologies. The Architecture department is in the School of Engineering Technologies.

**School of Engineering Technologies (ET) Mission Statement:**

The School of Engineering Technologies is committed to providing a student-centered learning environment that focuses on the application of hands-on technical skills and the development of a strong theoretical foundation. Through the use of practical and real-world projects, students will be engaged with state-of-the-art facilities and industry partners, leading to an appreciation for lifelong learning. Upon graduation, our students will be prepared to make an immediate positive impact within industry and their community.

## The Architecture Department:

As an integral part of the College and the school, the Architecture department has influenced and is influenced by each in turn. As such, the department fully embraces the College's mission to prepare the next generation of industry leaders by integrating real-world experiences throughout the program. In addition to the obvious connection to industry, this has led to an ongoing focus on sustainability that is still a primary focus of the department today.

The architecture program at Penn College was first offered by the Williamsport Technical Institute (predecessor of Penn College) in 1941 as an architectural drafting program to assist with the war effort. It has continually grown and been updated over the years by the faculty and advisory board. The two-year Associates degree was the only degree offered until 2009, with the inception of the Bachelors of Science (BS) degree in Building Science and Sustainable Design. The program has always balanced technical proficiency with architectural theory and the four-year degree allowed for an additional emphasis on sustainability. The current BS degree (renamed "Architecture and Sustainable Design") was updated to make it possible for graduates to go through accredited Master of Architecture (M. Arch.) programs in 2-3 years, as about 20% of the graduates were applying to M. Arch. programs.

From the beginning, the various iterations of the architecture program have all required on-campus instruction emphasizing experiential opportunities that integrate the inspirational with the creative while focusing on real-world application. The new B. Arch. program (designated as ARC) is a face-to-face, on campus degree, but it does include four courses that are taught in a remote or hybrid format.

In the mid 1990's, total enrollment in the two-year associate degree was approximately 85 or 90 students. This number grew steadily to 136 in 2007 and jumped to 164 during the first two years of the four-year degree. With this increase in enrollment, the full-time architecture faculty grew to six, with the newest hire having been with the program for 12 years.

As of the spring semester of 2022, the Architecture department was offering the following two degree programs:

- The two-year Associate of Applied Science in Architecture (AX)
- The four-year Bachelor of Science in Architecture and Sustainable Design (ASD)

The overall enrollment in the department has fallen back to around 105. This diminishing enrollment level was not unique to the architecture programs, or to Penn College as a whole (which saw a similar decrease). Enrollment levels have been falling among Pennsylvania colleges and universities for ten years due to changes in demographics and smaller overall numbers of high school graduates.

Graduates from our existing architecture programs are in high demand. With our "hands-on" focus emphasizing the tools and technology used in industry (including AutoCAD, Revit, Photoshop, Lumion, and various energy analysis programs), our graduates enter the workforce with the ability to be productive team members from day one. They have a strong foundation in building fundamentals, technology, sustainability, and design. We frequently hear from employers who tell us that they seek out our graduates for this reason. We intend to carry this same "hands-on" focus into the new Bachelor of Architecture degree.

## The Development of the Bachelor of Architecture Program

During the late spring of 2021, the architecture faculty held a series of meetings with the new Assistant Dean for Engineering Technologies, Ellyn Lester, in which the faculty shared certain long-term goals. As a result of these meetings, and additional meetings between Assistant Dean

Lester and the administration, it was determined that the Architecture department would seek the required approvals to pursue an NAAB accredited Bachelor of Architecture degree.

### PURPOSE ITEM G: Development of the B. Arch. Curriculum

The curriculum for the Bachelor of Architecture degree was developed during the summer and fall of 2021. The program evolved from our current Architecture and Sustainable Design (ASD) Bachelor of Science degree. Changes to the ASD degree had recently been made to enable graduates enrolling in M. Arch. programs to be placed in the 2 or 3 year (shortened time-frame) track at various graduate programs. The first year courses (which are identical to the first year of the AX and ASD programs) are being offered in the fall of 2022. The fifth year courses will be offered for the first time in the fall of 2026. Most of the existing courses in the first four years will continue to be taught by the faculty who taught them in recent years.

Two new courses were developed and added to the existing four-year sequence of the ASD program (a second structures course and a course in architectural theory). An additional three architecture courses have been created for the new fifth year including two six credit thesis design studios and a three-credit course in professional practice. The new Bachelor of Architecture degree is designated by Penn College as the ARC program. More detail on the curriculum development process can be found in Section 5.3.

### PURPOSE ITEM B: Institutional Approval of the B. Arch. Curriculum and Program

The process for creating this new program at Penn College required approval from three administrative bodies. A proposal for the B. Arch. was presented to and approved by the Dean's Council in October of 2021 (at which point the development of the curriculum was already well under way). The completed curriculum was subsequently approved by the Curriculum Committee in December of 2021. Since a Bachelor of Architecture degree had not previously been offered at Penn College, approval was required from the college's board of directors. This approval was obtained on February 3, 2022.

### PURPOSE ITEMS C & E: Recruitment and Enrollment of the first Cohort

Under normal circumstances, the first cohort of a new program wouldn't enroll and begin classes until at least a year after the program obtained the required approvals. During this year, marketing would be conducted to ensure that a sufficient level of enrollment would occur. For the ARC program this would have meant a startup date of fall 2023. But since the college was already enrolling students in the existing Bachelor of Science degree in Architecture and Sustainable Design (the ASD), and since the first three years of the ASD are identical to the new ARC degree, the faculty made an effort to convince the administration that the ARC degree should be offered with a fall 2022 startup date. This effort ultimately proved successful, and the announcement was made midway through the spring 2022 semester that the college would begin the new Bachelor of Architecture degree in the fall of 2022. A marketing effort to recruit students to the new program began during the spring. Letters announcing the program were sent to all prospective students and those already in the admissions pipeline. Additionally, each received an invitation to a webinar addressing the new program that was developed by the department chair, Geoff Campbell, and Asst. Dean Lester, in conjunction with a senior in the ASD program. The new program has also been featured at all Open Houses and tours, with an accompanying individualized brochure developed specifically for the program.

As of July 31, 2022, the new or transfer student enrollment in the three Architecture department programs was as follows:

| Program | Enrollment |
|---|---|
| **AX** (A.A.S.) | **4** |
| **ASD** (B.S.) | **27** |
| **ARC** (B. Arch.) | **6** |

Note that at that time the number of new students enrolled in the ARC (B. Arch.) program was six. By the time the ARC program was added to the fall schedule, there were already 15 students enrolled in the ASD program. We expect that over the course of the next couple of years, many of the students starting the ASD program in the fall of 2022 will switch over to the ARC program. The first three years of these two programs are identical (the programs share the same classes), so students won't lose any time or be penalized in any way for switching in this fashion. In our experience, it takes some time for the enrollment of a new degree offering to overtake the previously existing degree(s). When we started the four-year architecture degree, enrollment in the two-year degree was still strong. Over time, the majority of new incoming students have chosen the four-year degree over the two-year by a wide margin. We expect that the same thing will happen with the four and five year degrees, and that over time the majority of incoming bachelor degree students will enroll in the ARC program. We also expect that due to this switchover from the ASD program, there will be a healthy number of students graduating with the first cohort of the ARC. The enrollment figures shown above don't include students who started in our programs in spring 2022. These students are also enrolled in the first semester courses. The total enrollment in the first semester courses is currently at 45. Some students who enrolled prior to fall 2022 have already switched from ASD to ARC, bringing the current total ARC enrollment to 9.

**PURPOSE ITEM F: The Awarding of Degrees to the first Cohort**
Per the timeline shown in PART TWO of this document, the first ARC cohort will graduate in May of 2027. If the college is successful in obtaining NAAB accreditation in the spring of 2028, this accreditation will be retroactive to January 1, 2027. A degree earned by a member of the first graduating class (from May of 2027) would therefore be considered an NAAB accredited degree.

**PURPOSE ITEM I: Alternative Plans if the Program doesn't achieve Initial Candidacy or Accreditation**

We have every expectation that we will be able to achieve initial candidacy and ultimately become NAAB accredited. If however, conditions should arise to prevent that outcome, students who were enrolled in the five-year B. Arch. (ARC) degree would still be able to graduate with our four-year Bachelor of Science in Architecture and Sustainable Design (ASD) degree. Similarly, if there are individual students who are either unable to complete the ARC degree, or who decide not to do so, they could choose to graduate with either the two-year AX degree or the four-year ASD degree, or both (for those who pursue dual enrollment).

The program's role in and relationship to its academic context and university community, including how the program benefits–and benefits from–its institutional setting and how the program as a unit and/or its individual faculty members participate in university-wide initiatives and the university's academic plan. Also describe how the program, as a unit, develops multidisciplinary relationships and leverages unique opportunities in the institution and the community.

**Program Response:**

Penn College's focus on technological and STEM education benefits the department's programs in many ways.

1. Students can enroll in unique, multidisciplinary electives such as BCT103 Construction Hand and Power Tools; BCT 104 Construction Safety & Equipment, and CCM 140 Woodworking – Art, Craft & Design.
2. Real world opportunities to interact with heavy machinery – Heavy Construction Equipment Technology on our affiliated campus.

Faculty have recently been involved in university-wide initiatives:

1. Rob Wozniak played a role in the Economic Adjustment Assistance grant from the Economic Development Administration.
2. Naim Jabbour took a leadership role in establishing the National Science Foundation Built Environment (BE) Scholars S-STEM Program.
3. Tuna Saka served on the Curriculum Committee (2018-2021) and on the Academic Standards and Issues Governance Committee (2014-2018).
4. Geoff Campbell has served on several committees including the Core Education Review Committee that reviewed the Colleges' general education requirements, and the Curriculum Committee.
5. Dorothy Gerring has been selected to serve as an instructor for the American Institute of Architects' (AIAU) inaugural U.S. Department of Energy Solar Decathlon® Professionals Practicum program, which began in summer 2022.

Faculty are also involved in the wider community, locally, regionally and nationally. For example:

1. Rob Wozniak serves on the Williamsport's Historic Architectural Review Board,
2. Dorothy Gerring is just stepping down after six years of service to the Pennsylvania Higher Education Department (PAHE).
3. Naim Jabbour served as USGBC Students National Chair (2011-2015).
4. Ellyn Lester served as a juror for the 2022 National Association of Women in Construction's International Project Excellence Awards.

