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SCHOOL OF ARCHITECTURE

Architecture Building, Room 103
269-471-6003; FAX: 269-471-6261
architecture@andrews.edu
www.arch.andrews.edu

Faculty

Carey C. Carscallen, *Dean*
Paula L. Dronen, *Assistant Dean*
William W. Davidson, *Professor Emeritus*
Kathleen M. Demsky, *Library Director*
Troy M. Homenchuk
Robin A. Johnson
Thomas B. Lowing
Mark A. Moreno
Rhonda G. Root
Llewellyn D. Seibold
Martin D. Smith
Ariel Solis
Andrew C. von Maur
Kristin S. von Maur

Academic Programs	Credits
MArch: (3½ Year Track)	102
MArch: (5½ Year Track)	
MArch (Professional Degree)	30
BSA: Architecture	138
BS: Architectural Studies (Non-Professional)	128
Minor in Architectural Studies	23

Mission

The School of Architecture at Andrews University aspires to teach its students sound thinking, practical skills, and rigorous scholarship in the discipline of architecture. It promotes those who:

- Craft buildings that are dignified, durable and purposeful;
- Design communities that foster civility;
- Serve mankind in accord with their professional and Christian vocation;
- Seek the virtues of joy, beauty, wholeness and moderation in their lifelong pursuit of learning.

All this for God's honor and His glory until the risen Christ comes again.

Academic Calendar 2011–2012

May 25, 2011 Deadline for application to professional degree track

3½ Year Application Deadlines

Sept 15, 2011 For January 2012 admission
Feb 14, 2012 For summer or fall admission

Programs

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit US professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be

granted a six-year, three-year, or two-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Andrews University School of Architecture offers the following NAAB-accredited programs:

MArch (pre-professional + 30 graduate credits)

MArch (non-pre-professional degree + 102 credits)

Next accreditation visit for all programs: 2012

(*The National Architectural Accrediting Board, Inc., 2009 Conditions for Accreditation*)

Master of Architecture (5½ Year Professional Degree Track)

The professional degree program consists of a pre-professional Bachelor of Science in Architecture degree and then a Master of Architecture degree. When earned sequentially, the degree track results in the accredited professional education.

Master of Architecture (3½ Year Professional Degree Track)

The 3½ year professional degree program is designed for students who have previously earned an undergraduate degree that may be in an unrelated area of study. Acceptance is required to both the University School of Graduate Studies & Research and the School of Architecture 3½ Year program. Graduate standards of scholarship apply to all coursework. Under this option, the student spends the first 2½ years completing undergraduate prerequisite architectural core courses. The final year is similar to the final year of the Master of Architecture 5½ Year degree which results in the accredited professional degree. Please see the Academic Calendar for application deadlines.

Bachelor of Science in Architectural Studies

The Bachelor of Science in Architectural Studies is a non-professional degree. Students who elect this degree do not proceed into the professional program track. In this program, Architectural Studies is declared as a major and upon successful completion, receives an undergraduate degree. Students who elect for this degree may seek advanced degrees or employment in the construction industry, the arts, business, and other fields.

Resources

The Architecture Resource Center (ARC) provides an extensive range of materials including over 25,000 books, 90 journals, and a growing media collection. An added dimension to resource materials are two special collections. The ARC maintains a relationship with the Environmental Design Research Association, and houses an internationally recognized collection of books and materials in the area of environmental psychology and design. In addition, the ARC holds the Senseman Rare Book Collection of over 800 rare and out-of-print books and photos.

Other Facilities. The architecture facilities include a well-equipped and staffed woodworking shop; a computer laboratory for word processing, spreadsheets, imaging manipulation, and

CAD. The lab is equipped with a 12-station local area network with Ethernet connections, small and large format printing capabilities, and multiple scanners.

Student Handbook. A handbook for School of Architecture students outlining policies, operational guidelines, and general information is available from the School office.

