College of San Mateo
Official Course Outline

1. **COURSE ID:** BLDG 775 **TITLE:** Introduction to Residential Dwelling Inspection Technology
   Units: 3.0 units **Hours/Semester:** 48.0-54.0 Lecture hours; and 96.0-108.0 Homework hours
   Method of Grading: Letter Grade Only

2. **COURSE DESIGNATION:**
   Degree Credit
   Transfer credit: none

3. **COURSE DESCRIPTIONS:**
   Catalog Description:
   Provides an overview of the building, mechanical, plumbing and electrical sections under the provisions of the International Residential Code and the California Residential Code. Suitable for jurisdictional, home inspectors, real estate professionals, facility managers, contractors, architects, engineers and those interested in exploring the inspection industry.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**
   Upon successful completion of this course, a student will meet the following outcomes:
   1. Identify techniques used in the inspection of single family residential dwellings from one and two family residential units.
   2. Recognize and evaluate the conditions, systems and components that effect the value of a dwelling.
   3. Review the modifications, remodeling, additions, alterations, and replacement of systems and components that would require permits, approval, permits, inspections and final sign-off by the Authority having jurisdiction.
   4. Interpret the findings of the inspection using the applicable codes for use in verbal and written communication.
   5. Prepare a report that includes the findings and make recommendations regarding further evaluation and corrective work by specialists, if necessary.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**
   Upon successful completion of this course, a student will be able to:
   1. Identify techniques used in the inspection of single family residential dwellings from one and two family residential units.
   2. Recognize and evaluate the conditions, systems and components that effect the value of a dwelling.
   3. Review the modifications, remodeling, additions, alterations, and replacement of systems and components that would require permits, approval, permits, inspections and final sign-off by the Authority having jurisdiction.
   4. Interpret the findings of the inspection using the applicable codes for use in verbal and written communication.
   5. Prepare a report that includes the findings and make recommendations regarding further evaluation and corrective work by specialists, if necessary.

6. **COURSE CONTENT:**
   Lecture Content:
   1. Introduction (Outcomes 1 & 5)
      A. Basic inspection procedures
      B. Report writing
      C. Interaction with clients
      D. Interaction with real estate agents
   2. Site Drainage Systems (Outcomes 2, 3 & 4)
   3. Electrical Systems (Outcomes 2, 3 & 4)
      A. Service Equipment
      B. Main and branch circuit feeder/sub-panels
      C. Overcurrent Protection
      D. Grounding Electrical Conductors
      E. Outlet Devices
      F. Switches

G. Lighting Fixtures
H. Appliances
I. Ground Fault Circuit Interrupter Protection

4. Mechanical Systems (Outcomes 2, 3 & 4)
   A. Fuel Burning Appliances
   B. Gravity and Forced Air Furnaces
   C. Combustion Air
   D. Venting
   E. Safety Control Devices
5. Plumbing Systems (Outcomes 2, 3 & 4)
   A. Drain, Waste and Vent Systems
   B. Water Supply Piping
   C. Connections
   D. Clean-Outs
   E. Clearances
   F. Kitchen, Laundry and Bathroom Fixtures
   G. Gas Piping
   H. Water Heaters
6. Structural Support Systems (Outcomes 2, 3 & 4)
   A. Attics
   B. Ceilings
   C. Walls
   D. Floors
   E. Cripple Wall Bracing
   F. Foundations
   G. Bolting
   H. Venting and Drainage
7. Dwelling Interiors (Outcomes 2, 3 & 4)
   A. Cracking
   B. Settlement
   C. Emergency Egress
   D. Handrails
   E. Light and Ventilation
   F. Fire Rated Wall Protection
   G. Bathtub/Shower Enclosures
   H. Building Modifications
8. Dwelling Exteriors (Outcomes 2, 3 & 4)
   A. Driveways
   B. Walks
   C. Patios
   D. Decks
   E. Balconies
   F. Porches
   G. Stairs
   H. Landings
   I. Roof Covering
   J. Flashing
   K. Flue Vents
   L. Chimneys
   M. Exterior Sidings
   N. Doors
   O. Windows

7. **REPRESENTATIVE METHODS OF INSTRUCTION:**
   Typical methods of instruction may include:
   A. Lecture
   B. Discussion
   C. Guest Speakers
   D. Other (Specify): Material demonstrations, written examinations, reading assignments, handouts, and homework.

8. **REPRESENTATIVE ASSIGNMENTS**
   Representative assignments in this course may include, but are not limited to the following:
   Writing Assignments:
   Written examinations and homework assignments.
   Reading Assignments:
   Assigned reading from course texts.

9. **REPRESENTATIVE METHODS OF EVALUATION**
   Representative methods of evaluation may include:
   A. Exams/Tests
   B. Homework
   C. Quizzes

10. **REPRESENTATIVE TEXT(S):**
    Possible textbooks include:
    A. International Code Council. *International Residential Code*, 2019 ed. Washington, DC: International Code Council, 2019
    Other:
    A. NFPA-70 National Electrical Code, 2018 (NEC)
    B. International Building Code (IBC) requirements for Group R (dwelling units)
    C. Single Family Dwelling code requirements under: Uniform Plumbing and Mechanical Code (UPC &UMC)

Origination Date: September 2020
Curriculum Committee Approval Date: October 2020
Effective Term: Fall 2021
Course Originator: Peter von Bleichert