Architectural Technology Curriculum Sequence

With ARCH 281/282/283	ARCH 170 - Tech I	ARCH 172- Tech II	ARCH 173 - Tech III
2nd year 2+4 Option 3rd year PT Evening Option	**ARCH 221 Materials & Methods I 1.5 cr.** wk 1-5 Introduction to Sustainable Building Building Systems Selection Foundations Systems Wood Framing Systems & Heavy Timber Brick Masonry and Masonry Wall Construction *ARCH 161 A*	**ARCH 222 Materials & Methods II 1.5 cr.** wk 1-5 Introduction to Building Resource Use Site Analysis, Building Metrics, Plan Efficiency and Water Use Steel frame construction bay analysis Wall section for a masonry veneer building *ARCH 161 B*	**ARCH 223 Materials & Methods III 1.5 cr.** wk 1-5 Introduction to Concrete Construction Site Cast and Precast Framing Systems Low/Steep Slope Roofing Sustainability in Envelope Design Wall Section/Axonometric Detail of an Inside/Outside Corner of Envelope
	ARCH 251 Structural Systems I 1.5 cr. wk 6-11 *Introduction to Structures* Measurements and Structural Metrics Structural Intuition Mechanics of Materials Structural Loading *ARCH 271 A*	**ARCH 252 Structural Systems II 1.5 cr.** wk 6-10 *Statics* Forces and Systems of Forces Moment and Reactions Types of Support Shear and Moment Diagrams Bending Stress and Deflection *ARCH 271 B*	**ARCH 253 Structural Systems III 1.5 cr.** wk 6-10 *Wood Structures* Design Methodologies Designing in Wood (Systems, Beams & Columns) Introduction to Trusses Truss Analysis Wood Design Project *ARCH 272 A*
With ARCH 381/382/383	**ARCH 274 - Tech IV**	**ARCH 275 - Tech V**	**ARCH 276 - Tech VI**
3rd year 2+4 Option 4th year PT Evening Option	**ARCH 354 Structural Systems IV 1.5 cr.** wk 1-5 *Steel Structures* Designing in Steel Design of Steel Tension Elements Design of Steel Beams & Columns Steel Design Project & Steel Lab *ARCH 272 B*	**ARCH 355 Structural Systems V 1.5 cr.** wk 1-5 *Concrete Structures* Designing in Concrete Types of Concrete Design of Concrete Beams & Columns Pre-stressing *ARCH 273 A*	**ARCH 356 Structural Systems VI 1.5 cr.** wk 1-5 *Masonry Structures* Designing in Masonry Foundation Design Structural Materials Investigation Report *ARCH 273 B*
	ARCH 291 Building Systems I 1.5 cr. wk 6-11 *Mechanical Systems* Thermal Comfort Solar Geometry and Shading Heat Flow and Balance Point Temperature Passive Heating *ARCH 261 A*	**ARCH 292 Building Systems II 1.5 cr.** wk 6-10 *Water, Climate and Energy Systems* Water and Basic Design Wate Supply and Demand Building Water Distribution *ARCH 262 A*	**ARCH 293 Building Systems II 1.5 cr.** wk 6-10 *Lighting and Electrical Systems* Fundamentals of Electricity Fundamentals of Lighting Lighting Fixture Design Electric Lighting Analysis Daylighting Analysis *ARCH 263 A*
With ARCH 481/482/483	**ARCH 377 - Tech VII**	**ARCH 378 - Tech VIII**	**ARCH 379 - Tech IX**
4th year 2+4 Option 5th year PT Evening Option	**ARCH 394 Building Systems IV 1.5 cr.** wk 1-5 *Mechanical Systems* Cooling Loads and Systems HVAC Distribution Natural Ventilation Sustainable Thermal Systems *ARCH 261 B*	**ARCH 395 Building Systems V 1.5 cr.** wk 1-5 *Water, Climate and Energy Systems* Acoustics Fundamentals Acoustical Analysis of Enclosed Spaces Acoustical Room Design Solar and Renewable Systems Operating Costs EUI and NetZero Analysis *ARCH 262 B*	**ARCH 396 Building Systems VI 1.5 cr.** wk 1-5 *Lighting and Electrical Systems* Building Electrical Distribution Lighting Simulation Building Energy Simulation Building Envelope Simulation *ARCH 263 B*
	ARCH 324 Materials & Methods IV 1.5 cr. wk 6-11 *Wood and Masonry* Exterior Finishes for Wood Interior Finishes for Wood Stone and Concrete Masonry	**ARCH 325 Materials & Methods V 1.5 cr.** wk 6-10 *Steel and Encolsure Systems* Light Gauge Steel Framing Windows and Doors Cladding with Metal and Glass	**ARCH 326 Materials & Methods VI 1.5 cr.** wk 6-10 *Interior Construction and Finishes* Selecting Interior Finishes Interior Walls and Partitions Finished Ceilings and Floors

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