Admission Procedures

5½ Year Professional Degree Track

Students seeking to pursue architecture at Andrews University must first submit an Andrews University undergraduate application for acceptance to the pre-architecture years. Enrollment in the School of Architecture is limited. The application deadline for pre-architecture enrollment is July 15 for the following fall semester, or November 15 for the following spring semester. Applications received after these dates may be placed on an enrollment waiting list. Upon completion of the pre-architecture years, students must apply for acceptance into the professional degree track. This application packet is submitted directly to the School of Architecture, and may be obtained from the School office. Please note that acceptance to the university for the pre-architecture years does not guarantee acceptance to the professional degree track. Upon acceptance to the professional degree track, academic standards must be maintained in order to move from the Bachelor of Science in Architecture degree to the final year of study, resulting in the Master of Architecture degree. The School does not accept applications for the MArch year only.

Transfer Students

Transfer applicants who have no previous work in architectural design must complete the foundation (pre-architecture) years and then make formal application to the professional degree track.

Advanced Standing. Transfer students from another architecture program may apply for advanced standing (third or fourth year) in the professional degree track. The School of Architecture does not accept applications to the Master of Architecture Year only. Transfer students applying for advanced standing are required to submit both the university application and the School of Architecture application. Please contact the School for specific information.

Tentative placement into the design sequence is made after the Admissions Committee has evaluated the student's submissions. After one term, the student is given final placement in the design sequence and, on the basis of transfer-course evaluations, receives credit for previous academic work towards the Andrews University degree.

Summer Studio. In some cases, completion of the Summer Studio program is best for transfer students. Prior to application, students must have a transcript analysis done by the School of Architecture to determine eligibility for the program. It is expected that students pursuing the summer studio option will have completed the majority of general education courses normally required in Pre-Architecture Year One.

Application to the Summer Studio is made by filling out an Andrews University Undergraduate Application. Students applying to this program, in addition to applying to Andrews University, must also contact the School of Architecture directly to confirm their reservation for the class.

Academic Standards

A grade of C- or higher is required in order to continue in the design studio sequence. A grade of less than C- requires a student to repeat that studio before advancing in the studio sequence. Faculty approval is required for any studio course to be repeated. (This includes ART104, ARCH126, 215, 247, 318, 320, 441, 442.)

Students accepted into the Professional Degree Track are expected to maintain the minimum cumulative GPA requirement of 2.75 for acceptance into the Master of Architecture year (see Graduate-Year Enrollment requirements, p. 266). Students whose cumulative GPA falls below this minimum requirement are not allowed to continue to the Master of Architecture Year (graduate-year) but may be eligible to receive the Bachelor of Science in Architecture (BSA) degree (the pre-professional component of the professional Master of Architecture degree). The BSA degree alone is not an NAAB-accredited degree. A minimum cumulative GPA of 2.25 is required to receive the BSA degree.

Computer Policy

The School of Architecture regards the computer as a tool helpful in achieving the purposes of the Program Mission, and to students in their professional development. Use of the computer in the curriculum varies by course.

Students are required to have a laptop computer and software that meet the requirements of the curriculum as they advance through the program. It is up to the students that their laptop is capable of effectively running the software used in the different courses. A list of software used in the curriculum is available at the School of Architecture office and must be consulted when purchasing a laptop.

Other Policies

Students are responsible for all policies outlined in the *School of Architecture Student Handbook*.

BSA Professional Degree Track

General Education Requirements—43

See professional program requirements, p. 43, and note the following **specific** requirements:

Religion: professional degree requirements

Language/Communication: professional degree requirements

History: HIST117, 118

Fine Arts/Humanities: ART104

Life/Physical Sciences: PHYS141

Mathematics: MATH168

Computer Literacy: covered in core curriculum

Service: covered in core curriculum

Social Sciences: professional degree requirements

Fitness Education: professional degree requirements

Pre-Architecture Year One

General Education—26

ART104, COMM104, ENGL115, HIST117, 118, MATH168, PE Elective, RELT100, Social Science Choice (see list, p. 43)

Architecture Core—6

ARCH126, 150

Continued Undergraduate Enrollment Requirements—2.5

Cumulative GPA

Pre-Architecture Year Two**General Education—8**

PHYS141, PE Elective, Religion Elective

General Elective—2**Architecture Core—22**

ARCH201, 202, 215, 247, 315, 316

Continued Undergraduate Enrollment Requirements

Application to continue undergraduate program

1. Application and \$40 fee
2. Cumulative GPA of 2.75
3. Portfolio
4. Three letters of recommendation (two must be from academic sources)
5. Letter of Intent
6. Official transcripts (transfer students only)
7. Acceptance into Professional Degree Track

