



Northampton Community College

**Architecture A.A.S. Degree  
Audit  
2015-2019**

**External Auditor:**

**Wayne Vanderhoof**

**Partner**

**Schoonover and Vanderhoof , Architects  
East Stroubsburg Pa.**

**Audit Draft Prepared By:**

**Revised 2/26/2020**

**Ken Trionfo**

**Richard Upjohn Fellow**

**Professor/Director Architecture and Interior Design  
Business & Technology Division**

**ARCHITECTURE PROGRAM  
AUDIT REPORT  
2015-2019**

**PROGRAM PURPOSE**

The Associate degree in Architecture has two goals; the primary goal is to prepare graduates with the foundational knowledge and skills to transfer to baccalaureate programs that lead to professional registration in architecture, while the second goal is to prepare students for entry-level employment in industries related to the architectural and building fields.

**CURRICULUM** (Appendix A)

Program courses are scheduled to facilitate a full-time Associates degree completion in two years, part-time completion in approximately three or four years. Architectural courses are scheduled during the day and evening with the bulk of the architectural offerings during the day to accommodate our general architecture student population which continues to be a predominately day population. Written communication skills are included in the program in the following courses, Architectural Design IV, Architectural History I and II, and Materials and Methods of Construction I and II.

In keeping with Pennsylvania state educational requirements, courses should be reviewed on a 5-year cycle, at most. Practically may mean that courses are reviewed more frequently to accurately reflect industry/discipline trends. The current revisions in the Architecture program have successfully met both our primary goal of preparing students for transfer to Bachelor institutions as well as our secondary goal of preparing students to enter into the workplace. Current curriculum in the Architecture program includes an architectural graphics sequence, an architectural history sequence, a four-semester design studio sequence, upper-level five-credit studios, materials and methods sequence, all designed to prepare students for the rigor of a four-year institution. Sustainable design topics and architectural materials and methods have also been introduced in various courses.

New approaches to computer technology continue to provide for integration across the curriculum as opposed to simply teaching Computer Aided Design - CAD. This integration of 3D computer skills, curriculum wide, allows students to use the computer as a supportive design and visualization tool in most of their classes. The pedagogical change eliminating the computer lab and integration of the computers into the studio environment paid real dividends in student learning, as the digital-learning curve in the studio dropped significantly from two weeks to about one, four-hour session during the audit period. This assessment was strictly through observation and experience with student progress. No assessment project was in place at the time. This has underpinned our fundamental approach to learning that we no longer teach CAD as a stand-alone element of architecture, but rather as an integral element of the design process.

The professional internship class component added to the curriculum during the previous audit period has proven successful with over a dozen students applying their office experience toward their degree while sharing their experience with other classmates.

The Community Design Studio, offered in the spring of the second-year, offers students the opportunity to study in a real off-campus urban laboratory in our Neighborhood Design Center. This studio provides a major connection to current teaching practice at four-year institutions. This Neighborhood Studio, held in Bethlehem and Nazareth has been immensely successful providing a learning experience unparalleled in the community college community. This studio, drawing extensive press, has become a model for civic engagement; one of the college's strategic focus areas.

A new "Construction Project Studio" established by Professor Trionfo during the fall semester now provides second-year students the opportunity to both design and build an actual full scale structural details of their building design .

Another exciting addition over this audit period is *The Architecture of the City: Classic to Contemporary* (INTS 202). This is an interdisciplinary course focusing on architecture of a host city. Created by Dan Ebner, this 3-credit study abroad course will be offered for the first time in Summer 1 2015. It will be taught primarily in the host city and includes tours and in-person observations to provide an understanding of the host city architecture. *Will add Dan's synopsis of this class over audit period when submitted***COURSE TITLE: The Architecture of the City:**

### **Classic to Contemporary**

Course and section numbers: INTS 202 Section 01

Spring 2014 (Spain), Summer 1 2015 (Spain), Summer 1 2017 (Italy), Summer 1 2018 (Italy),

### **COURSE SYNOPSIS:**

#### **INTS 202 - The Architecture of the City: Classic to Contemporary**

This interdisciplinary course focuses on the Architecture of a host city or cities. A specific host city or cities is selected for each semester that the course is offered. Example host cities include Barcelona, Spain, Paris, France and Rome, Italy.