The architecture faculty are also becoming involved in an upcoming multidisciplinary project with the Greater Lycoming Habitat for Humanity. Although numerous faculty across the campus have been involved with Habitat previously, including adjunct faculty member David Daneker - who served as a past president and board member for more than a decade – this project is unique. It provides an opportunity for many departments to work together on a new home that will be designed and constructed entirely by the College's students, faculty and staff.

The ways in which the program encourages students and faculty to learn both inside and outside the classroom through individual and collective opportunities (e.g., field trips, participation in professional societies and organizations, honor societies, and other program-specific or campus-wide and community-wide activities).

**Program Response:**

Field trips are a significant part of several courses in the Architecture department. Students tour architect's offices and construction sites in ACH101 "Introduction to Architecture". Many field trips have been arranged in various building materials courses and others. Design studios occasionally include field trips to buildings related to the current studio projects, as was done recently with a trip to a local bank, a middle school, and a UPS facility.

Some highlights of extracurricular programming offered over the years include the annual Green Building Fair from 2001-2004, which showcased sustainable products, speakers and hands-on

workshops. The biennial Alumni day, which began in 2017 and will take place again this year, brings back alumni in a round-table format to showcase their career path and projects.

Student teams have recently participated in the U.S. Department of Energy's Solar Decathlon Design Challenge. A team from PCT was chosen as one of four grand prize winner finalists in the second Race to Zero Student Competition in 2015. In some years the DOE competition has been incorporated into an upper-level studio. In the spring of 2022, a team of Penn College students advanced to the finals of the Office Building Design competition. As such, the team traveled to Golden, Colorado to compete and had an unforgettable experience. Students have also designed projects for local charities and organizations. Seniors graduating from the ASD program have had their work showcased at The Gallery at Penn College for the past four years.

Architecture students have used their design studio projects to help the College with on-campus projects. Examples include the Victorian House (constructed at the center of campus), the Dr. Welch Maker Space, the Fish Real Estate Leadership Challenge Course, and the sign for the Larry A. Ward Machining Technologies Center. The architecture club at the College has existed since the mid-1960s and the architectural program began offering international travel opportunities to students in the early 1990s. Currently, students have a choice of two "Global Experience" courses focusing on the Architecture of various European locations and including a two-week trip to various cities at the beginning of summer.

## Summary Statement of 1 – Context and Mission

*This paragraph will be included in the VTR; limit to maximum 250 words*.

**Program Response:**

Pennsylvania College of Technology, a public institution located in north central Pennsylvania, offers certificates, associate's, bachelor's, and master's degrees, in more than 100 majors, emphasizing hands on learning and applied technologies.

The Architecture program has a long history at the College. Beginning in 1941 to assist in the war effort, the program transitioned to an associate degree in the mid-1960s. After more than forty years with the associate degree, a B.S. degree was added in 2009. Perhaps the best indication of the Architecture department's mission and identity can be found in the description of our new B. Arch. (ARC) program shown below.

The five-year professional Bachelor of Architecture (B. Arch.) is intended for those who wish to pursue a career as a practicing architect. The program focuses on four main areas: building fundamentals, design, technology, and sustainability. The B. Arch. offers students an in-depth engagement in the fields of architecture and sustainability, augmented by the broader Penn College mission of applied technical innovation and hands-on learning. This major promotes a healthier, more energy efficient way to build, which reduces negative environmental impacts and slows the depletion of natural resources. Students study sustainable approaches to materials, construction, site design, building design, community planning, and the generation and conservation of energy. In addition, students receive training in building science fundamentals and are introduced to historic preservation and the renovation and reuse of existing buildings. Graduates should be equipped with the knowledge to design buildings that make positive contributions to their communities.

## 3—Program and Student Criteria

These criteria seek to evaluate the outcomes of architecture programs and student work within their unique institutional, regional, national, international, and professional contexts, while encouraging innovative approaches to architecture education and professional preparation.

**Program Response:**

Two charts are provided below which map the various courses in the ARC program to the Shared Values, Program Criteria, and Student Criteria that they address. The first chart covers the ACH and GLB courses which occur in the first two years of the program (as well as in the AX and ASD programs). The second chart covers the BSD courses found in the final three years of the ARC program. This portion of the APR template will be further developed for later APR submissions.

| Shared Values, Program Criteria and Student Criteria | ACH101 | ACH111 | ACH112 | ACH119 | ACH139 | ACH129 | ACH135 | ACH141 | ACH181 | ACH211 | ACH239 | ACH240 | ACH243 | ACH253 | ACH258 | ACH261 | ACH262 | ACH264 | GLB270 | GLB271 | ACH272 | ACH281 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Semester | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 3 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| Design | | | X | | | | | | X | | | X | | X | X | X | | | | | X | X |
| Environmental Stewardship and Professional Responsibility | | | | X | | X | | X | | | | X | | | | X | X | | X | X | X | X |
| Equity, Diversity, and Inclusion | | | X | | | | | X | | | | | | | | X | | | | | X | X |
| Knowledge and Innovation | | X | | X | X | X | X | X | | X | X | | X | | | | | X | | | X | X |
| Leadership, Collaboration and Community Engagement | X | | | X | | X | | X | X | | | X | | | | X | | | | | | X |
| Lifelong Learning | X | | | | | | X | | | | | | X | X | | | | | X | X | | |
| PC.1 Career Paths | X | X | | | X | | X | X | X | X | X | X | X | | | X | | X | | | | X |
| PC.2 Design | | | X | | | | | | X | | | | X | X | X | X | | | | | X | X |
| PC.3 Ecological Knowledge and Responsibility | | | | X | | X | | | | | | X | | | | | X | | X | X | X | X |
| PC.4 History and Theory | | | X | | | | | | | | | | | | | | | | X | X | X | |
| PC.5 Research and Innovation | | | | X | | X | | | | | | X | | | | | | X | | | | |
| PC.6 Leadership and Collaboration | | | | | | | | X | | | | X | | | | | | | | | | X |
| PC.7 Learning and Teaching Culture | | | | | | | | | | | | | | X | | | | | | | | |
| PC.8 Social Equity and Inclusion | | | X | | | | | X | | | | | | | | X | | | | X | X | |
| SC.1 Health, Safety, and Welfare in the Built Environment | | | | | X | | | X | | | X | | X | X | | X | X | | | | X | X |
| SC.2 Professional Practice | X | | | | | | | X | | | | | | | | | | | | | | X |
| SC.3 Regulatory Context | | | | X | X | X | | X | | | X | | X | | | X | | | | | | X |
| SC.4 Technical Knowledge | | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | | | X | X |
| SC.5 Design Synthesis | | | | | | | | X | X | | | | | | X | X | | | | | | X |
| SC.6 Building Integration | | | | | X | | X | | X | X | X | X | | X | | X | X | | | | | X |

*FIG. 3.1 Mapping of ACH and GLB Courses to Shared Values, Program Criteria, and Student Criteria*

| Shared Values, Program Criteria and Student Criteria | BSD322 | BSD332 | BSD352 | BSD340 | BSD400 | BSD410 | BSD420 | BSD432 | BSD450 | BSD442 | BSD452 | BSD472 | BSD482 | BSD492 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Semester | 6 | 5 | 6 | 5 | * | 5 | 7 | 7 | 8 | 7 | 8 | 9 | 10 | 10 |
| Design | X | X | X | X | | | X | X | | X | X | X | | X |
| Environmental Stewardship and Professional Responsibility | X | X | X | | X | X | X | X | X | | X | X | X | X |
| Equity, Diversity, and Inclusion | X | | | | X | | | X | | | | | X | |
| Knowledge and Innovation | | X | X | | X | | X | X | | | X | X | X | X |
| Leadership, Collaboration and Community Engagement | X | | | | X | X | | X | X | | | | X | |
| Lifelong Learning | X | | | X | X | | | | | | | | X | |
| PC.1 Career Paths | | | | X | X | X | X | | X | | X | | X | |
| PC.2 Design | X | X | X | | | | X | X | | | X | X | | X |
| PC.3 Ecological Knowledge and Responsibility | X | X | X | | | X | X | X | X | | X | | | |
| PC.4 History and Theory | | | | | | X | | | | X | X | X | | X |
| PC.5 Research and Innovation | | X | X | X | | | X | | | | X | X | | X |
| PC.6 Leadership and Collaboration | X | | | | X | X | | X | X | | | | X | |
| PC.7 Learning and Teaching Culture | X | | | | | | X | X | | | | | X | |
| PC.8 Social Equity and Inclusion | X | | X | | | | | X | | X | | | X | |
| SC.1 Health, Safety, and Welfare in the Built Environment | X | X | X | | | | X | X | | | X | X | X | X |
| SC.2 Professional Practice | | X | X | | X | | | | | | X | X | X | X |
| SC.3 Regulatory Context | | X | X | | | X | X | X | | | X | X | | X |
| SC.4 Technical Knowledge | X | X | X | X | X | X | X | X | X | | X | X | X | X |
| SC.5 Design Synthesis | X | X | X | X | X | | X | X | | X | X | X | | X |
| SC.6 Building Integration | | X | X | X | X | X | | X | X | | X | X | | X |

*FIG. 3.2 Mapping of BSD Courses to Shared Values, Program Criteria, and Student Criteria*

# 4—Curricular Framework

This condition addresses the institution's regional accreditation and the program's degree nomenclature, credit-hour and curricular requirements, and the process used to evaluate student preparatory work.

## 4.1 Institutional Accreditation

The APR must include a copy of the most recent letter from the regional accrediting commission/agency regarding the institution's term of accreditation.

**Program Response:**

A copy of the Middle States Statement of Accreditation Status (SAS) occurs on page iii of this document. It can also be found on the web at: https://www.msche.org/institution/0581/

# 5—Resources

## 5.2 Planning and Assessment

The program must demonstrate that it has a planning process for continuous improvement that identifies:

**5.2.1** The program's multiyear strategic objectives, including the requirement to meet the NAAB Conditions, as part of the larger institutional strategic planning and assessment efforts.

The Penn College 2022-2026 Strategic Plan includes specific goals and initiatives which are listed in Section 1 "Context and Mission".