Professional Track Years Three & Four**General Education—9**

ENGL215, Religion electives

Architecture Core—52

ARCH205, 305, 318, 320, 335, 336, 370, 434, 435, 441, 442, 449, 459

Summer Abroad—6

ARCH330

Architecture Electives—7**Total Credits for BSA Degree—138**

Summer Abroad. Each student is required to attend the Summer Abroad Program offered every summer. This program is usually five weeks in duration. Students completing Architecture Year Three should make plans accordingly. For further information, consult the School of Architecture.

Architecture Electives. Of the 7 undergraduate and 14 graduate credits, a minimum of 2 credits are required in Community Project.

Graduate-Year Enrollment

Graduate Admission Requirements. In addition to meeting the General Minimum Admission Requirements for graduate degree programs on p. 44, the following School requirements apply to the graduate phase of this program. (These are subject to change by action of the School's Academic Policies and Curricula Committee.)

1. Completion of a baccalaureate degree—BSA: Architecture.
2. Successful completion of all undergraduate coursework with a minimum cumulative GPA of 2.75.

MArch Professional Degree**Architecture Core—16**

ARCH521, 522, 535

Architecture Electives—14

A minimum of 14 credits of architecture electives at the graduate level. Selection of electives outside of School offerings requires the approval of the School faculty.

Continued Graduate Enrollment Requirements

1. No grade lower than C (2.00) in any course in the graduate portion of the program.
2. A student whose cumulative graduate GPA falls below 3.0 in any given term is placed on academic probation. A student is normally disqualified if they do not increase their graduate GPA to 3.0 during the academic term of probation.

3. A minimum cumulative GPA of 3.0 is required to receive the Master of Architecture degree.

MArch 3½ Year Track**Architecture Core—88**

ARCH150, 201, 202, 205, 247, 305, 315, 316, 318, 320, 335, 336, 370, 434, 435, 441, 442, 449, 459, 521, 522, 535

Architecture Electives—14

Recommended Prerequisite—ARCH126 is recommended, or may be required at the discretion of the Admissions Committee.

Total Credits for 3½ Year MArch Degree—102**BS: Architectural Studies (Non-Professional)****BS Core—38****General Education—57**

See general education requirements for BS degree, p. 42.

Major Requirements—17

ARCH126, 150, 215, 315, 316

Major Electives—21

A minimum of 9 upper division credits from courses with ARCH acronyms.

Cognate Requirements—6

ART104, 207

Minor Requirements—22**General Electives—5****Total Credits for the BS Degree—128****Minor in Architectural Studies (23)**

ARCH126, 150, 215; plus 12 additional credits with a minimum of 6 upper division credits from courses with ARCH acronyms.

Courses**(Credits)**

See inside front cover for symbol code.

ARCH126**\$(3)*****Drawing and Graphics Studio***

Introduction to freehand drawing and architectural drawing graphic conventions. Exercises include freehand and drafted drawings of building plans, sections, and elevations, and an introduction to three-dimensional representation. *Spring, Summer*

ARCH150**(3)*****Introduction to Architecture***

Emphasis on design concepts, professional vocabulary, historical appreciation, contemporary issues, and values that are important to the mission of the School of Architecture. Open to all students. *Fall*

ARCH201**\$(3)*****Construction I***

An overview of site work, foundation, and structural systems as well as an investigation into the structural and material properties, assembly methods and detailing primarily for wood and masonry construction system. *Fall*

ARCH202**(3)*****Construction II***

An investigation into the structural and material properties, assembly methods and detailing primarily for steel and

concrete construction systems as well as an introduction to cost estimating. Prerequisite: ARCH201. *Spring*

ARCH205 (4)
Structures I

Structural theory: statics by analytical and graphical solutions. Determinations of loads, resolution of force systems, and equilibrium analysis. Structural properties of shape (centroids, moment of inertia) and materials (stress, stiffness, modulus of elasticity). Shear and bending moments, deflection, column theory, introductory awareness of structural system behavior. Analysis and design of wood structures (joists, girders, columns). Introduction to the structural design process. Prerequisites: MATH168 & PHYS141. *Fall*

