

Course Name	Introduction to Architecture & Construction			
Course Number	17006			
Code	Current Standard		Code	Revised Standard
IAC1.0	Observe rules and regulations to comply with personal and shop safety		IAC2.0	Introduce safety concepts in the architecture and construction industries
			IAC2.1	Apply general shop safety principles
			IAC2.2	Identify job site and career safety concepts
			IAC2.3	Define OSHA (Occupational Safety Health Administration) and its role in the construction industries
IAC1.1	Apply hand/power tool and shop safety		IAC2.4	Apply general hand and power tool safety procedures
IAC1.2	Identify basic first aid procedures in emergency situations			
IAC1.3	Identify proper terminology and examine career possibilities		IAC1.0	Explore the different career opportunities involved in the architecture and construction industries
			IAC1.1	Compare career possibilities in the drafting industry
			IAC1.2	Investigate and examine career opportunities in cabinetry industry
			IAC1.3	Research career opportunities in the architecture and construction field
IAC 2.0	Study principles, characteristics and standards pertaining to woodworking materials		IAC4.0	Recognize the materials used in the architecture and construction industries
			IAC4.2	Recognize proper application of fasteners, adhesives, and hardware
			IAC4.3	Explore new upcoming materials used in building industry
IAC2.1	Select variations of wood materials		IAC4.1	Identify wood species and engineered building materials
IAC2.2	Describe the basics of math principles		IAC3.0	Apply basic math principles used in the architecture and construction industries
			IAC3.1	Demonstrate proper use of appropriate math skills
			IAC3.2	Demonstrate proper measuring and layout skills
IAC3.1	Integrate woodworking technology to achieve finished woodworking project		IAC6.0	Display skills needed in architecture and construction industries
			IAC6.1	Apply proper measuring and cutting techniques to perform job related tasks
			IAC6.2	Display a working knowledge of tools and equipment used in the industry
			IAC6.3	Construct a project using the assigned design process
			IAC6.4	Demonstrate necessary job skills needed in architecture and construction industries
			IAC5.0	Examine basic drafting skills used in architecture and construction
			IAC5.1	Recognize basic drafting terms and abbreviations
			IAC5.2	Differentiate between different drafting styles
			IAC5.3	Identify different aspects of blueprints/project plans to show a working knowledge of specifications
			IAC5.4	Classify the different styles of residential architectural structures

Course Name	Introduction to Drafting & Design			
Course Number	21102			
Code	Current Standard		Code	Revised Standard
IDD 1.0	Examine basic drafting terminology and equipment		IDD1.0	Examine basic drafting terminology and equipment
IDD1.1	Recognize basic drafting terms and abbreviations		IDD1.1	Recognize basic drafting terms and abbreviations
IDD1.2	Differentiate basic drafting tools and their uses		IDD1.2	Differentiate basic drafting tools and their uses
IDD2.0	Apply basic math skills to design work		IDD2.0	Apply basic math skills to design work
IDD2.1	Apply algebraic and trigonometric formulas used in drafting and design		IDD2.1	Apply algebraic and trigonometric formulas used in drafting and design
IDD2.2	Understand the various drawing scales used in drafting		IDD2.2	Understand the various drawing scales used in drafting
IDD3.0	Examine basic drafting fundamental and technical skills		IDD3.0	Examine basic drafting fundamental and technical skills
IDD3.1	Integrate shapes, lettering and geometric symbology used on technical drawings		IDD3.1	Integrate symbols, lettering and geometric shapes used on technical drawings
IDD3.2	Illustrate line symbols recommended by American National Standard Institute (ANSI)		IDD3.2	Illustrate line types recommended by American National Standards Institute (ANSI)
IDD3.3	Define dimensioning styles and techniques on metric and imperial drawings		IDD3.3	Define dimensioning styles and techniques on metric and imperial drawings
IDD4.0	Apply drawing techniques to produce various technical plans		IDD4.0	Apply drawing techniques to produce various technical plans
IDD4.1	Create orthographic projections		IDD 4.1	Create orthographic projections
IDD4.2	Create isometric and pictorial drawings		IDD4.2	Create isometric and pictorial drawings
IDD5.0	Implement computer aided software into design work.		IDD5.0	Implement computer aided software into design work
IDD5.1	Identify CAD skills and applications of technical design		IDD5.1	Identify CAD skills and applications of technical design
IDD5.2	Apply CAD defaults and preferences to set up a drawing		IDD5.2	Apply CAD defaults and preferences to set up a drawing
IDD5.3	Generate drawings and projections using CAD software		IDD5.3	Generate drawings and projections using CAD software
IDD6.0	Explore career-ready practices		IDD6.0	Explore career-ready practices
IDD6.1	Understand professional drafting practices in the workplace and communication skills		IDD6.1	Understand professional drafting practices in the workplace and communication skills
