

DRAFTING AND DESIGN TECHNOLOGIES

Associate of Applied Science Degrees

- Architectural Technology
- Civil/Survey Technology
- Mechanical Drafting and Solid Modeling
- Pre-Architecture
- Surveying Technology

Certificates of Completion

- Architectural Technology
- Civil/Survey Technology
- Drafting and Graphics
- Geographical Information Systems
- Mechanical Drafting and Solid Modeling
- Pre-Architecture

The Drafting and Design Technologies Program provides students with a strong foundation in Computer-Aided Drafting (CAD), Architecture/Design, and relevant theory and concepts necessary to become successful in various related fields. These fields include

- Architecture,
- Architectural Technology,
- Civil/Survey Technology,
- Mechanical Drafting and Solid Modeling, and
- Surveying/Geomatics

Excellent job and salary opportunities are available nationwide for Drafters/CAD specialists, technicians, architects, and engineers. With its rapid growth, Southern New Mexico has strong employment possibilities for graduates of the Drafting and Design Technologies Program. Students with previous related training and/or formal education may qualify for more advanced positions, such as construction inspector or supervisor, contractor, or senior drafter.

Within the Drafting and Design Technologies Program are five courses of study leading to associate of applied science degrees. These allow students to tailor their studies to their own interests and career aspirations.

- **Architectural Technology:** Architectural 2D and 3D drafting, residential design, construction estimating, construction technology, architectural rendering and animation, green building (LEED), and Building Information Modeling (BIM)
- **Civil/Survey Technology:** Civil engineering drafting, surveying fundamentals, roadway construction drafting, land development drafting, and GIS training
- **Mechanical Drafting and Solid Modeling:** Mechanical drafting, machine/manufacturing fundamentals, basic mechanical design, parametric solid modeling, and animation
- **Pre-Architecture:** Architectural theory and drawing; design studio/culture; architectural history; computer applications; introduction to construction principles and construction documents; and presentation techniques.

- **Surveying Technology:** Survey engineering drafting, surveying fundamentals, geographical information systems, digital mapping, and programming.

While pursuing this program, whether taking classes or working in a co-op position, students will be required to perform the same job duties and be able to meet the same physical requirements that they will as a graduate in the field including working at a computer for an extended period of time and the ability to lift 25 to 50 pounds. Courses, as well as careers, in Drafting and Design Technologies will require a person to be able to work at computers, communicate verbally and in writing, and participate in an online environment.

Students in all Drafting and Design Technologies options are required to own or purchase a **windows-based computer or laptop** with a webcam and microphone, at an approximate cost of \$1,400, that is capable of running the software packages utilized in the program. For minimum computer or laptop technical specifications and requirements, students should contact the department. Drafting and Design Technologies students are also required to have and maintain reliable broad-band internet access. In addition to required textbooks, Drafting and Design Technologies students should also expect to purchase drawing/sketching tools and supplies, architect's and engineer's scales, external hard-drives (or other similar file backup devices), website and/or software subscriptions and other related supplies at an approximate cost of \$100 per semester on average.

Future students who are still in high school are encouraged to take courses in mathematics, science, English, and drafting/CAD. Furthermore, dual credit opportunities are available for high school students who wish to earn college credit while still in high school. These credits may apply to their high school credit requirements as well as DACC Drafting and Design Technologies requirements. (For more information, refer to the section titled, "Dual Credit Program (<http://catalogs.nmsu.edu/dona-ana/general-information/dual-credit-program/>)," within this catalog.)

Pre-Architecture Program Overview

Students planning to pursue a professional career in architecture may find it more convenient and economically advantageous to begin their studies closer to home. The DACC Pre-Architecture program, which culminates in an associate of applied science degree, consists roughly of the first two years of a standard, bachelor's degree curriculum in architecture. Currently, the most popular transfer universities for DACC Pre-Architecture students are the University of New Mexico and Texas Tech University. Both offer in-state tuition rates and have signed articulation agreements with DACC providing for the smooth and efficient transfer of credits.

However, acceptance into a transfer university's architecture program is not automatic nor is it guaranteed. Students must follow the regular application procedures of the chosen university.

In addition, DACC cannot guarantee placement into a transfer university's architecture program at any particular level, as such matters are totally dependent on how the university in question may evaluate transcripts, portfolios and other required materials against its own acceptance criteria. For example, in order to be accepted at UNM, a final grade of *B-* or better is required in ARCH 1120 Introduction to Architecture and ARCH 1110 Architectural Drawing, and a final grade of *C-* or better is required in all other courses in the DACC Pre-Architecture curriculum.

Potential architecture students should contact a Pre-Architecture advisor at DACC for assistance with course scheduling and transfer procedures (575) 527-7592.

Students in the Pre-Architecture Program are required to purchase a **windows-based computer or laptop** with a webcam and microphone, at an approximate cost of \$1,400, that is capable of running the software packages utilized in the program. For minimum computer or laptop technical specifications and requirements, students should contact the department. Drafting and Design Technologies students are also required to have and maintain reliable broad-band internet access. In addition to required textbooks, Pre-Architecture students should also expect to purchase drawings tools, model-making materials, and other art-related supplies at an approximate cost of \$200 per semester on average.

Credit Transfer to Bachelor's Degrees in Engineering Technology or Geomatics at NMSU

The Architectural Technology, Civil/Survey Technology, Mechanical Drafting and Solid Modeling, and Surveying Technology associate degree programs include courses that allow students to earn credits that may be transferable into one of the engineering technology or geomatics programs offered by NMSU. These courses allow students to maximize the number of credits applicable to an NMSU Engineering Technology or geomatics program, while also making it possible to earn an associate degree for immediate employment in a drafting related field. Students should contact a Drafting and Design Technologies program advisor for the most current information and requirements related to these credit transfer opportunities (575) 527-7592.

Additional Program Information

Students in the Drafting and Design Technologies options or Pre-Architecture program receive training from highly qualified faculty through online instruction and/or in modern classrooms and laboratories equipped with the latest in computers, peripheral equipment, and professional software. The Drafting and Design Technologies program is housed at the DACC East Mesa Campus.

Classes are scheduled during the day and evening hours, as well as during the summer, to serve both full- and part-time students, including local high school students who are participating in the dual credit enrollment program. Courses are available at the various DACC locations, as well as selected high schools in the area. In the case of the Drafting and Design Technologies options, the majority of classes are delivered online, allowing the students to pursue a certificate of completion or degree through distance education. For information about availability and delivery format of specific classes or degree options students should contact the department.

Students also have the opportunity to gain professional development and leadership skills through student organizations. These student organizations are affiliated with at least one of the following:

- American Design Drafting Association (ADDA),
- SkillsUSA,
- National Association of Home Builders (NAHB), and
- American Institute of Architecture Students (AIAS).

Students actively participate in numerous events and activities. Members also take part in activities sponsored by other professional associations, recruiting at high schools, and participating in community service

projects. Students can compete in statewide and nationwide drafting contests sponsored by SkillsUSA and other organizations.

Additional Graduation Requirements

A final grade of C- or better is required in all DRFT courses. A final grade of C- or better is required in ENGL 1110G Composition I. A final grade of B- or better is required in ARCH 1120 Introduction to Architecture and ARCH 1110 Architectural Drawing; in all other ARCT courses, a minimum final grade of C- is required.