San Bernardino Valley College
Curriculum Approved: February 24, 2003
Last Updated: February 2003

I. COURSE DESCRIPTION:

A. Department Information:

Division:	Technical
Department:	Welding
Course ID:	INSPEC 016B
Course Title:	Advanced Construction Inspection: Uniform Mechanical Code
Units:	3
Lecture:	3 Hours
Laboratory:	None
Prerequisite:	INSPEC 012

B. Catalog and Schedule Description:
The interpretation and use of the Uniform Mechanical Code.

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: One

III. EXPECTED OUTCOMES FOR STUDENTS:

Upon completion of the course, students will be able to:

A. Administer and enforce the Uniform Mechanical Code.
B. Regulate heating system installations.
C. Regulate venting system locations and sizes.
D. Calculate combustion air requirements.
E. Regulate ducts and commercial hoods.
F. Calculate fees for permits and inspections for mechanical equipment.
G. Review manufacturers specifications for equipment.

IV. COURSE CONTENT:

A. Administration
   1. Local jurisdiction
   2. Manufacturers
   3. Definitions
   4. Dictionaries
   5. General requirements
B. Warm air heating systems
C. Gravity furnaces
D. Forced air furnaces
   1. Roof installations
   2. Garage installations
   3. Attic installations
   4. Confined spaces
E. Decorative appliances
F. Ventilation air supply
G. Exhaust systems
   1. Product conveying

2. Environmental air
3. Commercial kitchens

H. Duct systems
I. Combustion air
J. Chimneys
1. Masonry
2. Zero clearance
K. Special fuel burning equipment
L. Piping
1. Fuel gas
2. Hydronic
M. Solar systems
1. Storage systems
2. Panels

V. METHODS OF INSTRUCTION:

A. Directed discovery discussions, lectures, and video viewing
B. Instructor/student conferences addressing specific construction problems

VI. TYPICAL ASSIGNMENTS:

A. Read Chapter on Heating Systems of the code and complete the exercise in the workbook.
Typical Question:
Determine the minimum size of the attic access opening when the attic furnace is installed.
B. Review the attached plan and size the gas piping for the residence.
C. View the manufacturers video installation guide for a commercial grease hood and determine the clearances from combustibles.

VII. EVALUATION(S):

A. Methods of Evaluation:
1. Graded assignments - Each chapter exercise must be completed with a satisfactory grade before proceeding to the next exercise.
2. Tests
3. Feedback from instructor/student conferences
4. Mid-term examination
5. Final examination
Typical Questions:
a) Calculate the gas fixture units for the attached plan.
b) Write a correction notice for a house plan that proposes to install un-vented room heaters.

B. Frequency of Evaluation:
1. Weekly graded assignments
2. Test at the end of each topic
3. One mid-term examination
4. One final examination
5. Periodic feedback from instructor/student conferences

VIII. TYPICAL TEXT(S):

Uniform Mechanical Code, International Conference of Building Officials, Whittier, CA, 2000
Student Wordbook for the Uniform Mechanical Code, International Conference of Building Officials, Whittier, CA, 2000

IX. OTHER SUPPLIES REQUIRED OF STUDENTS:

Three-ring binder