

# ARCHITECTURAL DRAFTING & DESIGN (ARCH), AAS

At Dunwoody College of Technology, the Associate of Applied Science degree in Architectural Drafting & Design trains students to become ideal employees in the architecture, building design, digital fabrication, and computational design industries.

Students develop skills in a wide array of design technologies including sketching, drawing, manual drafting, digital drafting, physical modeling, digital and parametric modeling, building information modeling, architectural visualization, and digital fabrication. Students acquire a strong knowledge of building technologies including structural systems, building envelope systems, building service systems, building environment systems, building codes, and project management.

Students also develop professional skills through portfolio and project management courses, opportunities for governance, and frequent interaction with professionals in and out of the classroom.

Concurrently, students engage in Arts & Sciences courses in oral and written communications; math and science; social and behavioral studies; and the arts and humanities.

Credits earned in the Architectural Drafting & Design AAS directly transfer into the following Dunwoody programs

- Bachelor of Architecture (BARCH) (<https://catalog.dunwoody.edu/catalog-student-handbook/academic-programs/construction-sciences-building-technology/architecture-barch-bachelor-architecture/>)
- Business Management & Leadership (AMGT) (<https://catalog.dunwoody.edu/catalog-student-handbook/academic-programs/business/business-management-leadership-amgt-bs/>)

**Credential Earned:** AAS

**Length of Program:** 2 years (4 semesters)

**Classes Offered:** Day

**Available Starts:** Fall Semester; Spring Semester

**Accreditation:** NAAB: National Architectural Accrediting Board (as part of the 5 year BARCH)

## Program Outcomes

The program learning outcomes in this program are aligned with, or come directly from, the standards set forth by its specialized accreditor.

- 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.
- 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.
- 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.

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

## Degree Requirements

Code	Title	Credits
<b>General Requirements</b>		
ARTS1000	Introduction to Drawing	3
	Communications	3
	Natural Sciences/Mathematics	3
	Social Sciences	3
	General Electives	3
<b>Technical Requirements</b>		

ARCH1111	Architectural Drawing	5
ARCH1121	The Site	3
ARCH1131	Building Systems	3
ARCH1141	The Profession	1
ARCH1211	Construction Drawings	5
ARCH1221	Building Details	3
ARCH1231	Building & the Environment	3
ARCH2111	Construction Documents	5
ARCH2122	Building Materials	3
ARCH2131	Building Regulations	3
ARCH2211	Capstone	5
ARCH2221	Portfolio	3
ARCH2231	Building Economics	3
<b>Total Credits</b>		<b>60</b>

## Courses

### Descriptions

#### ARCH1111 | Architectural Drawing | Studio (5 Credits)

Engage in a breadth of architectural representation and design technologies. Develop skills in architectural communication, professionalism, learning culture, and technological agility.

#### ARCH1121 | The Site | Lecture (3 Credits)

Analyze the relationship between a building site and its physical, cultural, and environmental contexts. Develop technical abilities for site design and documentation.

#### ARCH1131 | Building Systems | Lecture (3 Credits)

Analyze a breadth of building systems and their associative materials and assemblies. Analyze the basic principles of building structural and envelope systems.

#### ARCH1141 | The Profession | Seminar (1 Credit)

Engage in the profession of architecture and acquire knowledge of architectural licensure, career paths, and forms of practice. Develop proficiency in professional communication and behavior.

#### ARCH1211 | Construction Drawings | Studio (5 Credits)

Create and coordinate a set of construction drawings. Develop visual communication, organization, and time management skills. Explain and apply systems of building information management.

**Prerequisite(s):** ARCH1111

#### ARCH1221 | Building Details | Lecture (3 Credits)

Analyze and develop critical intersections of building systems. Explain the relationship among systems. Identify the relationship between details and design intent.

#### ARCH1231 | Building & the Environment | Lecture (3 Credits)

Analyze varying building systems, their relationship to climate change, their integration into buildings, and their standards for documentation. Develop skills for design and documentation of ecologically sustainable building systems.

#### ARCH2111 | Construction Documents | Studio (5 Credits)

Create and develop building construction drawings and specification. Apply building regulations and codes to inform design development. Engage in collaborative building information management.

**Prerequisite(s):** ARCH1211

#### ARCH2122 | Building Materials | Lecture (3 Credits)

Analyze varying building systems details, material selections, and their specification standards. Develop skills for detailing, documenting, and specifying building materials.

#### ARCH2131 | Building Regulations | Lecture (3 Credits)

Examine the design implications of building regulations. Research building codes, zoning ordinances, and other regulatory factors. Explain the role of building regulations to public health. Analyze and apply building regulations to specific building conditions.

#### ARCH2211 | Capstone | Studio (5 Credits)

Engage in the design process and communicate design intent through architectural representation and construction documentation.

**Prerequisite(s):** ARCH2111

#### ARCH2221 | Portfolio | Lecture (3 Credits)

Create a curriculum vitae and portfolio of work suitable for entry into the profession and advancement in education. Expand professional behavior and communication skills.

#### ARCH2231 | Building Economics | Lecture (3 Credits)

Analyze and create building construction cost estimation. Explain and model building life cycle costs. Identify the relationship between whole building costs and climate change.

#### ARTS1000 | Introduction to Drawing | Lecture (3 Credits)

Analyze basic drawing concepts and techniques through demonstrations, discussions, critiques, slide lectures, and the use of a sketchbook. Work from observation using line, tone and other elements of art to solve spatial, compositional and light problems to accurately render the illusion of 3-dimensional form on a 2-dimensional surface.

**General Education:** Humanities