Progress toward the strategic goals established in the previous plan (2018-2022) are outlined in the following document: https://www.pct.edu/sites/default/files/2021-12/Strategic-Plan-Updates.pdf

The Architecture department has a multi-year strategic plan in alignment with the College's strategic plan. The current 2022-2026 Architecture department goals are as follows:

1. Make progress toward meeting the 2020 NAAB Conditions of Accreditation for the department's B. Arch. (ARC) degree.
2. Obtain additional Architecture department dedicated space.
3. Expand our Advisory Committee.
4. Obtain a 3D Scanner.
5. Develop a department policy on equity/inclusion and respect for diversity.
6. Establish a Learning and Teaching Culture Policy.
7. Establish a Mission Statement for the department.
8. Explore the possibility of adding Architecture micro-credentials or "badges" in the areas of BIM, Sustainability, and others to serve the AEC industry and community.
9. Explore the possibility of developing a campus-wide "Immersion" sequence of elective courses focused on sustainability in conjunction with other programs/departments.
10. Continue with our recent marketing efforts.

**5.2.2** Key performance indicators used by the unit and the institution

## Program Response:

In a similar fashion to the use of “Success Indicators” in the College’s strategic plan (shown in the “Strategic-Plan-Updates” link above), the Architecture department has established the following “Success Indicators” for its own strategic plan:

Success Indicator 1.1
Establish NAAB “eligibility” and “candidacy” status by the summer of 2024.

Success Indicator 2.1
Increase the Architecture department’s dedicated space by 50% by 2025.

Success Indicator 3.1
Grow the membership of the Advisory Board to 9 members (from the current number of six) by 2025.

Success Indicator 4.1
Success is indicated by the purchase of the scanner by 2026.

Success Indicator 5.1
Develop an Equity/Inclusion and Respect for Diversity Policy by the beginning of the fall 2023 semester.

Success Indicator 6.1
Develop a Learning and Teaching Culture Policy by the beginning of the fall 2023 semester.

Success Indicator 7.1
Develop an Architecture department Mission Statement by the beginning of the fall 2023 semester.

Success Indicator 8.1
The college recently added a strategic goal related to “badging” and micro-credentials. The department will determine whether or not to pursue “badging” during the fall 2022 semester and will implement any chosen badges by the fall of 2023 (assuming that this timeline corresponds with the timeline of the College). There are currently no badges that have yet been developed at the College.

Success Indicator 9.1
The college recently approved the concept of Immersion areas in which students can take elective courses in areas of study across various programs and departments. The Architecture department will determine whether or not to pursue an Immersion related to sustainability during the fall 2022 semester and will work with others to implement the Immersion by the fall of 2023.

Success Indicator 10.1
Continue with the established marketing efforts each year including emails and mailings to the internally developed mailing list.

**5.2.3** How well the program is progressing toward its mission and stated multiyear objectives.

Program Response:

As of July 2022, some progress has been made on the following strategic plan goals:

Goal 1

The B. Arch. program was approved and the first cohort is now enrolling for a fall 2022 start. The department is generating the NAAB eligibility application and will submit it by July 31, 2022.

Goal 2

Planning is under way for the Architecture department to relocate to the fourth floor of the ACC Building. The current expectation is that the majority of the Architecture department courses will take place in the ACC building beginning during the fall of 2023.

Goal 4

Formal requests for a scanner have been accepted and submitted from the assistant dean and dean of the School of Engineering Technologies to the Dean of Academic Operations as the School of Engineering Technologies' first priority on the Master Equipment List for the 2022-2023 academic year.

Goal 5

As a precursor to the development of an Equity/Inclusion and Respect for Diversity Policy, the College hired a special assistant to the president who is charged with assisting the schools, divisions and departments with this important document.

**5.2.5** Ongoing outside input from others, including practitioners.

**Program Response:**

The Architecture Advisory Committee meets twice each year. Last year the Advisory Committee provided support and input regarding the proposed B. Arch. curriculum and the potential NAAB accreditation. The board consists of six representatives from industry – four local architects, a construction manager for a healthcare company, and an executive from a furniture manufacturing company. One of our current goals is to expand the advisory board, and to improve the diversity of the board while doing so.

The Career Fairs at PCT have provided informal feedback from regional architecture firms. One firm last year said they started coming to our recruiting events when they realized that our graduates were able to be productive sooner than the graduates from other "private universities". Our graduates have extensive experience with industry software tools, such as Revit, which make them competitive candidates for industry positions.

The Graduate Survey Report explores educational and career outcomes and satisfaction with student services and program instruction. Until the end of 2010-11 academic year, this was an annual survey commencing five months after the close of the spring semester. Beginning summer 2011, graduates are now surveyed term-by-term continuously, six months after the conclusion of their graduating semester.

In the past, the Architecture department has conducted surveys of regional architecture firms to help guide changes to the curriculum. As an example of this, the department queried firms to determine which CAD and/or BIM programs were being utilized. That survey determined that while the trend is towards BIM (with Revit the leading BIM software employed), there

were still a significant number of firms using CAD (and specifically AutoCAD). For this reason, we still teach both AutoCAD and Revit in our program.

## 5.4 Human Resources and Human Resource Development

The program must demonstrate that it has appropriate and adequately funded human resources to support student learning and achievement. Human resources include full- and part-time instructional faculty, administrative leadership, and technical, administrative, and other support staff. The program must:

**5.4.1** Demonstrate that it balances the workloads of all faculty in a way that promotes student and faculty achievement.

Program Response:

Penn College has employed six full-time faculty members in the Architecture department for the past 15 years. In that time, the program has ranged from approximately 95 students to as many as 164. Last year there were 105 students enrolled in Architecture department programs. With the addition of the new ARC program, and the new fifth year of courses, the department expects that we will need to hire at least one additional faculty member. This new hire will need to be hired sometime before the fall of 2026 (when fifth year courses are taught for the first time).

For the past ten years or so, the department has employed only one adjunct faculty member. This adjunct member has primarily taught the Construction Documents – Commercial course (ACH239), but has occasionally covered others courses. Whenever a course is offered to an adjunct, full-time faculty can elect to teach the course instead, as long as their overall loads are not excessive and they are well qualified to teach the course. One reason why we haven't utilized adjuncts in larger numbers is that the full-time faculty have often elected to take on the course in question as an overload. There are many prospective adjuncts in our region should the need arise to grow the adjunct pool.

## 5.5 Social Equity, Diversity, and Inclusion

The program must demonstrate its commitment to diversity and inclusion among current and prospective faculty, staff, and students. The program must:

**5.5.2** Describe its plan for maintaining or increasing the diversity of its faculty and staff since the last accreditation cycle, how it has implemented the plan, and what it intends to do during the next accreditation cycle. Also, compare the program's faculty and staff demographics with that of the program's students and other benchmarks the program deems relevant.

**Program Response:**

There were 105 students enrolled in the spring 2022 semester. Of these 85 (or 81%) self-identified as White, 10 (or 9.5%) as Hispanic, 6 (or 5.7%) as Black, and 4 (or 3.8%) as Multiple. This amounts to 19% non-White.

There are 29 female students. This results in a total of 27.6% female, and 72.4% male.

There are five male and one female faculty members among the full-time faculty in the Architecture department (16.7% female). There is also one male and one female adjunct faculty (including our Assistant Dean Ellyn Lester who will be teaching the Professional Practice course for the department when this course is first offered). She also serves as a source of support to all students within the program, organizes professional presentations, and supports the department's special initiatives. When considering both full-time and adjunct faculty, the percentage of female faculty (at 25%) comes close to matching the percentage of female students. Among the full- and part-time faculty all self-identified as White.

It is clear from the data above that the percentage of non-White representation in the faculty does not occur at the level found among the student population. In the coming years, some current faculty members are expected to retire. When this happens, the department will conduct a new faculty search. At that point a concerted effort will be made to address this discrepancy and increase the diversity of the faculty.

## 5.6 Physical Resources

The program must describe its physical resources and demonstrate how they safely and equitably support the program's pedagogical approach and student and faculty achievement. Physical resources include but are not limited to the following:

**5.6.1** Space to support and encourage studio-based learning.

**Program Response:**.

The image below shows the current LEC building spaces used by the Architecture department, including studios (brown with red outline), classrooms (grey and purple with red outline) and offices (tan with green outline). The department has been using these classrooms for the last 25 years, and will continue to do so until fall 2023 when we are scheduled to relocate to the ACC building.


*Fig. 5.6.1 Existing Studios, Classrooms, and Faculty Offices in the LEC Building.*

30 years ago, the architecture program at what was then Williamsport Area Community College (or WACC) had sufficient space to provide each student with a dedicated design studio workspace. Since that time we have lost some of this space and currently utilize two large classrooms as our design studios. These rooms in the Lifelong Education Center (LEC rooms B2015 and B2017) are shown in the drawing below.

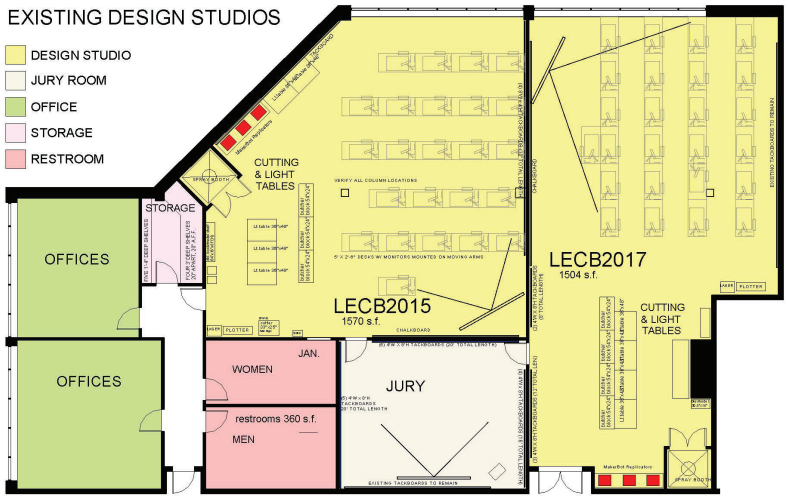



*Fig. 5.6.2 Existing Design Studios and Service Spaces in the Lifelong Education Center (LEC) Building.*

When we started the four-year architecture program in 2009, we added design studios in each of the four semesters in the third and fourth year. This increased emphasis on design and increased use of the existing studios, has made it clear that we would benefit from additional design studio spaces. Ideally we would like to have dedicated workstations for all students in our programs (from the 1st year through the 5th year).

