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BSA: Bachelor of Science in Architecture	224
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MArch: Master of Architecture	225
BS: Architectural Studies (Non-Professional)	225
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# SCHOOL OF ARCHITECTURERT & DESIGN

Carey C. Carscallen, Dean Paula L. Dronen, Assistant Dean

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www.andrews.edu/saad

The School of Architecture, Art & Design is comprised of the professional degree programs Master of Architecture (5½ year and 3½ year tracks), Bachelor of Interior Design and Bachelor of Science in Construction Management, and the Department of Visual Art & Design.

#### **Architecture 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)	
BSA: Architecture	138
MArch (Professional Degree)	30
BS: Architectural Studies (Non-Professional)	128
BID: Bachelor of Interior Design	133
BSCM: Construction Management	137
Minor in Architectural Studies	23

#### Mission

The architecture faculty aspires to teach sound thinking, practical skills, and rigorous scholarship in the discipline of architecture; and promotes students 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 2012–2013

May 25, 2013 Deadline for application to BSA professional

degree track, BID and BSCM programs. (Currently enrolled students and transfer students seeking studio placement.)

#### Master of Architecture (31/2-Year Track) Application Deadlines

Sept 15, 2012 For January 2013 admission Feb 14, 2013 For summer or fall admission

#### 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, Art & Design students outlining policies, operational guidelines, and general information is available from the School office. Students are responsible for all policies outlined in the School of Architecture, Art & Design Student Handbook.

#### Computer Policy

The programs in architecture, interior design and construction management regard 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 office and must be consulted when purchasing a laptop.

## **Programs**

#### Master of Architecture

The School of Architecture, Art & Design offers two tracks that lead to the professionally accredited Master of Architecture—the  $5\frac{1}{2}$ -Year Professional Degree Track and the  $3\frac{1}{2}$ -Year Professional Degree Track. These two tracks are outlined below.

#### 51/2-Year Professional Degree Track

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

31/2-Year Professional Degree Track

Master of Architecture (31/2-Year Professional Degree)

Pre-Professional Year Two

#### Summer-4

PHYS141

#### General Education-4

PE Elective, Religion Elective

#### Core-22

ARCH201, 202, 215, 247, 485, BSCM101, 207

#### Minor Requirements-6

ACCT121, 122

#### **Continued Undergraduate Enrollment Requirements**

- 1. Application and \$40 fee
- 2. Cumulative GPA of 2.75
- 3. Portfolio (Optional)
- 4. Three letters of recommendation (two must be from academic sources)
- 5. Letter of Intent
- 6. Official transcripts (transfer students only)
- 7. Work Experience: 100 hours of documented work experience in construction
- 8. Acceptance into Professional Degree

#### Professional Years One & Two

#### **General Education—9**

ENGL215, Religion electives

#### Core-39

ARCH435; BSCM215, 301, 302, 325, 349, 365, 401, 402, 410, 420, 430, 445, 455, 465

#### Summer-6

ARCH395

#### Minor Requirements-15

BSAD341; ECON225, 226; Upper Division electives

#### Work Experience-500 hours

500 hours of documented work experience in construction

#### **Total Credits for BSCM—137**

**Summer Abroad.** Each student is required to take ARCH395 Community Project in Architecture during a summer following Pre-Professional Year Two. A minimum of 6 credits must be earned.

Work Experience. As indicated above, students pursuing the BSCM must document 600 hours of work experience in the construction industry. 100 hours must be obtained prior to applying to the professional degree program and an additional 500 hours must be obtained prior to graduation. Please see School for Work Experience Requirement Form.

#### 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.

#### Architecture

ARCH126

\$ (3)

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)

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

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 systems. Fall

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

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 intertia) 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

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vary according to the individual skill level of the student. May be repeated for up to 4 credits.



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; Corequisites: ARCH435, 441. Fall

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

A survey and analysis of architectural thought, including readings from both historical and contemporary sources. Prerequisite: Spring

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direct and indirect costs, methods of estimating time, materials, equipment, subcontractors' work, general expenses, and profit, bid preparations and submission, and computer applications. Prerequisite: BSCM301



The study of typical construction materials as used in the design process. Concrete, wood, steel and composite structures and underlying mechanical and physical properties will be covered. Prerequisites: MATH168, PHYS141

## BSCM349 (3)

This course examines construction documents for competitive bidding and execution of projects. Light and heavy construction types will be examined.

### BSCM365 (2)

The study of critical aspects of site construction and surveying relating to on-site logistics.

## BSCM401 t (3)

Construction management concepts and practices, the management system, construction planning and programming, project control, environmental management, total quality management, and ethics in construction management.

## BSCM402 t (3)

A management course in contract documents, safety, planning, scheduling, production control, and law and labor. Topics include contracts, planning, cost and production peripheral documents, and cost and work analysis, scheduling, material handling, layout, payment scheduling, and inspections.

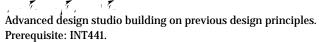
#### BSCM410 **t** (2)

Construction planning, scheduling, and communications required for project control, the practical and legal implications of each, as well as introduction to the use of scheduling software, and its benefits.

## BSCM420 t (2)

Study of the United States legal system and contractual issues that are significant to construction managers, and addresses ethics in the construction industry. Legal issues gnifiainpd(5)mana)

BCM420 t (3)



**INT442** 

**BSCM445** 

For X and X are the following information Model that incorporates cost data, used for quantity takeoff and cost estimating. Prerequisite: ARCH435

**INT435** (3) 115-, 6

This course explores standard business procedures commonly associated with the practice of interior design. Students will study various types of design practices, financial management and compensation, ethical practices, professional development, legal liability, and issues related to licensing and certification. The management of a typical interior design project will be studied, including writing proposals and contracts, specifications, bidding procedures, budgets, construction schedules, contractor negotiations and collaboration, and project administration. **VISUAL** ART & DESIGN

## **VISUALART & DESIGN**

Art and Design Center, Room 111

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