IDD6.2	Compare career possibilities in the drafting industry		IDD6.2	Compare career possibilities in the drafting industry

Course Name	Architectural Drafting & Design			
Course Number	21103			
Code	Current Standard		Code	Revised Standard
ADD1.0	Understand architectural design fundamental and history		ADD1.0	Understand architectural design fundamentals and history
			ADD1.1	Identify architectural products and styles
ADD1.2	Interpret the fundamentals of framing plans		ADD1.2	Interpret the fundamentals of framing plans
ADD1.3	Identify building codes and governing bodies		ADD1.3	Identify building codes and governing bodies
ADD1.4	Identify residential building materials		ADD1.4	Identify residential building materials
ADD2.0	Understand drawing management, dimensioning, and notations		ADD2.0	Understand drawing management, dimensioning, and notations
ADD2.1	Examine drawing identification and management techniques used in architectural drafting		ADD2.1	Examine drawing identification and management techniques used in architectural drafting
ADD2.2	Illustrate proper dimensioning and notation practices used in architectural drafting		ADD2.2	Illustrate proper dimensioning and notation practices used in architectural drafting
ADD3.0	Develop residential plot and foundation system plan		ADD3.0	Develop a residential plot and foundation system plan
ADD3.1	Create a plot/site plan for a residence		ADD3.1	Create a plot/site plan for a residence
ADD3.2	Design footing and foundation for a residence		ADD3.2	Design footings and foundation for a residence
ADD4.0	Generate the necessary construction plans to build a residence		ADD4.0	Generate the necessary construction plans to build a residence
			ADD4.1	Develop a floor plan using accepted symbols and techniques
ADD4.2	Prepare a working drawing of the residences HVAC, lights and electrical needs		ADD4.2	Prepare a working drawing of the residence HVAC, lights and electrical needs
ADD4.3	Design a residential roof plan		ADD4.3	Design a residential roof plan
ADD4.4	Understand the use of elevations in design of a residence		ADD4.4	Understand the use of elevations in the design of a residence
ADD4.5	Draw interior and exterior stair details appropriate to those found in a residence		ADD4.5	Draw interior and exterior stair details appropriate to those found in a residence
ADD4.6	Develop door, window, and finishing schedules		ADD4.6	Develop door, window, and finishing schedules
ADD4.7	Understand basic estimating practices used in the construction industry		ADD4.7	Understand basic estimating practices used in the construction industry
ADD4.8	Generate final presentation drawings and three dimensional computer model.		ADD4.8	Generate final presentation drawings and three dimensional computer model

Course Name	Cabinetry			
Course Number	17007			
Code	Current Standard		Code	Revised Standard
CM1.0	Observe rules and regulation to comply with personal and shop safety		C1.0	Observe and apply rules and regulations to comply with personal and shop safety
CM1.1	Apply hand/power tool and lab safety		C1.1	Apply hand/power tool and lab safety standards
			C1.2	Describe and wear appropriate personal protective equipment (PPE) when needed
			C1.3	Indicate a knowledge of government regulations regarding health and safety in the shop
CM1.2	Identify basic first aid procedures in emergency situations			
CM2.0	Study principles, characteristics and standards pertaining to cabinetmaking		C4.1	Identify wood species and engineered materials
			C4.4	Identify various types of hardware, fasteners, and adhesives used in the cabinet industry
			C5.0	Recognize various cabinetry joinery and assembly techniques
CM2.1	Select variation of cabinets		C4.0	Identify various materials and apply project planning
CM2.2	Describe the basics of math principles		C3.0	Apply basic math principles used in the industry
			C3.1	Demonstrate proper use of appropriate math skills
			C3.2	Demonstrate an understanding of the difference between board feet and linear feet
			C3.3	Demonstrate proper measuring and layout skills
CM2.3	Identify proper terminology and examine career possibilities		C2.0	Explore the different career opportunities in the industry
			C2.1	Investigate and examine career opportunities in the cabinetry industry
			C2.2	Demonstrate an understanding of necessary job skills needed in cabinetry careers
CM3.0	Integrate cabinetmaking technology to achieve finished woodworking project		C4.2	Analyze design elements of a project plan
			C4.3	Create and implement a bill of materials and cut list from a project drawing
			C5.1	Demonstrate common joinery techniques
			C5.2	Demonstrate knowledge of industry concepts to assemble projects
			C6.0	Recognize and apply surface preparation and finishing techniques
			C6.1	Apply surface preparation techniques
			C6.2	Apply finishing products
CM3.1	Design a blueprint for the finish project		C4.0	Identify various materials and apply project planning
CM3.2	Illustrate the construction of the project			

Course Name	Advanced Cabinetry			
Course Number	17013			
Code	Current Standard		Code	Revised Standard
	No current standards exist		AC1.0	Demonstrate proper rules and regulations to comply with personal and shop safety.