This travel study course is taught primarily on-site and includes site tours and in-person observations to provide an understanding of the architecture and culture of the host city. Students will experience architecture from several time periods that have influenced design throughout the world. Representative projects include monuments, outdoor spaces, museums, civic and religious buildings, along with historic and contemporary structures. The course will include a study of the architectural design, style and urban and historical context. Students will be required to prepare on-site sketches or photography or video and produce reflective journaling about each day's experience throughout the entire 2-week study. This course is offered to any student in the college and in the past has included a mix or multi disciplines including Art students, Business, Architecture, Biology, Interior Design, History and Health Sciences to name a few. The course has run several years and included Spain in Spring Semester 2104 and Summer 1 Semester 2015, Italy Summer 1 Semester 2017 and Summer 1 2018. In Summer 1 Semester 2020 Berlin and Prague are planned. Our tours have also been joined by

other faculty including Dean Pense Dean of the Humanities Division, and Manny Gonzalez Dept Head of International Studies adding their expertise to the experience. All said the course is a life changing event in the lives of the students as they gain a broader view of the world beyond Northampton.

### **ENROLLMENT** (Appendix B)

Over the audit period the Architecture program witnessed strong and steady enrollments: 142 in 2014-15; 148 in 2015-16; 128 in 2016-17 ; 130 in 2017-18; 106 in 2018-19. Retention rates from fall to spring during the same period were consistently strong from a low of 80% to a high of 100%. Graduates of the program numbered 13 in 2013, 11 in 2014, 18 in 2015, 14 in 2016 and 7 in 2017. The majority of students are full-time (408) vs. part-time (245) over the audit period.

### **COSTS** (Appendix C)

Program costs/FTE for the Architecture program ranged from \$6,468 in 2015 rising to \$8,927 in 2019 ranking 42 of 119 in 2015 and 46 of 133 in 2019 in cost as compared to other college programs. Income/FTE for the audit period ranged from \$6,456 in 2015 rising to \$7,751 in 2019.

## **FACULTY**

The program has two full-time faculty members. Ken Trionfo, Director of the Architecture and Interior Design programs since 1999 is tenured full Professor . His leadership and innovations with the Neighborhood Design Center have raised the notoriety of our program nationally.

Professor Trionfo authored "The Neighborhood as a Social Place, A Design Guide for Pocket Neighborhood and Cottage Housing, *A resource Guide for the Development Process*" during the spring semester of 2014 while on sabbatical and has included the work in the guide while presenting to community groups. As a result, pedagogical creativity and project-based learning in the classroom have been enhanced .

Assistant Professor Dan Ebner, hired in Fall of 2010 as full-time tenure-track faculty, teaches in both Interior Design and Architecture courses in the program. Professor Ebner is also owner/principle in Daniel Ebner Architects, a full service architecture firm in Allentown Pa. *Another exciting addition over this audit period is INTS 202, a study abroad in Spain, a 3-credit course created by Professor Dan Ebner and approved by curriculum committee.*

Approximately eight adjuncts teach the remaining classes in both Architecture and Interior Design and currently work as professionals in their respective fields of Architecture and Interior Design.

## **STUDENT INFORMATION/PROGRAM OUTCOMES**

### **A. Completion/Graduate and Placement** (Appendix D)

Most of the full-time students complete the program in two to three years. With the program now geared towards transfer to four-year institutions, full-time students outnumbered part-time students: 94 to 48 during 2014-2015; 93 to 55 in 2015-2016; 73 to 55 in 2016-2017; 80 to 50 in 2017-2018; 88 to 38 in 2018-2019

Curriculum changes that have provided a more seamless entry into four-year schools has led to a high retention rate among full-time architecture students, resulting in most students completing the full two-year program. Over the audit period, students were accepted to the:

University of Miami  
University of Michigan  
Drexel University,  
Philadelphia University  
Penn State University  
Florida Atlantic University  
Temple University  
Lehigh University  
The New School of Architecture

IIT  
East Stroudsburg University  
University of Colorado  
Marywood University  
University of New Mexico  
Boston Architectural Center  
Kansas State University  
Cal Poly Pomona

The number of program graduates over the audit period was sixty -three during audit period. During the five-year audit period the graduates of the program numbered 13 in 2013, 11 in 2014, 18 in 2015, 14 in 2016 and 7 in 2017.

Based on limited reporting, 67% of graduates continued their education at four year university level while 29% entered the workforce over the audit period in related fields.

***B. Satisfaction Surveys Have no data on satisfaction surveys at this time***

A limitation of the alumni survey data is the low number of respondents. Over the 2008 year of alumni data the total number of respondents was three.