ARCH215 (5)
Introduction to Design Studio

Introduction to formal composition, architectural typology and principles of building context in the design of buildings and artifacts with simple program elements. Minimum cumulative GPA of 2.5. Prerequisite: ARCH126. *Fall*

ARCH247 \$ (5)
Architecture as Craft Studio

Design projects focusing on the materiality of architecture and the logic of construction. Prerequisites: ARCH215. *Spring*

ARCH299 (1-4)
Independent Study

Study of special topics not currently offered by the School of Architecture. In consultation with a professor, the student researches a selected area, filing a copy of the completed project report in the School of Architecture office. A minimum of 30 hours of work required for each credit. May be repeated for a total of 6 credits.

ARCH305 (4)
Structures II

Structural problems in steel analysis and principles of concrete and masonry, lateral loads due to wind and seismic forces. Prerequisite: ARCH205. *Spring*

ARCH315 (3)
History of Architecture I

Chronological overview of the history of architecture from pre-history through the 14th century (Gothic). Emphasis is on the vocabulary and design of buildings, their symbolic relationships, and their meaning in a cultural and human context. Prerequisites: HIST117, 118 & ENGL115. *Fall*

ARCH316 (3)
History of Architecture II

Chronological overview of the history of architecture from the 15th century (Renaissance) to today. Emphasis is on the vocabulary and design of buildings, their symbolic relationships, and their meaning in a cultural and human context. Prerequisites: HIST117, 118 & ENGL115. *Spring*

ARCH318 (5)
Background Building Studio

Design of a commercial and/or residential building(s) of increased programmatic complexity, in the physical and cultural setting of a traditional small town or urban neighborhood. Prerequisite: ARCH320. *Spring*

ARCH320 \$ (5)
Placemaking Studio

The design of buildings as it relates to landscape and to human experience with increased complexity of program and form. Prerequisites: ARCH247, admission to the Professional Degree Track. *Fall*

ARCH330 \$ (6)
Analytical Summer Abroad

A course focusing upon study, analysis, and documentation of buildings, spaces, and/or gardens in another country. Venues may change from year to year. Prerequisite: ARCH318. *Summer*

ARCH335 (4)
Environmental Technology I

Introduction to environmentally, energy-conscious design concepts with the primary focus on climate and site analysis. An overview of standard evaluation methods for thermal performance in both design development and qualitative building evaluations covers heat loss/gain, thermal and solar envelope, HVAC system selection and layout. Principles of water conservation, collection and supply, and the treatment and disposal of liquid and solid wastes. *Fall*

ARCH336 (4)
Environmental Technology II

Principles of design for fire safety and code compliance. Principles of electricity and a brief survey of electrical systems and wiring design. The design and location requirements of elevators and moving stairways and walks. A qualitative overview of lighting and acoustics and their integration into the design of buildings with introductory quantitative methods. Prerequisite: PHYS141. *Spring*

ARCH370 \$ (3)
Person-Environment Theory

Studies in the relationship between people and the environment, including a consideration of towns, cities, gardens, buildings, and artifacts, as well as the cultural and natural landscape. Prerequisite: ARCH320.

ARCH390/485 \$ ♦ (1-4)
Special Topics in _____

Based on selected topics of current interest in architecture offered by the School of Architecture. May be repeated in different topic areas. Topics include, but are not limited to: Architecture of the Ancient Americas, Islamic Architecture, Furniture Design, Surveying.

ARCH395/595 S (1-6)
Community Project in Architecture

"Hands-on" involvement in humanitarian and/ or service oriented projects in an on-site work environment. Work initiated by students requires prior approval of faculty. Graded on S/U basis. May be repeated for up to 6 credits.

ARCH396 (1-6)
Cooperative Work Experience

Supervised work with an architecture or construction firm. 120 hours of work is required for each credit. May be repeated up to 6 credits. Prerequisites: 3rd year standing and application one semester in advance of the planned work. Graded on S/U basis.