In recent years the Architecture department has requested additional space to accommodate this need. The administration is now supporting this request, and we are currently planning to move the Architecture department from the LEC building to the fourth floor of the Klump Academic Center (ACC) building. The ACC 4th floor currently consists of several typical classroom spaces. There are no computers in these classrooms aside from the instructor's stations. The work involved in this move will be completed prior to the start of the fall 2023 semester. All Architecture program courses will be scheduled in the ACC building beginning in fall 2023. This move includes the following renovation related work:

- Rescheduling of fall 2022 and spring 2023 classes which had previously been scheduled for the ACC 4th floor.
- Networking of five design studios (ACC403, ACC409, ACC410, ACC412, and ACC414) and two computer classrooms (ACC401 and ACC405).
- Relocation of existing computers from LECB2015 and LECB2017.
- Relocation of existing department equipment including the laser cutter, five Makerbots, plotters, laser printers, etc.
- Addition of through roof exhaust system for laser cutter and spray booth.
- Addition of card swipe access systems to enable access to design studios outside of scheduled class times (evenings and weekends).

The plan shown on the next page depicts enlarged studio spaces which will require demolition of existing walls. The total number of design studio workstations is increasing from the current 50 to 168. This new configuration increases the department's dedicated space significantly and will allow for dedicated workspaces for each student in the program.

The college is in full support of this move and has committed the necessary funding to see it through.


*Fig. 5.6.3 Plan of the Architecture Department Relocation to the 4th Floor of the ACC with a capacity of 168 in the design studios.*

**5.6.2** Space to support and encourage didactic and interactive learning, including lecture halls, seminar spaces, small group study rooms, labs, shops, and equipment.

**Program Response:**

In addition to the two current design studios (LECB2015 and LECB2017), the architecture program primarily utilizes five additional classroom spaces. These existing spaces are described below:

Existing Computer Rooms – LECB2108, LECB2110, LECB2118
Each of these rooms is configured with 24 computer stations for students with one additional computer for the instructor. These classrooms are networked and are running the Windows 11 operating system. Each room has a black- or white-board, a ceiling mounted projector, and a screen. These rooms are not used exclusively by the Architecture department. They are shared with other departments in the Engineering Technologies Division.

Proposed Computer Rooms – ACC401 and ACC405
The capacities of these rooms will be 21 student stations in ACC401 and 23 in ACC405. They will be networked with Windows 11 and will have black- or white-boards, ceiling mounted projectors and screens. These two rooms, and all others on the 4th floor of the ACC building will be dedicated to the Architecture department (not shared with others).

Existing Classrooms – LECB2109 and LECB2044
"Classrooms" in this case refers to typical lecture rooms with individual student desks. There is a single computer which is placed at the instructor's station or lectern. Each classroom is equipped with a black- or white-board, a table mounted camera, and a projector with a screen. Classroom capacity is these rooms is 23 in LECB2109 and 30 in LECB2044. LECB2044 is "standard" lecture classroom. LECB2109 is equipped with large drafting tables with parallel bars. The Construction Technologies Department still teaches a 3-credit hand drafting course for which they utilize this room. The Architecture department faculty also use this room in the following ways:

- Building Materials examples are stored in the back of LECB2109 and the Building Materials courses are often taught in this room.
- Students in some sections of the Architectural Graphics course (ACH111) are introduced to parallel bar drafting in this space.

Proposed Classrooms – ACC407, ACC416 and ACC419
These are typical lecture style classrooms with individual student desks, a black- or white-board, an instructor's lectern with a computer and table mounted camera, and a projector and screen. Capacities are as follows:

- ACC407 - 18 Desks
- ACC416 - 20 Desks
- ACC419 - 20 Desks

## 5.7 Financial Resources

The program must demonstrate that it has the appropriate institutional support and financial resources to support student learning and achievement during the next term of accreditation.

**Program Response:**

Financial Operations supports the college's mission by providing fiscal stewardship to the entire college community. As such, they mitigate financial risk while maintaining clear processes that ensure the timely preparation of each fiscal year's budget — reflecting the current strategic plan and annual assessments, while considering each department's short and long-term goals and current enrollment trends — which results in a concerted effort to provide for the future through proper planning and resource management.

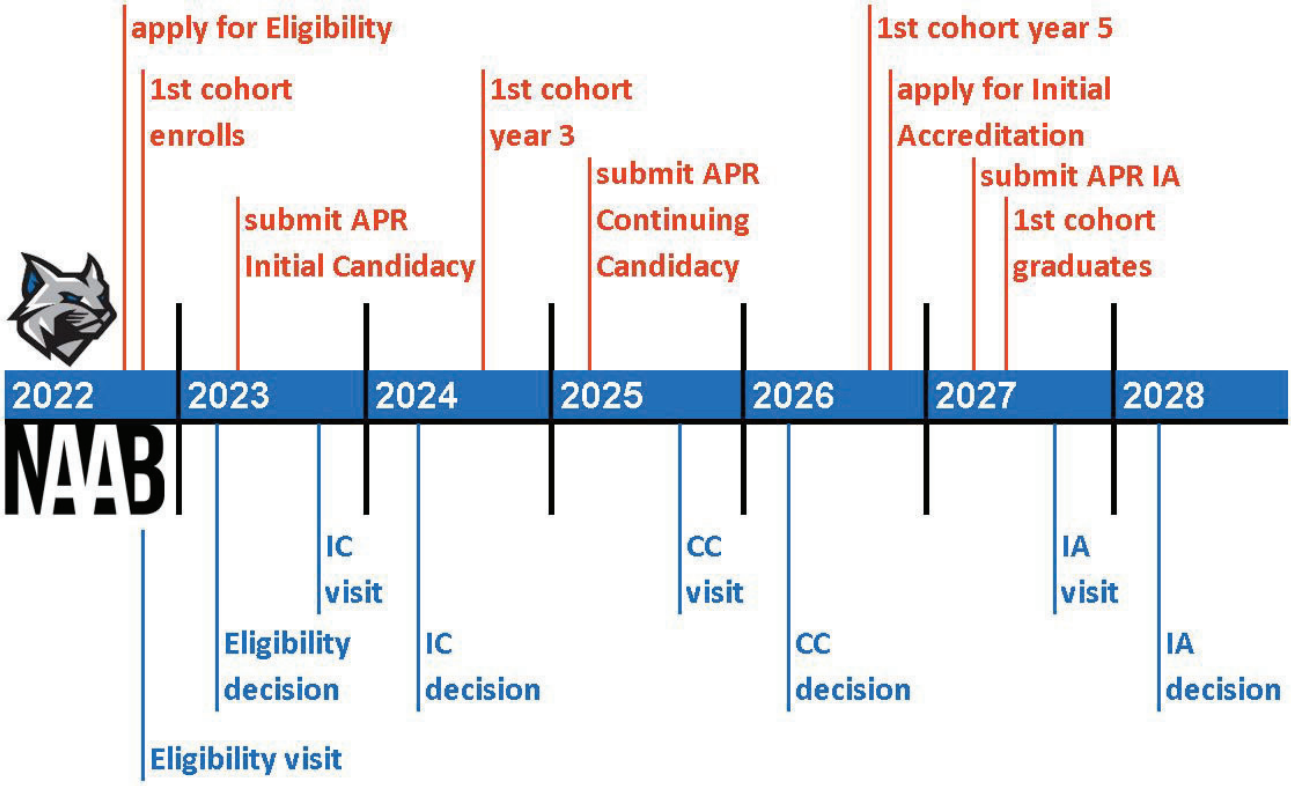
The process begins in November when cost center administrators, in this case the Assistant Dean of Construction and Architectural Technology, meet with department directors to discuss the department's strategic goals and accompanying budgetary needs for the upcoming fiscal year. The needs for each goal are then distributed into the appropriate category: staffing, capital equipment, instructional and non-instructional supplies, information technology, duplicating and printing, memberships, professional development and accreditations, travel (faculty and student), etc. There are also line items in the budget that address unexpected issues, i.e. Preventative Maintenance and Equipment Repairs. Afterward, each department's budgetary needs are compiled into one division budget, which is discussed with the Dean of Engineering Technology and the Dean of Academic Operations and moved forward for final approval by the President's Council, and ultimately the Board of Directors. At each stage, the student's learning outcomes and achievements are at the forefront of the process.

Feedback from the student course evaluations, from alumni, and from the advisory committee indicate no issues regarding our physical space, equipment or information technology. As such, the current labs and jury space are fully functional and provide the instruction defined in our course abstracts, syllabi, and course learning outcomes.

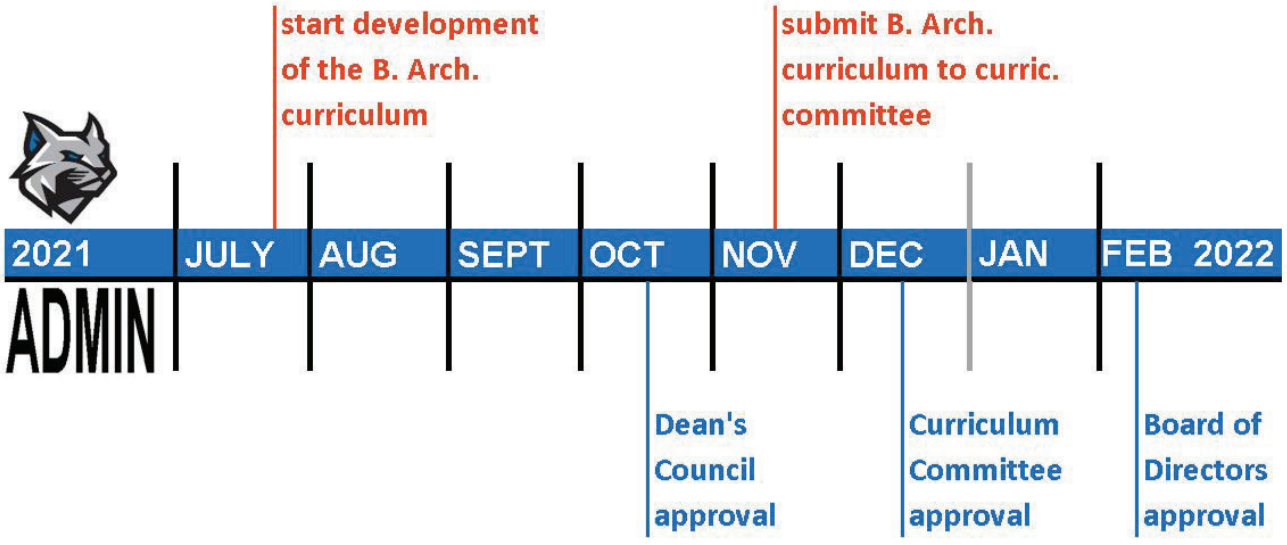
Even so, when unexpected opportunities arise, the college often supports them. For instance, during the spring 2022 semester a group of students advanced to the finals in the Office Division of the Solar Decathlon. While not originally part of the department's budget, the Assistant Dean submitted an application to the college's Student Organization Matching Fund Request, which was approved almost immediately and provided up to $5990 in additional funds for the student's registration fees, equipment needs, and travel expenses. Likewise, the opportunity to move the Architecture department to the ACC building was not formally requested or funded, but when the opportunity arose, the college supported the move and as of July 2022 was finalizing the renovation schedule and budget with an anticipated move in summer 2023.