Of those who responded, all felt that NCC prepared them well for continuing their education.

With only three alumni responding, it is difficult to draw any conclusions on how well students felt NCC prepared them for their occupation. The program director and department faculty offer a more accurate gauge of how well students are performing in the profession based on continual contact and feedback.

***C. Current Students***

The demographics of the Architecture program are as follows: the majority of students in the program were full-time. The number of female students is consistent with national averages in architecture programs of approximately 30-40. This a slight increase from the previous audit period.

Most students entering the program over the audit period indicated their intention of transferring and continuing their education. Most full-time students who have successfully completed the two-year program and have indicated a desire to transfer have in fact accomplished this goal. While we have no direct statistics, our high retention rate from first-year to second-year allows the faculty to keep in close contact with students as they transfer to four-year institutions.

*The majority of students surveyed rated the academic program good or very good in all categories except for availability of course times. The majority of students rated the overall college environment from adequate to very good in all categories. Do we have stats on this?*

## **ARCHITECTURE ADVISORY BOARD**

A new Advisory Board was established during the audit period. Representatives from Marywood University, Thomas Jefferson University , Penn Tech Institute as well as three practicing architects attended the advisory meeting offering expertise to the program to achieve the most relevant and current program outcomes. Our division secretary was present and recorded minutes.

Professional Architects have been regularly invited to jury student work and offer feedback on student progress during the audit period. Each advisory member is a volunteer participating in NCC's commitment to educate the next generation of professionals.

## **CONCLUSIONS & RECOMMENDATIONS**

The Architecture program has been recognized by four-year institutions and the profession as a high quality program. It provides students with a strong educational foundation to transfer to five-year accredited degree programs and entry into the workforce.

1. Faculty recommendation: Continue the program.
2. Continue to upgrade hardware and software in computer studios to remain current.
3. Work with planning department to increase the number of respondents and the overall effectiveness of survey data.
4. Continue to stay abreast of current five-year curricula broadening transfer opportunities.

---

**Kenneth Trionfo**  
**Professor/Director, Architecture &**  
**Interior Design**

---

**Denise François-Seeney, Ph.D.**  
**Dean, Business & Technology**

# Appendix A

## Architecture

Business & Technology

**Degree awarded: Associate in Applied Science**

### Program Narrative

Architects and architectural technicians shape the built environment, creating homes, offices, schools and much more. Do you have a passion for creating on paper and with computers? A career in architecture or architecture-related fields could be a satisfying and rewarding profession. An associate's degree in Architecture from Northampton provides an affordable foundation for a traditional five-year degree program leading to a career as a licensed architect. It can also prepare you for work in the field upon graduation.

Northampton's program offers a mixture of academic, design and advanced computer technology coursework. You will receive a base of knowledge to broaden your perspective of the world. Our four semester design studio sequence emphasizes skills development in architectural conceptualization as well as design vocabulary and process. Supporting coursework in history, graphics and building technology mesh with your studio work to enhance your critical thinking, problem solving and communication skills. With computer technology dramatically changing the practice of architecture, Northampton's curriculum strives to stay on the leading edge of 2D and 3D technology across the curriculum. We also balance those technologies with traditional graphic and model making skills development.

Please note that senior architecture schools consider applicants from Northampton on an individual basis and have traditionally granted both full and partial credit depending on the abilities of the student and the requirements of the transfer school.

### Program Features

Northampton's program is a member of the Association of Collegiate Schools of Architecture, ensuring that the program is current with movements in the field. Our faculty consists of practicing, registered architects who, as members of the American Institute of Architects (AIA), are on top of developments in both architectural education and practice.

The Architecture Department has an active chapter of the American Institute of Architecture Students (AIAS), which provides our students with leadership opportunities at the local and national level. The AIAS also offers social activities and field trips that enhance your architecture studies.

Opportunities for practical experience include a five-credit community design studio taking place in a community-wide environment. This capstone project gives students hands-on experience in the field. In addition, students who qualify may choose to complete a three credit professional internship and apply their practical office experience to their education for credit. Students will work under the direction of an employer with a professional degree in architecture. Arrangements will be made through the architecture department. Both the community design and internship learning experiences are of great value when the graduate either enters the profession or transfers to a Bachelor degree program.



## **"Real World Community Learning"**

Northampton's architecture program offers a 5 credit capstone community design studio which takes place in a community wide environment giving you "hands-on" learning opportunities.

