

Architectural Technology

Degree Awarded: Associate in Applied Science

Recommended Course Sequence

First Semester	Credits
ENG 101 Freshman English 1	3
MAT 107 Technical Math 1	3
CAD 101 Introduction to CAD	3
ARC 101 Architectural Graphics	3
ARC 105 Bldg Materials & Methods 1	2
ARC 111 Architectural Design 1	3
Second Semester	
ENG 102 Freshman English 2	3
CAD 102 Computer Aided Drafting 2	2
ARC 102 Advanced Arch. Graphics	3
ARC 106 Bldg Materials & Methods 2	4
ARC 112 Architectural Design 2	3
ARC 215 Architecture to the 18th Century	3
Third Semester	
_____ Social Science Elective	3
PHY 111 Applied Physics 1	3
ARC 211 Architectural Design 3	3
ARC 205 Working Drawings 1	3
ARC 201 Digital Portfolio	1
ARC 216 Architecture from the 19th C	3
PES 100 Concepts of Physical Wellness	1
Fourth Semester	
_____ Social Science Elective	3
ARC 220 Mechanical and Electrical Equip.	3
ARC 206 Working Drawings 2	4
ARC 212 Architectural Design 4	4
ARC 221 Strength of Materials	3
PES ____ Physical Education	1

Total Credits: 70

Program Description

The Associate in Applied Science degree program in Architectural Technology prepares graduates to enter the workforce as architectural team members. While other opportunities exist, the largest job opportunities are positions as interns / CAD operators for architectural firms. Graduates' skills will prepare them to produce working drawings in a variety of settings, such as engineering firms or manufacturers. If graduates have field experience in a building trade, all program outcomes are directly transferable to entry-level positions in construction management and supervision. A broad cross-section of course content is covered in the program; this familiarizes students with many aspects of the architectural profession, the work of building professionals and the construction process.

When working under the supervision of a licensed professional (i.e. Registered Architect, Professional Engineer, etc.), a graduate's primary responsibilities would include measuring and documenting existing conditions of buildings and sites, preparing construction documents, interpreting construction documents, preparing design presentations for clients or other audiences, and coordinating architectural drawings with consultants' drawings.

Fluency with computer-aided drawing (AutoCAD) and computer literacy, as it applies to generating architectural drawings, are fundamental skills graduates will possess. Meanwhile, freehand sketching is stressed wherever possible as a valuable communication method. Beyond preparing construction drawings, students will build models, prepare reports and orally present their work to groups.

Most courses in the program are a combination of lecture and lab. In the lecture component, foundational material is presented, often accompanied by samples, examples or other visual cues. In the lab component, students will either work on short-term exercises designed to hone very specific knowledge bases or skills or they will work on long-term projects designed to simulate the types of projects that they will eventually encounter in the workforce. Students should be prepared to spend a significant amount of time on projects outside the classroom.

Many students who enter this degree program plan to transfer to an upper division institution. Because these opportunities exist, second year students who intend to transfer should select their courses in careful consultation with their academic advisor. Portfolio production will be required.

For those students wishing to become Registered Architects, New York State Department of Education guidelines must be followed. To become a Registered Architect, one must earn an NAAB-accredited Bachelor of Architecture or Master of Architecture degree, fulfill NCARB internship requirements (a proscribed three year apprenticeship), and pass a challenging and comprehensive licensing examination.

For those students wishing to pursue baccalaureate degrees in Landscape Architecture and Construction Management, an A.S. degree from SUNY Orange with electives from the Architectural Technology degree program may be most suitable. Course selection should be made carefully in consultation with academic advisors.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (GEDs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Maintenance of a C average or better in courses in the major is also required.

Student Learning Outcomes

Students will:

- demonstrate an understanding of building materials and methods.
- graphically communicate architectural forms and building assemblies, both two and three dimensionally.
- demonstrate fluency using AutoCAD software to produce architectural drawings.
- demonstrate an ability to visualize and manipulate three dimensional spaces.
- demonstrate an appreciation for basic forms of architectural problem solving and aesthetic appreciation.
- demonstrate an understanding of the need for architectural projects to coordinate with related professions (e.g. various forms of engineering).
- demonstrate an understanding of fundamental structural principles.
- demonstrate an understanding of basic life safety issues in buildings and an ability to apply regulatory requirements to building projects.
- utilize research from electronic and other sources (e.g. Sweet's catalog or manufacturers' literature) in architectural projects.
- identify basic methods of sustainable building practices and environmental impacts of architectural choices.
- demonstrate an understanding of the historical and social context of the development of western architecture.

Career Opportunities

- architectural firms
- engineering firms
- manufacturing firms
- construction firms
- governmental agencies
- utility companies

Transfer Opportunities

While the A.A.S. degree leads to immediate employment, SUNY Orange students have successfully transferred to:

- Alfred State College
- New York Institute of Technology
- New Jersey Institute of Technology
- Pratt Institute
- SUNY Environmental Science and Forestry

Contact Information

Science, Engineering and
Architecture Department Chair
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