PART TWO

## Timeline for Achieving Initial Accreditation




Timeline for Approval of B. Arch. Curriculum



| | |
|---|---|
| Summer/Fall 2021 | Develop B. Arch. Curriculum/Revise Existing A.A.S. and B.S. Programs |
| October 2021 | Submit Concept Proposal for B. Arch. Program to Dean's Council |
| October 2021 | Deans Council Approval |
| November 2021 | Submit Curriculum Documents to Curriculum Committee |
| December 2021 | Curriculum Committee Approval |
| February 2022 | Board of Director's Approval |

**Timeline for Achieving Initial Accreditation**

| | |
|---|---|
| July 2022: | NAAB Eligibility Application submitted |
| April 2022: | Begin planning for Architecture Dept. move to the ACC building |
| May '22 – Aug. '23 | Make Renovations to ACC building fourth floor prior to move |
| Fall 2022: | Expand advisory board |
| Fall 2022: | First Cohort Enrolls in B. Arch. |
| Fall 2022: | Eligibility visit (virtual) |
| Spring 2023: | Eligibility decision |
| March/April 2023: | APR-Initial Candidacy submitted |
| Fall 2023: | Begin teaching architecture courses in ACC building |
| Fall 2023: | Visit for Initial Candidacy |
| Spring 2024: | Initial Candidacy Decision (effective 1.1.23) |
| March 2025: | APR for Continuation of Candidacy Submitted |
| Fall 2025: | Visit for Continuation of Candidacy |
| March 2026: | Continuation of Candidacy Decision |
| September 2026: | Application for Initial Accreditation in 2027 |
| March 2027: | APR for Initial Accreditation submitted |
| May 2027: | First B. Arch. Cohort Graduates |
| Fall 2027: | Visit for Initial Accreditation |
| March 2028: | Initial Accreditation Decision (effective 1.1.27) |
| September 2029: | APR for Continuing Accreditation Due |
| Spring 2030: | Visit for 1st Term of Continuing Accreditation |
| July 2030: | Continuing Accreditation Decision |

## Appendix B: Course Descriptions

**ACH101, Introduction to Architecture**, 1 credit (1 hour lecture, 0 hours lab)
Overview of the architectural field. Emphasis on tours of architectural and construction-related businesses. Topics include career paths, educational opportunities, registration requirements, and the architect's responsibilities.

**ACH111, Architectural Graphics**, 3 credits (1 hour lecture, 6 hours lab)
Introduction to the various means by which architects have traditionally communicated and presented their buildings. Topics include basic drawing and sketching, model making, the use of computer software to generate and manipulate presentations, and creating an online professional electronic portfolio. Emphasis on composition, line quality, precision, and clarity of presentation. Introduction to the architectural jury.

**ACH112, Architectural History**, 3 credits (2 hours lecture, 3 hours lab)
A global overview of architectural history from prehistory to modern times. Identification of architecture styles by their cultural expression of belief systems within the religion and politics of the era. Emphasis on the built environment; attention also given to expression through art.

**ACH119, Building Materials l**, 3 credits (2 hours lecture, 3 hours lab)
Study of the history, development, and application of residential building materials. Designed to provide a solid background in the construction and detailing of residential building materials as well as an appreciation for the appropriate use of materials and the field of architecture.

**ACH129, Building Materials II**, 3 credits (2 hours lecture, 3 hours lab)
Study of the history, development, and application of commercial building materials. Designed to develop a solid background in the construction and detailing of commercial building materials as well as an appreciation for the appropriate use of materials.

**ACH135, Architectural Computer Aided Drafting**, 3 credits (2 hours lecture, 3 hours lab)
Introduction and practical application of Computer-Aided Drafting (CAD) techniques and standards used to create two-dimensional architectural drawings. Focus on hardware and software components, operating systems, file management, CAD commands, system variables, drawing setup, creation of lines and shapes, and the editing, saving, and printing of drawings, and the use of campus information technology resources. Advanced topics include external references, layouts, paper space, attributes, dimensioning, text, and the creation of a symbols library.

**ACH139, Construction Documents- Residential**, 3 credits (1 hour lecture, 6 hours lab)
Practical application of computer-aided drafting techniques and construction theory to prepare residential type working drawings. Course work includes developing a complete set of drawings based on wood construction, using CAD drafting standards, efficient database organization, drawing clarity, thoroughness, and attention to dimensioning, cross-referencing, and plotting.

**ACH141, Building Codes and Accessibility**, 2 credits (1.5 hours lecture, 1.5 hours lab)
Overview of zoning and building codes, with emphasis on energy performance and applicability of meeting health, safety and welfare requirements. Certification exams may be available. Some exams may be at the participants' expense.

**ACH181, Architectural Design Studio l**, 3 credits (1 hour lecture, 6 hours lab)
Design studio with an emphasis on basic design principles. Includes overview of principles and criteria used in the programming, analysis, and design phases for small- and medium-sized projects.

**ACH211, Architectural Graphics II**, 3 credits (2 hours lecture, 3 hours lab)
Practical application of Building Information Modeling (BIM) and 3D design software to produce three-dimensional designs, documentation drawings, and computer-generated renderings.

**ACH239, Construction Documents** - Commercial, 3 credits (1 hours lecture, 6 hours lab)
Theory and laboratory practice in the development of non-residential type construction documents. Emphasis on object-oriented CAD techniques, drafting standards, and theory of commercial construction in the preparation of drawings for a building incorporating masonry construction.

**ACH240, Environmental Systems**, 3 credits (2 hours lecture, 3 hours lab)
Theory and design of plumbing, heating, air conditioning, lighting, and electrical service systems for residential and commercial buildings. Includes CAD drawing techniques and standards in the development of related drawings.

**ACH243, Structural Principles**, 3 credits (3 hours lecture, 0 hours lab)
Overview of structural principles used in the design of buildings. Study includes the general concepts of static forces and the basic design of wood, masonry, and concrete materials. Some mathematical calculations required.

**ACH253, Structural Applications**, 3 credits (2 hours lecture, 3 hours lab)
Principles of developing, evaluating, and applying appropriate structural systems for multi-family and commercial buildings. Topics include material and form implications for grids, lateral load bearing capacity, and cost versus functionality; interaction of architectural design concept and structural system; adding and transferring gravity loads through entire structural system; and use of data to select and size structural elements.

**ACH258, 3D Modeling & Animation**, 3 credits (2 hours lecture, 3 hours lab)
Introduction to object-driven 3D animated rendering software. Practice includes using various methods to create 2D and 3D objects, manipulating objects, setting lighting conditions, creating materials, and animating a scene.

**ACH261, Architectural Design Studio ll**, 3 credits (2 hours lecture, 3 hours lab)
Design studio focusing on the principles used in the design of building sites. Topics include climate, topography, contour modification, pedestrian and vehicular movement patterns, legal constraints, economic factors, site drawings, site models, and site analysis. Includes development of site designs for small and medium-sized projects.

**ACH262, Sustainability: Building & Living Green**, 3 credits (2 hours lecture, 3 hours lab)
Overview of the concept of sustainability (holistic living and building design that integrates solar concepts, energy efficiency, and material ecology) and its economic, political, and environmental consequences. Lecture and hands-on application focus on sustainable building practices, including design, specification, construction, lifecycle issues, and sustainable building certification. Exploration of the historical basis for the ideology of sustainability, its applications in today's society, and the implications of choosing to live a green lifestyle

**ACH264, Computers & Estimating**, 3 credits (2 hours lecture, 3 hours lab)
Introduction to the techniques and methods used to estimate construction costs for residential and light commercial buildings. Topics include the utilization of various types of estimates used by the design and construction industry including interpretation of labor and materials cost data, and the use of worksheets and computer spreadsheets to prepare a final estimate for a project. Additional topics include professional presentation, the ethical and legal use of digital information, and the security implications of information use and storage.

**ACH272, History of Modern Architecture**, 3 credits (3 hours lecture, 0 hours lab)
Worldwide overview of modern architectural history from the mid-nineteenth century to the present. Topics include new processes and cultural phenomena that have occurred as a result of modernization. Emphasis on the influence of new technologies, building materials, globalization, environmentalism, and the economics of energy in shaping societies, environments, and architectural design.

**ACH281, Architectural Design Studio III**, 4 credits (2 hours lecture, 6 hours lab)
Design studio with an emphasis on the methodology involved in the design of non-residential buildings and the challenges they present to the environment. Investigation of the problems in creating exterior space. Emphasis on the practice of architectural detailing.

**BSD322, Sustainable Community Planning & Design**, 3 credits (2 hours lecture, 3 hours lab)
Theory and application of the development of sustainable sites at scales ranging from a small neighborhood, to a community or an urban plan. Emphasis on the integration between a site and the greater community. Course work includes development of site plans that incorporate sustainable concepts.

**BSD332, Architectural Design Studio IV**, 5 credits (2 hours lecture, 9 hours lab)
Design studio with an emphasis on passive design strategies employed to reduce the energy consumption and increase human comfort. Focus on small and medium-sized residential and commercial buildings. Topics include the importance of site and climate conditions, the use of the sun to provide heat and light to indoor environments, the use of natural ventilation, and the impact of passive strategies on building form.

**BSD340, Detailing & Applications**, 3 credits (2 hours lecture, 3 hours lab)
Buildings are complex relationships of materials and require appropriate detailing for appearance, durability and maintenance. Through drawing, designing, and constructing, students will apply material and performance knowledge to create appropriate detailing to meet code and high performance sustainable buildings

**BSD352, Architectural Design Studio V**, 5 credits (2 hours lecture, 9 hours lab)
Design studio with an emphasis on adaptive reuse. Focus on the design and representation of complex, medium-sized commercial projects in varied environmental settings which include existing buildings. Topics include the use of Building Information Modeling (BIM) as a design tool to evaluate overall building performance and energy usage. Coursework includes evaluation of existing buildings, design documentation, and development of BIM throughout the building's life cycle with an emphasis on the design phase.

