# ARCHITECTURE (ARC)

**ARC 123 Architectural Graphics I (3 CR.)**
Introduces techniques of architectural communication including orthographic projection and sketching as well as 3D views and modeling. Requires the manual production of plans, sections, elevations and 3D views and models of a simple building. Includes dimensioning and detailing. Part I of II. (Credit cannot be awarded for both ARC 121 and 123.) Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**ARC 124 Architectural Graphics II (3 CR.)**
A continuation of Architectural Graphics I. Introduces techniques of architectural communication including orthographic projection and sketching as well as 3D views and modeling. Requires the production of plans, sections, elevations and 3D views and models of a simple building using computer technology. Includes dimensioning and detailing. Part II of II. (Credit cannot be awarded for both ARC 122 and 124.) Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.
**Prerequisite(s)** ARC 123

**ARC 133 Construction Methodology & Procedures I (3 CR.)**
Studies materials used in construction of buildings, covering foundations to structural framing systems. Includes appropriate use of materials for various construction types. Lecture 3 hours per week.
Credit for Prior Learning available for this course. More information at https://www.nvcc.edu/admissions/cpl.html.

**ARC 134 Construction Methodology & Procedures II (3 CR.)**
Studies materials and systems for building construction. Includes specification of materials and installation procedures; types of specifications and writing procedures; bidding procedures; and contract documents. Lecture 3 hours per week.
**Prerequisite(s)** ARC 133

**ARC 138 Structures For Architects (3 CR.)**
Analyzes the various forces acting on a building and surveys the structural elements used to resist them. Uses case studies of ordinary and unusual structures to illustrate concepts of structural design. Provides a conceptual overview of structural systems for students interested in the design and construction of buildings. Requires some elementary algebra. Includes exercises in reading structural drawings and tables. Lecture 3 hours per week.
**Prerequisite(s)** ARC 133 and MTH 111 or higher MTH

**ARC 197 Cooperative Education (1-5 CR.)**
Supervised on-the-job training for pay in approved business and government organizations. Applicable to all curricula at the discretion of the College. See eligibility requirements on page 39. Credit/work ratio not to exceed 1:5 hrs. May be repeated for credit. Variable hrs.

**ARC 200 History of Architecture (4 CR.)**
Surveys architecture from ancient times to the 19th century with emphasis on philosophy of design, form, and structure. Lecture 4 hours per week.

**ARC 201 History of Modern Architecture (3 CR.)**
Surveys architecture from 19th century to present, with emphasis on philosophy of design, form, and structure. Lecture 3 hours per week.

**ARC 220 Intro. to Landscape Architecture and Site Planning (3 CR.)**
Introduces the basics of landscape design and development concepts through architectural construction and plantings. Shows relationship between design and environment, including objectives of design elements and materials, facilities. Lecture 3 hours per week.

**ARC 225 Site Planning And Technology (3 CR.)**
Studies the impact of building codes and zoning ordinances on site design; storm drainage, grading design, erosion and flood control; site materials for paving and retaining walls; and site utilities. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**ARC 231 Advanced Architectural Design and Graphics I (4 CR.)**
Familiarizes students with a range of criteria and intentions in architectural design including the role of building systems. Helps students develop their design presentation graphics, design development and modeling skills used in a professional architectural office. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.
**Prerequisite(s)** ARC 124 or permission of instructor

**ARC 232 Advanced Architectural Design and Graphics II (4 CR.)**
Serves as a capstone course which requires the development of a comprehensive set of architectural communications for a complex building. Requires students to demonstrate competence in all aspects of architectural technology including site planning, building systems, construction documents, design principles and computer aided graphics. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.
**Prerequisite(s)** ARC 231

**ARC 240 Designing Sustainable Built Environments (3 CR.)**
Introduces students to ethics, ideas, technologies, methods and current practices in designing sustainable environments. Lecture 3 hours per week.

**ARC 243 Environmental Systems (4 CR.)**
Studies energy sources and strategies for use in buildings; heat loss and heat gain; heating and cooling equipment and system; water supply, distribution and waste systems and equipment; and principles of electricity, electrical systems, and equipment. Lecture 4 hours per week.

**ARC 298 Seminar And Project (1-5 CR.)**
Completion of a project or research report related to the student's occupational objective and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hrs.