			AC1.1	Apply hand/power/industrial tool and lab safety practices
			AC1.2	Determine and wear appropriate personal protective equipment (PPE)
			AC1.3	Comply with government regulations regarding health and safety in the shop
			AC2.0	Evaluate the career market that surrounds the cabinetry industry
			AC2.1	Acquire career information and demonstrate knowledge of the career-planning process
			AC2.2	Identify individual career goals in the cabinetry industry
			AC2.3	Enhance the development of employment skills
			AC3.0	Utilize advanced math skills, formulas, and principles used in cabinetry
			AC3.1	Apply geometric formulas to determine areas of various structures
			AC3.2	Apply appropriate formulas to determine percentages/decimals
			AC3.3	Apply appropriate formulas to determine ratios, fractions, and proportion measures
			AC3.4	Apply appropriate formulas to determine measurement of dimensions, spaces, and structures
			AC3.5	Develop a model that show the conceptual understanding of a three-dimensional from a two-dimensional drawing
			AC3.6	Define the X, Y, Z coordinates involved in common computer numeric control (CNC) applications
			AC4.0	Identify various materials and evaluate the proper application in project planning
			AC4.1	Differentiate various cabinetry materials and their appropriate applications
			AC4.2	Identify the common grades of lumber and sheet goods
			AC4.3	Describe and identify natural defects in woods
			AC4.4	Utilize proper storage and handling techniques
			AC5.0	Demonstrate advanced skills and techniques used in the industry
			AC5.1	Determine plumb, level, and square
			AC5.2	Demonstrate proper techniques used in various sawing, shaping, carving, molding and routing applications
			AC5.3	Apply fabricating techniques of various cabinet parts
			AC5.4	Differentiate between different styles in cabinets, doors, and drawers
			AC5.5	Identify and create the basic wood and mechanical joints used in cabinetry
			AC6.0	Demonstrate the use of cabinet fasteners and hardware
			AC6.1	Determine proper application and use of mechanical fasteners and adhesives
			AC6.2	Analyze different hinge systems and their applications
			AC6.3	Analyze various drawer glides and their appropriate applications
			AC7.0	Demonstrate proper assembly and finish preparation techniques
			AC7.1	Develop logical assembly process/procedure
			AC7.2	Demonstrate various ways to remove excess adhesive
			AC7.3	Apply surface preparation skills before finishing
			AC8.0	Demonstrate the use of finishing materials and processes
			AC8.1	Explain the purpose and applications of various types of finishes and finishing processes
			AC8.2	Develop and follow a finishing schedule
			AC8.3	Utilize safe and approved methods for cleanup and disposal (OSHA, EPA, DENR)

Course Name	Building Trades											
Course Number	17002											
Code	Current Standard			Code	Revised Standard							
IBT1.0	Understand and apply industry safety procedures			BT1.0	Understand and apply industry safety procedures							
IBT1.1	Identify and demonstrate the proper industry safety standards			BT1.1	Identify and demonstrate the proper industry safety standards							
IBT2.0	Utilize appropriate industry math skills and formulas			BT2.0	Utilize appropriate industry math skills and formulas							
IBT2.1	Understand and demonstrate basic math skills			BT2.1	Understand and demonstrate basic math skills and formulas							
IBT3.0	Identify and correctly use appropriate hand, power and pneumatic tools			BT3.0	Identify and correctly use appropriate hand, power, and pneumatic tools							
IBT3.1	Demonstrate safe and proper use of hand tools			BT3.1	Demonstrate safe and proper use of hand tools							
IBT3.2	Demonstrate safe and proper use of power tools			BT3.2	Demonstrate safe and proper use of power tools							
IBT3.3	Demonstrate safe and proper use of pneumatic tools			BT3.3	Demonstrate safe and proper use of pneumatic tools							
IBT4.0	Understand blueprint reading and perform basic survey techniques			BT4.0	Understand blueprint reading and perform basic survey techniques							
IBT4.1	Demonstrate how to read blue prints			BT4.1	Demonstrate how to read blueprints							