**BSD400, Internship**, 3 credits (0 hours lecture, 15 hours lab)
Work experience intended to provide exposure to real-world building science and sustainable design practices. A detailed summative essay describing sustainable aspects of internship experience is required. Students must obtain written approval from Architectural Technology faculty for proposed Industry internships prior to the start of the internship. One semester duration with a 15-hour per week or 240 hour minimum.

**BSD410, Historic Preservation**, 3 credits (3 hours lecture, 0 hours lab)
Introduction to the concepts of preservation and adaptive re-use and their importance to sustainable design. Topics include historic materials, construction techniques, building systems, the economics of preservation, forensics, remediation practices, and a review of related legislation, government programs and resources.

**BSD420, Renewable Energy Technologies**, 3 credits (2 hours lecture, 3 hours lab)
Overview of renewable energy using sunlight, wind, tides, geothermal, biomass, and biofuels. Topics include the relative efficiencies and installation of various energy systems, and a review of public policies, incentives, and grants.

**BSD432, Architectural Design Studio VI**, 5 credits (2 hours lecture, 9 hours lab)
Design studio with emphasis on integrated design approach during all stages of planning and design in order to achieve high building performance. Emphasis on the establishment of benchmarks and the use of computer applications to evaluate the interaction of design decisions. Course work includes case studies of existing buildings and urban context as well as teamwork to design and evaluate medium to large commercial building projects, including structural and environmental systems.

**BSD442, Architectural Theory**, 3 credits (3 hours lecture, 0 hours lab)
Global introduction of architectural theories over time. Emphasis on the significance of design theories in architectural dialogue. Presentation of a chronological overview of various architectural theories and their impact on design discourse in the built environment, including sustainable frameworks. Coursework includes case studies and canonical readings of various architectural theories across time.

**BSD450, Sustainable Rating Systems**, 3 credits (3 hours lecture, 0 hours lab)
Examination of sustainable building rating systems used in the United States. Emphasis on compliance with U.S. Green Building Council's LEED certification program. A sustainable rating system certification exam may be included at the participant's expense.

**BSD452, Architectural Design Studio VII**, 5 credits (2 hours lecture, 9 hours lab)
Studio focusing on the knowledge and skills developed in all previous program courses. Emphasis placed on net-zero design, sustainable materials, energy efficiency, renewable energy technologies, sustainable rating systems, and the use of building information modeling to analyze, design, and document comprehensive sustainable building solutions. Includes all phases of development, up to final presentation and juried review.

**BSD472, Architectural Thesis Studio I**, 6 credits (3 hours lecture, 9 hours lab)
First of two-part fifth-year thesis studio sequence with emphasis on thesis research and definition. An in-depth analysis and exploration of architectural research methods and approaches in design. Includes evaluation and analysis of research papers, thesis projects, various research methodologies, and establishment of a robust design proposal with a comprehensive building program for the Architecture Thesis Studio.

**BSD482, Professional Practice**, 3 credits (3 hours lecture, 0 hours lab)
Advanced study of the professional aspects of running an architectural practice. Includes the responsibilities of the architect, client, and builder as well as ethical standards of behavior. Covers organization, marketing and management of design firms, and the regulations and legal issues which impact the business of architecture. Examines types of services, contracts, and the acquisition and completion of work, as well as the management of employees. Addresses current architectural registration requirements, registration renewal, and reciprocity.

**BSD492, Architectural Thesis Studio II**, 6 credits (3 hours lecture, 9 hours lab)
Second of two-part studio sequence focusing on thesis development and production and application of the knowledge and skills developed in all previous program courses, culminating in the completion of a comprehensive design thesis project. Course focuses on an integrated design process to achieve a holistic, contextual, and high-performance building design solution with emphasis on the integration of design process, theory, research, tectonics, structure, mechanical, and sustainable systems. Coursework includes research, planning, programming, performance modeling, and generation of a comprehensive design project.

**GLB270, European Sustainable Building, Historical Architecture and Art**, 3 credits (3 lecture, 0 lab)
Intense study of historic art and architecture and modern sustainable building practices in Europe. Emphasis on integrated design and community planning from an artistic, architectural and sustainable point of view and merging these three characteristics to provide a cultural statement. Topics include introduction to monumental building styles and art across the spectrum of European culture. Course work includes travel to select destinations in Europe with guided tours and lectures at buildings and museums.

**GLB271, Architecture Ideals, Urban Forms, and Artistic Aspirations**, 3 credits (3 hrs lecture, 0 hrs lab)
Study of art movements and their connection and influence on urban development. Examines urbanism through the lens of art, architecture, and sustainability. An interpretative look at the artistic and architectural patterns of settlement and urbanization that defines cities. Explores artistic connections between cities and urban life that are identified with global cultures. Introduces the city as an artistically meaningful form. Emphasis on artistic expression and evolution in cities. Focus on green cities and communities. Fosters a critical understanding of the cultural processes that influenced urban civilizations. Emphasis on the role of art and design movements in shaping urbanization, while introducing visual and analytic skills necessary for its interpretation. Course work encompasses the study of art, architecture and sustainable urbanism in global cities. Field work includes travel to select destinations with guided tours and presentations.

## Appendix C: Faculty Resumes

DANIEL L. BROOKS

Title: Instructor
School: School of Engineering Technologies
Department: Architecture and Sustainable Design

COURSES TAUGHT (Most recent four semesters)
ACH101, ACH111, ACH119, ACH129, ACH181, ACH261, ACH272, BSD497

EDUCATIONAL CREDENTIALS

| | |
|---|---|
| LEED Green Associate | 2019 |
| Pennsylvania College of Technology, Williamsport, PA | |
| BS- Residential Construction Technology and Management | 2008 |
| University of Maryland, College Park, MD<br>Pre-Architectural Studies | 1983 |
| Williamsport Area Community College, Williamsport, PA<br>AAS- Architectural Technology | 1980 |

AWARDS

| | |
|---|---|
| Who's Who Among American College Students | 2008 |

TEACHING EXPERIENCE

| | |
|---|---|
| Pennsylvania College of Technology, Williamsport, PA | |
| Part-time Instructor | January 1990- May 2004 |
| Full-time Instructor (Temporary) | August 2004- May 2005 |
| Part-time Instructor | August 2005- May 2007 |
| Full-time Instructor | August 2007- Present |

PROFESSIONAL EXPERIENCE

| | |
|---|---|
| Haven Homes, Inc., Beech Creek, PA | |
| Architectural Technologist | June 1983- August 2007 |
| Architecture Consultant | 1990-2007 |

PROFESSIONAL MEMBERSHIPS

| | |
|---|---|
| Keystone Area School District Board of Directors, Lock Haven, PA | 2001-2009 |
| First Baptist Church- Lock Haven, Chairman of the Board, Lock Haven, PA | 2011 |
| Keystone Central School District CTE Advisory Member | 2007-current |
| Jersey Shore Area School District CTE Advisory Member | 2007-2010 |
| Williamsport Area School District CTE Advisory Member | 2007-2010 |

COLLEGE COMMUNITY

| | |
|---|---|
| Adviser- Architecture Club | 2009-2011 |
| Adviser- AIAS | 2015-2020 |
| Adviser- USGBC | 2017-2020 |
| Adviser- Architecture Club of Penn College | 2020-current |
| Governance- Student Affairs Committee, Chair | 2013-2015 |
| College Council, School of Engineering Technologies, Faculty Representative | 2020-current |
| Architecture Odyssey (Summer Pre-College Program), Architecture Program Director | 2018-2021 |

COMMUNITY

| | |
|---|---|
| Calvary Baptist Church, Jersey Shore, PA, Pianist | 2014-Current |

GEOFFREY M. CAMPBELL

| | |
|---|---|
| Title: Assistant Professor | 1996 - Present |
| Architecture Department Head | 1998 - Present |
| School: Engineering Technologies | |
| Department: Architecture | |

COURSES TAUGHT (Most recent four semesters)
ACH101, ACH211, BSD332, BSD352

EDUCATIONAL CREDENTIALS

| | |
|---|---|
| Arizona State University, Tempe, AZ | |
| Bachelor of Architecture | 1982 |
| Graduated Cum Laude | |

| | |
|---|---|
| Arizona State University, Tempe, AZ | |
| M.S. in Computer Science | 1987 |
| Emphasis areas: computer applications in architecture, computer graphics, and artificial intelligence | |

TEACHING EXPERIENCE

| | |
|---|---|
| Pennsylvania College of Technology, Williamsport, PA | 1996 – Present |

CURRICULUM DEVELOPMENT

| | |
|---|---|
| Lead the successful effort in pursuit of accreditation of the associate degree in "Architectural Technology" by the Association of Technology,Management, and Applied Engineering (ATMAE) | 2015. |
| Development of "Renewable Energy Technologies" Degree offered at PCT fall of 2010. | |
| Development of "Building Science & Sustainable Design" Degree offered at PCT fall of 2009. | |

PROFESSIONAL EXPERIENCE

| | |
|---|---|
| Campbell Architects, LLC., Williamsport, PA | 2001 – 2012 |
| iMAP, Inc., Software Development, Tempe AZ | 1987 – 1996 |
| McLellan & Copenhagan, Inc., Cupertino, CA | 1989 – 1992 |
| CBT Architects, Boston, MA | 1987 – 1989 |
| Brock, Craig, and Thacker Architects, Mesa, AZ | 1984 – 1987 |
| Design Associates, Ltd., Phoenix, AZ | 1982 – 1983 |
| Myron Brower, Architect, Scottsdale, AZ | 1981 – 1982 |

Job Responsibilities at the above architecture firms: All aspects of architectural practice, including design, drafting, development of construction documents, client contact, construction administration, CAD management, optimization of CAD systems, management and training of drafting personnel.

LICENSES / REGISTRATION
Registered architect in the state of Pennsylvania
NCARB Certification
LEED Accredited Professional
Certified Passive House Consultant
PA Occupational Competency (Architectural Drafting)

PROFESSIONAL MEMBERSHIPS
Passive House Institute U.S. (PHIUS) Alliance Member

DAVID DANEKER

Title: Adjunct Faculty, 1992 - Present
School: Engineering Technologies
Departments: Architecture / Construction Management

COURSES TAUGHT (Most recent four semesters)

ACH139, ACH239

EDUCATIONAL CREDENTIALS

Pennsylvania College of Technology, Williamsport, PA
Associate of Applied Science in Architectural Technology - 1980

TEACHING EXPERIENCE

Pennsylvania College of Technology, Williamsport, PA 1992- Present

PROFESSIONAL EXPERIENCE

| | |
|---|---|
| UPMC North Central Region, Construction Project Manager | 2015 – Present |
| Tiadaghton Contrators, Inc., Owner & President, Project Manager | 1999 – 2015 |
| CVC Contractors, Inc., Senior Project Designer / Manager | 1982 – 1999 |
| Lloyd C. Cotner, Registered Architect, Architectural Technician | 1980 – 1982 |

Architectural: Responsible for all phases of design and contract document development, including preparation of civil, architectural, structural, plumbing, mechanical, and electrical drawings in addition to coordination with outside architectural engineering professionals. The above skills were applied to hundreds of projects ranging in size from minor residential additions to manufacturing facilities in excess of two million dollars.