## **Professional Internship**

Students who qualify may choose the option of a three credit professional internship and apply their practical office experience to their education for credit. Students will work under the direction of an employer with a professional degree in architecture. Arrangements will be made through the architecture department. Both the community design and internship learning experiences will prove to be of great value when the graduate either enters the profession or transfers to a Bachelor degree program.

## **Course Scheduling**

Courses are scheduled both day and evening for students who want to attend full time or part time. Although many of the required courses are offered in the evening, the complete program will require some daytime attendance.

## **Program Outcomes**

*Graduates of the program will be able to:*

1. Use abstract design ideas to interpret design information while investigating alternative outcomes based on research and analysis.
2. Use a diverse range of media to think about and convey architectural ideas including writing, speaking, drawing and model making (both hand and digital media).
3. Gather, access, record and comparatively evaluate relevant design information as part of the process of investigation.
4. Examine and comprehend history and precedent and make informed choices regarding the incorporation of same into architecture and urban design projects.
5. Identify parallel and divergent ideas and traditions of architecture and urban design influenced by the social, cultural, historical and philosophical determinants of a global society.
6. Comprehend the technical aspects of design, systems, materials and principles of building structure and be able to apply that comprehension to architectural solutions.
7. Respond to site characteristics including zoning, topography, vegetation and watershed in architecture and urban design projects.
8. Prepare drawings and models illustrating and identifying the assembly of materials, systems and components for building design and structure.

These program outcomes are based on:

2014 Conditions for Accreditation of the National Architectural Accrediting Board

- Part (II) - Section 1 - Student Performance - Educational Realms & Student Performance Criteria

- Realm A: Critical Thinking and Representation
- Realm B : Integrated Building Practices, Technical Skills and Knowledge

- *Based on: "Teaching for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives.*

## Architecture

Associate in Applied Science Degree

Course Code	Course Title	Credits
<b>First Semester</b>		
ARCH 100	Architectural History I-Antiquity to 1870	3
ARCH 101	Architectural Graphics I	3
ARCH 110	Architecture Design Studio I	3
ENGL 101C	English I	3
MATH 140	College Algebra	3
		<hr/>
		15
<b>Second Semester</b>		
ARCH 121	Architectural Graphics II	3
ARCH 150	Architecture Design Studio II (Digital)	3
ARCH 155	Architectural History II-1870 to Present	3
ENGL 151*	English II *	3
MATH 145	Trigonometry	3
		<hr/>
		15
<b>Third Semester</b>		
ARCH 204	Design & Analysis of Structural Form	3
ARCH 210	Architecture Design Studio III	5
ARCH 214	Architectural Materials & Methods of Construction I	3
ARCH 215	Advanced Digital Analysis	3
CMTH 102	Speech Communication	3
		<hr/>
		17
<b>Fourth Semester</b>		
ARCH 250	Architecture Design Studio IV	5
ARCH 254	Architectural Material Methods Construction II	3
-----	General Education Elective (SIT or SSHB)	3
-----	Elective	3
		<hr/>
		14
<b>Total Credits:</b>		<b>61</b>

**NOTE: ARCH 200 Interior Design Professional Internship (3 cr. optional elective) offered Fall, Spring, Summer 1 and Summer 2 semesters. Please see advisor.**

**\* Students have a choice of ENGL 151L (Literature option), ENGL151R (Report Writing) or ENGL 151T (Technical Writing). Contact your advisor for guidance.**

- For the General Education Elective, students must select one course from the list of approved courses in one of the following categories: Social Science: Societies and Institutions over Time (SIT) or Social Science: Scientific Study of Human Behavior (SSHB).
- Completion of ENGL 151L satisfies the Diversity and Global Awareness (D) requirement for this program.
- Completion of both ARCH 210 and ARCH 250 satisfies the Writing Intensive (WI) requirement for this program.
- Computer competencies are included in various courses in this program. Thus, completing the program automatically satisfies the computing requirement for this program.

**Career Potential:** Leading to: Architect, Architectural Technician, Building Inspector, Architectural/Building Sales

**NCC students have transferred to:** Drexel University, Florida Atlantic University, Lehigh University, Penn State University, Temple University, University of Arizona, University of Maryland, University of Miami, University of Michigan

*ARCH 200 Professional Internship (3 cr. optional elective) offered Fall, Spring, Summer1 and Summer 2 semesters. Please see advisor*

