Academic Plan - Associate of Applied Science - Architectural Studies - Architecture Technician

# Credits: 61

# Catalog Year: 2020/2021

The Associates of Applied Science of Architectural Studies at Arapahoe Community College offers two concentrations:

* Pre-Architecture - For students interested in licensure and continuing their education
* Architecture Technician - For students wishing to enter the profession upon graduation from this program

Students will be introduced to a wide range of architectural and construction topics such as design and modeling concepts, structural analysis, building service systems, and sustainability.

The Architectural Engineering degree provides a foundation for transfer to university or, in combination with out internship and certificate programs, will help facilitate entry into or continuing education for the profession.

# Required Courses

## A - General Education Courses:

* COM 115 - Public Speaking\* 3 Credits
* ENG 121 - English Composition I: GT-CO1\* 3 Credits
* MAT 121 - College Algebra: GT-MA1\*4 Credits
* MAT 122 - College Trigonometry: GT-MA1 3 Credits
* PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1\* 5 Credits

## B - Additional Required Courses:

* AEC 100 - Introduction to Design Theory\* 3 Credits
* AEC 107 - Print Reading Residential/Commercial\* 3 Credits
* AEC 110 - Architectural Design & Modeling\* 4 Credits
* AEC 116 - Building Materials\* 3 Credits
* AEC 206 - Applied Structure Analysis\* 3 Credits
* AEC 208 - Building Environmental Systems I 3 Credits
* AEC 236 - International Building Codes\* 3 Credits
* CAD 101 - Computer Aided Drafting/2D I 3 Credits
* CAD 102 - Computer Aided Drafting/2D II 3 Credits
* CAD 224 - Revit Architecture 3 Credits

## C - Concentration Courses:

* AEC or CAD Elective Course 3 Credits
* AEC or CAD Elective Course 3 Credits
* AEC or CAD Elective Course† 3 Credits
* AEC or CAD Elective Course† 3 Credits

# Pre-Requisites, Co-Requisites, and Recommendations (grade C or better required)

Where requirements are listed as course categories (e.g. Electives, Arts/Humanities) rather than as specific courses, please note that depending upon course choice, pre-requisites may be required.

* AEC 206 - Applied Structure Analysis\*
  + Pre-Requisite: MAT 121 - College Algebra: GT-MA1 or higher
* CAD 101 - Computer Aided Drafting/2D I
  + Requirement: Students must have Windows File Management skills to create file folders, rename files, delete files, copy and move files
* CAD 102 - Computer Aided Drafting/2D II
  + Co-Requisite: CAD 101 - Computer Aided Drafting/2D I OR CAD 105 - AutoCAD for Interiors
  + Requirement: Students must have Windows File Management skills to create file folders, rename files, delete files, copy and move files
* ENG 121: English Composition I: GT-CO1\*
  + Co-Requisite: CCR 094 – Studio 121
* MAT 122 - College Trigonometry: GT-MA1
  + Pre-Requisite: MAT 121 - College Algebra or Higher
* PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1\*
  + Pre-Requisite: MAT 121 - College Algebra or Higher
* AEC 208 - Building Environmental Systems I
  + Pre-Requisite: AEC 116 - Building Materials\*
  + Pre-Requisite: MAT 121 - College Algebra: GT-MA1\*
  + Pre-Requisite: OR Instructor's permission

# Program Outcomes

* Define and differentiate various building materials.
* Locate, explain, and apply building codes.
* Demonstrate the ability to print read.
* Design digital graphics.

# Notes

* \*This course requires college level readiness as measured by Accuplacer, ACT, or SAT scores; approved high school course work that is less than five years old; or successful completion of appropriate college-readiness course.
* † During the summer semester the only AEC course available is AEC 280 - Internship.
* AAA 101 – College 101: Student Experience is required for all new college students seeking degrees or transfer.
* Course availability is subject to change.
* Recommended courses may be listed above for certain electives; consult with the Academic Advising Office
* (advising@arapahoe.edu or 303.797.5664) for additional elective recommendations.
* Refer to 20/21 catalog for specific requirements and important information about this degree.

# Graduation Requirements

To graduate, students must apply for graduation [here](http://www.arapahoe.edu/departments-and-programs/graduation) by the deadline and meet all degree requirements.