♦Project Management / Estimating: Preparation of construction proposals and presentations for a wide range of construction projects as described above. Experienced with both the "design / build" and "bid / build" construction delivery systems. Project Management responsibilities have included estimating, contract execution, material procurement, subcontract negotiations, scheduling, administering job conferences, enforcing safety policies, coordinating field labor, preparing monthly A.I.A. applications for payment, and contract closeout.

♦Managerial: Human resource management of design department staff, including work scheduling, hiring, and firing. Selected as part of a management team assigned the task of improving design / build and plan / specification construction project flow through the development of company policies, communication tools, forms, and teamwork skills.

♦ Computer skills: Thirty-four years of experience in computer aided drafting / design working with AutoCAD R2 through R2022, Autodesk Revit Architectural 2022, SketchUp, and Timberline estimating software. Other computer-related responsibilities encompass the acquisition and implementation of computer software and hardware for the entire company. Specific computer experience includes the following: installation of local area network (LAN) server with category five wiring, Microsoft XP network software, Microsoft Office (Word, Excel, PowerPoint, & Access), Fax software, Corel Draw, Internet connection with local internet service provider, DOS, Windows 3.1 – Windows 10.

LICENSES / REGISTRATION
N/A

PROFESSIONAL MEMBERSHIPS

Pennsylvania College of Technology, Architectural Technology Advisory Board. (2004 – Present)
Served as a board member & President of the Greater Lycoming Habitat for Humanity (2000-2010)
Completed construction mission work in West Virginia (1999), Mississippi (2007 & 2009), & Haiti (February 2015)

DOROTHY J. GERRING

Courses Taught
ACH243, ACH258, ACH281, BSD322, BSD420, BSD432, BSD497

Educational Credentials

| | | |
|---|---|---|
| 1997 | Pennsylvania State University | M.S. in ArchitectureThesis: *Structural Concepts in the Beginning Design Studio* |
| 1985 | University of Arizona | Bachelor of ArchitectureThesis: *Transitional Shelter for the Homeless* |

Licenses / Registration
1989 – NCARB Registered Architect, State of Arizona, State of Pennsylvania

Teaching Experience
1989 – Associate Professor of Architectural Technology in the School of Construction and Design Technology, Pennsylvania College of Technology, Williamsport, Pennsylvania. Responsibilities include teaching architectural and sustainability courses, student advisement, student club advisor (various), curriculum development, lab development, developing courses, sustainability guru, and committee work. PSEA President 2016-2018.

Professional Experience
1990 – Private architectural practice, Williamsport, Pennsylvania. House additions and remodeling projects. Design and sustainability advice.

Related Experience

2017 – Certified Passive House Consultant, Passive House US
2010 – NABCP, Photovoltaic Entry Level Exam Passing Score Achievement.
2009 – LEED-AP, BD+C, United States Green Building Council.

Selected Publications and Recent Research
2023 – Renewable Energy Systems for Building Designers, Routledge
2023 – Open Access Chapter on Heat Pumps posted on U.S. Department of Energy's Building Science Education website

5th Annual Residential Building Design & Construction Conference, Co-Presenter, Title: *Building Industry: Trends inSustainability and Building Science Application*, State College, PA 2020. Published under same title.

26th Annual Pennsylvania Housing Research Center Housing Conference, Co-Presenter, Title: *Universal Design/Aging-in-Place: An Interactive Experience*, State College, PA 2018.

4th Annual Residential Building Design & Construction Conference, Co-Presenter, Title: *Aging-in-Place Housing: IndustryTrends in Pennsylvania*, State College, PA 2018.

3rd Annual Residential Building Design & Construction Conference, Co-Presenter, Title: *D.O.E. Race to Zero*, State College, PA 2016.

3rd Annual Residential Building Design & Construction Conference, Co-Presenter, Title: *Universal Design—Aging in Place*, State College, PA 2016.

Pennsylvania College of Technology, Centennial Colloquium Series, Presenter, Title: *Sustainable & Affordable Housing*,Williamsport, PA, 2014.

Publications/Curriculum Development
Assisted in accreditation of Associate Degree in Architectural Technology by the Association of Technology,Management, and Applied Engineering (ATMAE), 2015.

Development of Renewable Energy Degree offered at PCT fall of 2010.

Development of Sustainability Degree offered at PCT fall of 2009.

School/College Media and Promotional Materials, Media Materials
Appeared in the Telly Award-winning "Working Class: Build & Grow Green" episode produced by Pennsylvania College of Technology and WVIA. Released May 10, 2017.

Special Projects
National Green Building Standard, Task Group 5 member, 2017-18. Task Group 5 is responsible for reviewing 2018 update for Chapter 7, Energy Efficiency.
Faculty Lead for 2019, 2020 - 2022 DOE Solar Decathlon Design Challenge. Co-Faculty Lead for U.S. Department of Energy Race to Zero Competition, 2014 -16. 2014 teams chosen for Denver Housing Authority project and won prize forexcellence in Financial Analysis. 2015 team designed Passive House rated building for Lycoming Habitat for Humanity and received Grand Winner Finalist award.

DR. NAIM JABBOUR
Title: Assistant Professor
School: Engineering Technologies
Department: Architecture

COURSES TAUGHT (Most recent four semesters)
ACH101, ACH111, ACH112, ACH262, BSD432, BSD370, BSD450, BSD497, GLB 270, GLB271

EDUCATIONAL CREDENTIALS

| | |
|---|---|
| Carnegie Mellon University, Pittsburgh, PA | |
| Doctor of Design in Architecture | 2022 |
| Harvard University, Cambridge, MA | |
| Master of Liberal Arts in Sustainability | 2018 |
| Carnegie Mellon University, Pittsburgh, PA | |
| Master of Science in Architecture | 2009 |
| Louisiana State University, Baton Rouge, LA | |
| Bachelor of Architecture | 2001 |

CERTIFICATES

| | |
|---|---|
| Harvard University | |
| Post-Graduate Certificate in Green Building & Community Sustainability | 2016 |
| Post-Graduate Certificate in Daylighting Buildings | 2012 |
| Autodesk | |
| Building Performance Analysis Certificate | 2013 |

AWARDS
Excellence in Academic Advising Award (Penn College)
Honorable Mention for Dissertation Research (Carnegie Mellon)
AIA Henry Adams Certificate of Merit (LSU)
OJ Baker Memorial Design Competition Award (LSU)
National AIA/AAF Scholastic Award (LSU)
Architecture Technology Award (LSU)

TEACHING EXPERIENCE

| | |
|---|---|
| Pennsylvania College of Technology, Williamsport, PA | |
| Assistant Professor – "Architecture and Sustainable Design" | 2013 – Present |
| Assistant Dean – "School of Construction & Design Technologies" | 2018-2019 |
| Principal Investigator – "NSF BE Scholars S-STEM Program" | 2017 - 2022 |
| Instructor – "Architecture and Sustainable Design" | 2009-2013 |

RELATED EXPERIENCE

| | |
|---|---|
| Penn College (Governance/Committees/Union) | |
| Atelier Naim Jabbour (Principal Designer/Owner) | 2009 – Present |
| USGBC - Center for Green Schools (USGBC Students National Chair) | 2011 – 2015 |
| PBK, Houston, TX (Project Designer & Executive) | 2001 - 2008 |

PROFESSIONAL MEMBERSHIPS & ACCREDITATIONS
NCARB Member - AIA Associate
USGBC Member (National + Central PA) - LEED AP bd+c Professional accreditation
Lebanese Green Building Council Member
Harvard Alumni for Climate and Environment Member
Innovation Engineering Blue Belt Certificate
AIA PA School Construction Task Force
USGBC LEED Equity Working Group

SELECTED PUBLICATIONS
A comparative meta-analysis of residential green building policies in targeted countries & their impact on energy patterns (2020)
A parametric analysis of architectural variables and Impacts on energy consumption in a baseline PA single-family home (2020).
Energy production and consumption patterns: an examination of the state of energy, electricity, and air pollution in Lebanon (2020)

ELLYN LESTER, PHD
Title: Assistant Dean of Construction and Architectural Technologies
School: Engineering Technologies

COURSES TAUGHT (Most recent four semesters)
BSD482 Professional Practice (Fall 2024 – inaugural course)
CM592, CM521, CM530, CM671, CM501, CM502 - Stevens Institute of Technology (F2020/S2021)

EDUCATIONAL CREDENTIALS
PhD in the Built Environment: University of Salford, Manchester, England 2023
Master of Architecture: University of Kansas: School of Architecture and Urban Design 2002
BS in Journalism: University of Kansas: William Allen White School of Journalism & Mass Communication 1999

TEACHING EXPERIENCE
Pennsylvania College of Technology: Assistant Dean, Williamsport, PA 2021– present
Stevens Institute of Technology: Associate Professor, Hoboken, NJ 2014 – 2021
New School of Architecture and Design: Career Services Director & Adjunct Faculty, San Diego, CA 2010 – 2013
University of Kansas School of Architecture and Urban Design: Adjunct Faculty, Lawrence, KS 2003

PROFESSIONAL EXPERIENCE
NovaConnect, Inc.: President 2007 – 2010
MBA Management, Inc.: Vice President of Architecture 2005 – 2007
Design-Build Institute of America, Inc.: VP of Membership and Marketing / ED Mid-America Chapter 2002 – 2005
WRS Architects, Inc.: Director of Business Development 2000 – 2002
Shaughnessy, Fickel & Scott, Architects, Inc.: Marketing Director 1998 – 2000
LGA (Architecture), Inc.: Project Coordinator 1996 – 1998

AWARDS
2020 Carol A. Kueker Construction Education Visionary Award – Career Award Recipient: NAWIC Education Foundation
2020 6th Intl. Knowledge Management /Intellectual Capital Excellence Awards – Finalist: 21st European Conference
2018 Faculty Appreciation Award Recipient – Graduate Student Council: Stevens Institute of Technology
2018 Department Director's Award – Civil, Environmental and Ocean Engineering Department: Stevens Institute of Technology
2015 Department Director's Award – Civil, Environmental and Ocean Engineering Department: Stevens Institute of Technology
2012 Associate of the Year Award: American Institute of Architects (California Council)
2011/2012 Staff Member of the Year: NewSchool of Architecture and Design
2003 Chapter of the Year: Design-Build Institute of America
2002 Presidential Citation: American Institute of Architects Kansas City Chapter
2001 Striving for Excellence Grand Prize: Society of Marketing Professional Services

SELECTED PEER REVIEWER & JURORS
(NAWIC) International Project Excellence Awards 2022 Juror
Intl. Council for Research & Innovation in Building & Construction International Conference 2022 Peer Reviewer
American Society of Engineering Education Annual Conference 2021 Peer Reviewer
American Council for Construction Education Accreditation Visit 2021 Team Member
Association for the Capital Projects Engineering & Construction Industry 2020 Juror
Association for Researchers in Construction Management 2021 Peer Reviewer
American Real Estate Society Annual Meeting 2020 Peer Reviewer
26th International Conference on Transdisciplinary Engineering 2020 Peer Reviewer
2015 Mid-Atlantic ASEE Conference, Spring 2015 Conference Proceedings 2015 Peer Reviewer

SELECTED PEER REVIEWED PUBLICATIONS AND PROCEEDINGS:
"A Global Survey of Infection Control and Mitigation Measures for Combating the Transmission of COVID-19 Pandemic in Buildings Under Facilities Management Services"
Frontiers in Built Environment Journal 2022
"Strategic Responses to Disruptions: A Mobilization/Response to Manage Knowledge in the Built Environ."
The International Knowledge Management and Intellectual Capital Excellence Awards Book 2020
"Education, Design and Practice – Understanding Skills in a Complex World"
AMPS International Research Organization Conference Proceedings 17.1 (Editor) 2020
"Education, Design and Practice – Understanding Skills in a Complex World"
AMPS International Research Organization Conference Proceedings 17.2 (Editor) 2020
"The Social Phenomenon of Changing Workplace Dynamics: Encouraging Mentors to Share Knowledge"
Psychology in Construction International Conference 2018
"Mentorship as a Key to a Sustainable Future for the Built Environment"
International Conference on Construction Futures, Wolverhampton, UK 2018

TUNA SAKA
Title: Associate Professor
School: School of Engineering Technologies
Department: Architecture

COURSES TAUGHT (Most recent four semesters)
ACH101, ACH111, ACH119, ACH135, ACH139, ACH181, ACH240, ACH264

EDUCATIONAL CREDENTIALS

State University of New York at Buffalo
Master of Architecture 1988

State University of New York at Buffalo
Bachelor of Professional Studies in Architecture 1986

Hudson Valley Community College
Associate in Applied Science in Civil Engineering Technology 1983

TEACHING EXPERIENCE
Pennsylvania College of Technology, Williamsport, PA

Associate Professor – Architecture & Sustainable Design 2000-Present
Developed syllabus and overall course structure, delivered student instruction, advisement and administered all grades. Created a comprehensive *hands-on* approach to teaching Architectural Computer Aided Drafting (ACH 135) course using AutoCAD software. Taught Architectural Design, Architectural History, Architectural Graphics, Building Materials, Construction Documents, Environmental Systems, Building Codes, and Estimating courses.

Assistant Professor – Architectural Technology 1996-2000
Developed syllabus and course structure, delivered student instruction, advisement and administered all grades.

Instructor – FYE-101 (First Year Experience) class 2017-Present
Developed syllabus and overall course structure, and delivered student instruction for First Year Experience class. Created strategies and practices to ensure a positive and rewarding first-semester experience and continued success for students new to Penn College. Instruction included explaining college policies, procedures, resources, and expectations. Provided tools for strengthening academic and critical thinking skills; and provided an information foundation that promoted understanding and encouragement to participate in the College services and community.

GOVERNANCE EXPERIENCE

Pennsylvania College of Technology, Williamsport, PA April 2018 –January 2021
Member – Curriculum Governance Committee
Reviewed and made recommendations concerning new, revised, and to-be-deleted courses, programs, or curricular proposals. Ensured information regarding proposals is communicated to appropriate constituencies.

Pennsylvania College of Technology, Williamsport, PA January 2014 –April 2018
Member – Academic Standards and Issues Governance Committee
Reviewed and made recommendations concerning instructional methodology and materials, program evaluations, core competencies/courses/credentials, student retention/probation/termination, and academic standards.

RELATED EXPERIENCE

Pennsylvania College of Technology, Williamsport, PA 2008 –Present
Penn College NOW Faculty Liaison
Provided teaching and academic support to High School and Career and Technology Center teachers to teach ACH 135 course in their respective High Schools, Vocational and Technology Centers. This program allows qualified high school students to take college courses and receive both high school and college credit.

SELECTED PUBLICATIONS

*AutoCAD for Architecture*
A comprehensive text that leads students through the basic fundamentals and advanced features of AutoCAD software for creating architectural drawings.
Prentice-Hall, New Jersey, 2002. ISBN: 0-13-091436-3 www.prenhall.com/saka 2002

ROBERT WOZNIAK
Title: Associate Professor
School: Engineering TechnologiesDepartment: Architecture

COURSES TAUGHT (Most recent four semesters)
ACH112, ACH129, ACH135, ACH141, ACH262, BSD340, BSD352, BSD410

EDUCATIONAL CREDENTIALS

| | |
|---|---|
| Wilkes University, Wilkes-Barre, PA | |
| M.Ed. – MS Degree, Educational Development & Strategies | 2016 |
| Indiana State University, Terre Haute, IN | |
| Graduate coursework towards MS Degree, Human Resource Development, College of Technology | Various |
| State University of New York at Buffalo, Buffalo, NY | |
| BPS, College of Architecture and Planning | 1984 |
| Vincennes University, Vincennes, IN | |
| Continuing Education | Various |
| Mesa Community College, Mesa, AZ | |
| Continuing Education | Various |

AWARDS / CERTIFICATIONS / PRESENTATIONS

| | |
|---|---|
| Residential Building Design & Construction Conferences (RBDCC), co-presenter, State College, PA | 2016, 2018, 2020 |
| NAHB Certified Aging In Place Specialist (CAPS) | 2016 |
| Pennsylvania College of Technology Colloquial Presentation, co-presenter | 2015 |
| USGBC Leadership in Energy and Environmental Design – Accredited Professional (LEED®AP) | 2009 |
| Who's Who in America® | 2009, 2010 |
| The Pennsylvania State University – Architectural Drafting Occupational Competency | 2008 |

SELECTED PUBLICATIONS

*Made in America, Sustainable Building Products, Materials & Methods,* 2017, W. R. Parks, Hershey, PA

TEACHING EXPERIENCE

| | |
|---|---|
| Pennsylvania College of Technology, Williamsport, PA | |
| Associate Professor – Architecture and Sustainable Design | 2020 – Present |
| Associate Professor – Architectural Technology \| Building Science + Sustainable Design | 2005 – 2020 |
| Vincennes University, Vincennes, IN | |
| Program Coordinator / Associate Professor – Architectural Technology | 1997 - 2005 |
| Associate Professor – Architectural Technology | 1995 - 1997 |
| Assistant Professor – Architectural Technology | 1990 - 1995 |
| Mesa Community College, Mesa, AZ | |
| Instructor (Adjunct Faculty) | 1988 - 1990 |
| Phoenix Institute of Technology, Phoenix, AZ | |
| Instructor | 1987 - 1988 |

PROFESSIONAL EXPERIENCE

| | | |
|---|---|---|
| Harrington Sandberg Architecture & Engineering, P.C., Jamestown, NY | Designer / Project Manager | 2000 – 2005 |
| Symons Corporation, Phoenix | Engineering Technician | 1990 |
| Environ Architectural Modelbuilders, Tempe, AZ | Scale Model Builder | 1986 – 1987 |
| Wallace and Watson Associates, Architects & Planners, Tempe, AZ | Assistant Project Manager | 1985 – 1986 |
| Schneider Design Associates, Architects, Engineers & Planners, Buffalo, NY | Project Coordinator | 1985 |
| Professional Solar, North Tonawanda, NY | Contractor, Draftsman/Designer, Scale Model Builder | 1984 |
| Wozniak Design/Build Services, Buffalo, NY; Phoenix, AZ; Vincennes, IN; Williamsport, PA | | 1984 - Present |

MEMBERSHIPS / AFFILIATIONS

Autodesk User Group International (AUGI); Building Green.com; International Code Council (ICC); National Trust for Historic Preservation; Advisory Committee Member – Lycoming Career Technical Center (Hughesville, PA); Milton Hershey School, Drafting & Design (Hershey, PA);Board Member - Williamsport Historic Architectural Review Board; Faculty Representative – Penn College Education Assoc. (PCEA)

## Appendix D: The Eligibility Memorandum

**NATIONAL ARCHITECTURAL ACCREDITING BOARD, INC.**
107 S West St, Suite 707 | Alexandria, VA 22314
info@naab.org | 202.783.2007 | www.naab.org

December 16, 2022

Michael Reed, Ed.D.
Vice President for Academic Affairs and Provost
Pennsylvania College of Technology
One College Avenue
Williamsport, PA 17701
mjr18@pct.edu

*SENT VIA EMAIL*

Dear Dr. Reed:

At their December 2022 meeting, the directors of the National Architectural Accrediting Board (NAAB) reviewed the application for eligibility for candidacy for the Pennsylvania College of Technology Bachelor of Architecture program.

Based on the NAAB review, the proposed professional architecture degree program, Bachelor of Architecture (152 semester credits), has been accepted as eligible for candidacy. A virtual visit for initial candidacy will be scheduled in fall 2023. This visit will be conducted under the provisions of the *2020 NAAB Conditions for Accreditation* and the *2020 NAAB Procedures for Accreditation*.

The program is required to submit an Architecture Program Report (APR) for Initial Candidacy six months before the date of the visit to NAAB at accreditation@naab.org. As the program is developing its APR- IC, it must address all Conditions and sub-conditions.

If you have any questions, please contact the NAAB office at accreditation@naab.org.

Sincerely,

David L. Hoffman, FAIA, NCARB
President

cc: Raúl Rivera-Ortiz, Director, NAAB, and Review Panel Member
Michaele Pride, Assoc. AIA, NOMA, Director, NAAB, and Review Panel Member
Geoffrey Campbell, Department Head for Architecture