

**J. Sargeant Reynolds Community College  
Course Content Summary**

**Course Prefix and Number:** ARC 299

**Credits:** 3

**Course Title:** Supervised Study in Architecture: Architectural Drafting IV

**Course Description:** Requires preparation of complete set of working drawings according to principles and techniques of architectural drawing procedures used in professional firms. CAD is the primary means for drawing production, as well as design presentation, including 3D renderings and animations. Prerequisites: ARC 212 or equivalent and DRF 232. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**General Course Purpose:** Course serves as a “capstone” class to evaluate the overall level of knowledge and skill developed by students in the Architectural and Industrial Design track prior to their graduation from the AAS program of Architectural and Civil Engineering Technology.

**Course Prerequisites and Co-requisites:**

**Prerequisites:** ARC 212 or equivalent and DRF 232

**Course Objectives:**

Upon completing the course, the student will be able to

- a. Conduct a complete analysis of his/her building solution regarding cost of ownership to the client;
- b. Generate a set of outline specifications regarding one particular aspect of the building design;
- c. Develop a “critical path analysis” schedule that will project the most efficient timeline of construction for the proposed project; and
- d. Create a presentation in 3D that will communicate vividly the look and “feel” of the proposed building design.

**Major Topics to Be Included:**

- a. Development of 2 dimensional drawings into 3 dimensions for modeling/rendering
- b. Preparation of a set of written outline specifications
- c. Preparation of detailed cost estimate
  - a. Preparation of a projected energy performance of the proposed building
- d. Execution of a rendered 3D animation “walk-through” of the building design

**Effective Date of Course Content Summary:** August, 2008