# RECOMMENDED COURSE SEQUENCE FULL-TIME TRACK

## Year 1: Fall

* AEC 110 - Architectural Design & Modeling - 4 Credits
* AEC or CAD Elective Course - 3 Credits
  + Recommended Course(s)
    - AEC 216 - Construction Estimating\*
    - AEC 220 - Surveying\*
    - AEC 226 - Construction Scheduling\*
    - AEC 228 - Contracts & The Legal Environment\*
    - AEC 280 – Internship
    - CAD 115 – Sketchup
    - CAD 216 - Advanced Sketchup
* CAD 101 - Computer Aided Drafting/2D I – 3 Credits
* CAD 102 - Computer Aided Drafting/2D II – 3 Credits
* ENG 121 - English Composition I: GT-CO1 – 3 Credits

## Year 1: Spring

* AEC 107 - Print Reading Residential/Commercial – 3 Credits
* AEC 116 - Building Materials – 3 Credits
* CAD 224 - Revit Architecture – 3 Credits
* COM 115 - Public Speaking – 3 Credits
* MAT 121 - College Algebra: GT-MA1 – 4 Credits

## Year 2: Fall

* AEC 100 - Introduction to Design Theory – 3 Credits
* AEC or CAD Elective Course – 3 Credits
  + Recommended Course(s)
    - AEC 216 - Construction Estimating\*
    - AEC 220 - Surveying\*
    - AEC 226 - Construction Scheduling\*
    - AEC 228 - Contracts & The Legal Environment\*
    - AEC 280 – Internship
    - CAD 201 - Computer Aided Drafting / Custom
    - CAD 202 - Computer Aided Drafting / 3D
* MAT 122 - College Trigonometry: GT-MA1 – 3 Credits
* PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1 – 5 Credits

## Year 2: Spring

* AEC 206 - Applied Structure Analysis – 3 Credits
* AEC 208 - Building Environmental Systems I – 3 Credits
* AEC 236 - International Building Codes – 3 Credits
* AEC or CAD Elective Course – 3 Credits
  + Recommended Course(s)
    - AEC 216 - Construction Estimating\*
    - AEC 220 - Surveying\*
    - AEC 226 - Construction Scheduling\*
    - AEC 228 - Contracts & The Legal Environment\*
    - AEC 280 – Internship
    - CAD 115 – Sketchup
    - CAD 216 - Advanced Sketchup
* AEC or CAD Elective Course – 3 Credits
  + Recommended Course(s)
    - AEC 216 - Construction Estimating\*
    - AEC 220 - Surveying\*
    - AEC 226 - Construction Scheduling\*
    - AEC 228 - Contracts & The Legal Environment\*
    - AEC 280 – Internship
    - CAD 201 - Computer Aided Drafting / Custom
    - CAD 202 - Computer Aided Drafting / 3D

# RECOMMENDED COURSE SEQUENCE PART-TIME TRACK

## Year 1: Fall

* AEC 110 - Architectural Design & Modeling – 4 Credits
* ENG 121 - English Composition I: GT-CO1 – 3 Credits

## Year 1: Spring

* AEC or CAD Elective Course – 3 Credits
  + Recommended Course(s)
    - AEC 216 - Construction Estimating\*
    - AEC 220 - Surveying\*
    - AEC 226 - Construction Scheduling\*
    - AEC 228 - Contracts & The Legal Environment\*
    - AEC 280 – Internship
    - CAD 115 – Sketchup
    - CAD 216 - Advanced Sketchup
* CAD 101 - Computer Aided Drafting/2D I – 3 Credits
* CAD 102 - Computer Aided Drafting/2D II – 3 Credits

## Year 1: Summer

* COM 115 - Public Speaking – 3 Credits
* MAT 121 - College Algebra: GT-MA1 – 4 Credits

## Year 2: Fall

* AEC 107 - Print Reading Residential/Commercial – 3 Credits
* AEC 116 - Building Materials – 3 Credits
* MAT 122 - College Trigonometry: GT-MA1 – 3 Credits

## Year 2: Spring

* AEC 206 - Applied Structure Analysis – 3 Credits
* PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1 – 5 Credits

## Year 2: Summer

* AEC or CAD Elective Course† - 3 Credits
  + Recommended Course(s)
    - AEC 216 - Construction Estimating\*
    - AEC 220 - Surveying\*
    - AEC 226 - Construction Scheduling\*
    - AEC 228 - Contracts & The Legal Environment\*
    - AEC 280 – Internship
    - CAD 201 - Computer Aided Drafting / Custom
    - CAD 202 - Computer Aided Drafting / 3D
* AEC or CAD Elective Course† - 3 Credits
  + Recommended Course(s)
    - AEC 216 - Construction Estimating\*
    - AEC 220 - Surveying\*
    - AEC 226 - Construction Scheduling\*
    - AEC 228 - Contracts & The Legal Environment\*
    - AEC 280 – Internship
    - CAD 115 – Sketchup
    - CAD 216 - Advanced Sketchup

## Year 3: Fall

* AEC 100 - Introduction to Design Theory – 3 Credits
* CAD 224 - Revit Architecture – 3 Credits

## Year 3: Spring

* AEC 208 - Building Environmental Systems I – 3 Credits
* AEC 236 - International Building Codes – 3 Credits
* AEC or CAD Elective Course – 3 Credits
  + Recommended Course(s)
    - AEC 216 - Construction Estimating\*
    - AEC 220 - Surveying\*
    - AEC 226 - Construction Scheduling\*
    - AEC 228 - Contracts & The Legal Environment\*
    - AEC 280 – Internship
    - CAD 201 - Computer Aided Drafting / Custom
    - CAD 202 - Computer Aided Drafting / 3D