IBT4.2	Demonstrate basic survey techniques			BT4.2	Demonstrate basic survey techniques							
IBT5.0	Apply basic organizational, spatial, structural construction principles of carpentry			BT5.0	Apply basic organizational, spatial, structural and construction principles of carpentry							
IBT5.1	Illustrate constructing a structural project			BT5.1	Demonstrate the understanding of the building process by the building of a construction project							
IBT6.0	Study principles, standards and applications of plumbing			BT6.0	Study principles, standards and applications of plumbing							
IBT6.1	Define safety procedures for plumbing			BT6.1	Define safety procedures for plumbing							
IBT6.2	Distinguish pipe sizes, fittings, adapters, and coupling			BT6.2	Distinguish pipe sizes, fittings, adapters, and coupling							
IBT6.3	Demonstrate the use of plumbing materials			BT6.3	Demonstrate the use of plumbing materials							
IBT7.0	Employ basic knowledge and methods of electrical wiring			BT7.0	Employ basic knowledge and methods of electrical wiring							
IBT7.1	Select safety uses of electrical materials			BT7.1	Select electrical materials considering safety							
IBT7.2	Identify electrical materials			BT7.2	Identify electrical materials							
IBT7.3	Illustrate uses of electrical materials			BT7.3	Illustrate uses of electrical materials							
IBT8.0	Integrate concrete technology to achieve thorough construction background			BT8.0	Employ basic knowledge and methods of concrete technology							
IBT8.1	Identify safe use of concrete materials			BT8.1	Identify safe practice associated with concrete materials							
IBT8.2	Calculate the component parts of concrete and cement			BT8.2	Calculate the various required ingredients used in concrete							
IBT8.3	Employ application of concrete in different situations			BT8.3	Employ application of concrete in different situations							
IBT9.0	Understand drafting design concepts											
IBT9.1	Choose computer programs to acquire skills in drafting											
IBT9.2	Create a floor plan design											
IBT9.3	Complete a floor plan design using accepted symbols and techniques											
IBT10.0	Student will participate in career exploration activities			BT9.0	Student will participate in career exploration activities							
IBT10.1	Research career opportunities in the architecture and construction fields			BT9.1	Research career opportunities in the architecture and construction fields							

Course Name	Residential Construction			
Course Number	17003			
Code	Current Standard		Code	Revised Standard
RC1.0	Understand and apply industry safety procedures		RC1.0	Understand and apply industry safety procedures
RC1.1	Demonstrate the proper industry safety standards		RC1.1	Demonstrate proper industry safety standards
RC2.0	Utilize appropriate industry math skills and formulas		RC2.0	Utilize appropriate industry math skills and formulas
RC2.1	Understand and demonstrate basic math skills		RC2.1	Understand and demonstrate basic math skills
RC3.0	Understand concepts of blueprint reading and perform basic survey technique:		RC3.0	Understand concepts of blueprint reading and perform basic survey technique:
RC3.1	Demonstrate how to read blue prints		RC3.1	Demonstrate how to read blueprints
RC3.2	Demonstrate basic survey techniques and site layout		RC3.2	Demonstrate survey techniques and site layout
RC4.0	Identify and understand wood building materials, fasteners, and adhesives		RC4.0	Identify and understand wood building materials, fasteners, and adhesives
RC4.1	Understand and demonstrate the use of wood building materials		RC4.1	Understand and demonstrate the use of wood building materials
RC4.2	Understand and demonstrate the use of fasteners and adhesives		RC4.2	Understand and demonstrate the use of fasteners and adhesives
RC5.0	Identify and correctly use appropriate hand, power, and pneumatic tool:		RC5.0	Identify and correctly use appropriate hand, power, and pneumatic tool:
RC5.1	Demonstrate safe and proper use of hand tools		RC5.1	Demonstrate safe and proper use of hand tools
RC5.2	Demonstrate safe and proper use of power tools		RC5.2	Demonstrate safe and proper use of power tools