- ARCH424** ♦ (2, 3)
Islamic Architecture
 A focused view on the period of architectural history known as Islamic Architecture. Covers the beginnings of Islamic period from 600 CE to the present time, looking at Islamic buildings from all parts of the world. Prerequisites: ARCH315 & 316.
- ARCH425** ♦ (2, 3)
Architecture of Ancient Americas
 A focused view of the architectural history that covers ancient North, Central and South Americas. Covers the vernacular architecture and art of the Native American cultures. Prerequisites: ARCH315 & 316.
- ARCH426** ♦ (2, 3)
Far Eastern Architecture
 A focused view of the architectural history that covers ancient Far East. Covers the vernacular architecture and art from India to China, Japan and the Southeast Asian cultures. Prerequisites: ARCH315 & 316.
- ARCH434** \$ (3)
Urban Studies
 A broad survey, both typological and historical, of the physical characteristics of cities and their development, with an emphasis upon urban form as a cooperative human artifact embodying particular cultural values and ideas. Prerequisites: ENGL115; HIST117, 118. *Spring*
- ARCH435** (3)
Introduction to Building Information Modeling
 An introduction to Building Information Modeling (BIM) using Autodesk REVIT software. Corequisite: ARCH441, 449. *Fall*
- ARCH441** \$ (5)
Foreground Building Studio
 Design of a public and/or civic building in the physical and cultural setting of a traditional small town or urban neighborhood. Prerequisite: ARCH205, 318, 330; Corequisite: ARCH435, 449. *Fall*
- ARCH442** (6)
Integrative Design Studio
 Comprehensive building design project: site design, building design, and development of architectural detail (including integration of materials and structural and environmental systems). Prerequisite: ARCH441. *Spring*
- ARCH445** ♦ (2)
Furniture Design
 An exploratory course that prepares individuals to apply technical knowledge and skills to prepare and execute furniture design projects from assemblage to finish. Incorporates the safe use of a variety of hand and power tools and machinery. Projects vary according to the individual skill level of the student. May be repeated for up to 4 credits.
- ARCH449** (3)
Integrative Design
 Preliminary design of the structure and environmental control systems for a concurrent studio project. Building codes, accessibility standards, and zoning ordinances are reviewed for design implications. Prerequisite: ARCH205; Corequisite: ARCH435, 441. *Fall*
- ARCH450** ♦ (4)
Applied Structures
 Application of the principles of statics and strength of materials to the design of reinforced concrete and masonry structures. Lateral forces, wind and seismic loads, and the structural divisions of the Architect's Registration Examination will be reviewed. Prerequisite: ARCH205. *Spring*
- ARCH459** (3)
Design Theory
 A survey and analysis of architectural thought, including readings from both historical and contemporary sources. Prerequisite: ARCH315. *Spring*
- ARCH480** ♦ (1-3)
Architectural Community Service
 Design of community service or architectural mission projects. May also include pre-construction management work associated with mission projects. Work initiated by students requires prior approval of faculty. May be repeated for up to 6 credits. Prerequisite: ARCH247.
- ARCH499** (1-4)
Independent Research
 Study of special topics not currently offered by the School of Architecture. In consultation with a professor, the student researches a selected area, filing a copy of the completed project report in the School of Architecture office. A minimum of 30 hours of work required for each credit. May be repeated for a total of 6 credits.
- Graduate**
- ARCH521** (6)
Urban Design Studio
 Urban design proposal for a small town (or parts thereof), urban neighborhood, or college campus. *Fall*
- ARCH522** \$ (6)
Visiting Critic/Topic Studio
 Design project(s) to be determined by Visiting Critic and regular faculty. Topic of studio varies. Prerequisite: ARCH521. *Spring*
- ARCH530** \$ (6)
Analytical Summer Abroad
 A course focusing upon study, analysis, and documentation of buildings, spaces, and/or gardens in another country. Venues may change from year to year. Prerequisite: ARCH318. *Summer*
- ARCH535** (4)
Professional Practice
 Lectures and seminars focusing on Judeo-Christian values and social responsibilities in the profession. Studies introduce conventional practice methods and career planning for present and future. Topical areas include the role of the architect, organization and management of the firm, and project administration. *Fall*
- ARCH599** (1-4)
Independent Research
 Study of special topics not currently offered by the School of Architecture. In consultation with a professor, the student researches a selected area, filing a copy of the completed project report in the School of Architecture office. A minimum of 30 hours of work required for each credit. May be repeated for a total of 6 credits.