RC5.3	Demonstrate safe and proper use of pneumatic tools		RC5.3	Demonstrate safe and proper use of pneumatic tools
RC6.0	Integrate concrete technology to achieve thorough construction background		RC6.0	Integrate concrete technology to achieve thorough construction background
RC6.1	Understand and demonstrate the uses of concrete and reinforcing materials:		RC6.1	Understand and demonstrate the uses of concrete and reinforcing materials:
RC7.0	Understand and perform framing or flooring systems, wall and ceilings and roofing system:		RC7.0	Understand and perform framing or flooring, wall, ceiling and roofing system:
RC7.1	Understand and demonstrate framing of flooring systems		RC7.1	Understand and demonstrate framing and flooring systems
RC7.2	Understand and demonstrate framing of wall and ceiling systems		RC7.2	Understand and demonstrate framing of wall and ceiling system
RC7.3	Understand and demonstrate framing of a roofing system		RC7.3	Understand and demonstrate framing of a roofing system
RC8.0	Understand and demonstrate installation of windows and exterior doors		RC8.0	Understand and demonstrate installation of windows and exterior door:
RC8.1	Understand and demonstrate installation of windows		RC8.1	Understand and demonstrate installation of windows
RC8.2	Understand and demonstrate installation of exterior doors		RC8.2	Understand and demonstrate installation of exterior doors
RC9.0	Identify and perform different exterior finishing methods		RC9.0	Identify and perform different exterior finishing methods
RC9.1	Understand and demonstrate installation of exterior finish		RC9.1	Understand and demonstrate installation of exterior finish
RC10.0	Identify and understand different roofing applications		RC10.0	Identify and understand roofing applications
RC10.1	Understand and demonstrate installation of roofing materials		RC10.1	Understand and demonstrate installation of roofing materials:
RC11.0	Understand the importance and properly install thermal and moisture protector		RC11.0	Understand the importance of and properly install thermal and moisture protector
RC11.1	Understand and demonstrate installation of thermal and moisture protector		RC11.1	Understand and demonstrate installation of thermal and moisture protector
RC12.0	Properly perform drywall installation and finishing techniques:		RC12.0	Perform drywall installation and finishing techniques:
RC12.1	Understand and demonstrate drywall installation		RC12.1	Understand and demonstrate drywall installation
RC12.2	Understand and demonstrate drywall finishing		RC12.2	Understand and demonstrate drywall finishing
RC13.0	Understand methods and complete interior finish work		RC13.0	Understand methods and complete interior finish work
RC13.1	Understand and demonstrate interior finishing		RC13.1	Understand and demonstrate interior finishing
RC14.0	Understand cabinet manufacturing process and install cabinets, countertops and back splashes:		RC14.0	Understand the cabinet manufacturing process and install cabinets
RC14.1	Understand cabinet design and installation		RC14.1	Understand basic cabinet design and installation
RC15.0	Using appropriate math formula, calculate the number and sizes of risers and treads for a stairway and layout and cut stringers and identify the various types and parts of stairs		RC15.2	Using appropriate math formula calculate the number and sizes of risers and treads for a stairway
			RC15.1	Identify the various types and parts of stairs
RC15.1	Understand and demonstrate installation of stairs		RC15.0	Understand and demonstrate installation of stairs
			RC15.3	Layout and cut stringers
RC16.0	Study the principles and standards of basic residential electric and plumbing application:		RC16.0	Study the principles and standards of basic residential electric and plumbing application:
RC16.1	Understand and demonstrate basic residential electric and plumbing application:		RC16.1	Understand and demonstrate basic residential electric and plumbing application:
RC17.0	Students will participate in career exploration activities		RC17.0	Student will participate in career exploration activities:
RC17.1	Research career opportunities in the Architecture & Construction field:		RC17.1	Research career opportunities in the architecture and construction field: