 **HMI212 Installation Methods II – Course Plan**

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| Week | **Outcomes** | Format | Hrs | Topic/Content | Readings | Assignments | Assessment | Resources |
| 1, 2 | 1 | Lecture | 4 | ***Review of HMI 202***  ***Demonstrate the ability to correctly select and size overcurrent protection***  ***Demonstrate installation common to residential electrical wiring systems and equipment in compliance with the CEC.*** | Review codes sect. 6,8,10,26  and **HMI 202**  Unit 16 | Questions from text as assigned by instructor | Hand in and/or take up | CEC, Residential Electrical Wiring for all classes |
|  |  | Lab  (cont. in week 3) | 4 | Apply: Demonstrate the correct installation procedures and wiring connections for common residential switching devices and outlets with strict adherence to the CEC and NBC. | Code Sec. 14 | Lab assignment | Evaluation of practical lab assignment |  |
|  |  |  |  | Demonstrate proper installation procedures required for the following wiring methods while insuring strict adherence to CEC regulations: non-metallic sheathed cable, armoured cable, mineral-insulated cable, metallic sheathed cable, rigid / flexible conduit, rigid metallic tubing, and electrical non-metallic tubing. (Section 12)  Demonstrate the proper use of common hand tools in the electrical trade. | Ref. unit 17 |  | Evaluation of practical lab assignment |  |
| 3 | 1 | Lecture | 2 | ***General regulations regarding Class 2 signal and remote control circuits (Sect. 16 of CEC).*** | Unit 22  ***Sect. 16*** | Questions as assigned by instructor | Hand in and/or take up |  |
|  |  | Lab | 2 | Continue labs as indicated in weeks 1,2 |  | Lab assignment |  |  |

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| 4 | 1 | Lecture | 4 | ***Review / Test #1*** |  |  | Test # 1 |  |
| 5,6,  ½ of 7 | 1 | Lecture | 5 | ***Identify installation requirements for electric heating installed in single dwelling occupancies as specified in the installation of electrical equipment, section 62 of the CEC***  ***Apply***  ***Prepare a layout drawing for mast and installation.*** | Unit 22  Code sec. 62 | Questions as assigned by instructor | Hand in and/or take up |  |
|  |  | Lab | 5 | ***Demonstrate the ability to install a complete 100 amp residential service including the following circuits:***  ***hot water heaters, range outlets, dryer outlet, split duplex receptacle, bathroom outlet, outside weather-proof receptacle and general branch circuits, etc. (Sections 6, 12, 26)*** | Section 14, 16 | Lab assignment | Evaluation of practical lab assignment |  |
| ½ of 7  8, 9 | 1 | Lecture | 5 | ***Identify requirements for the installation of pools, tubs and spas (Section 68).***  ***Describe enclosures and fittings to electrical installations.*** | Units 13, 23  Unit 20 | Questions as assigned by instructor | Hand in and/or take up |  |
|  |  | Lab | 5 | Apply  Demonstrate requirements for the installation of pools, tubs and spas (Section 68) including the proper installation of enclosure and fittings common to the electrical trade. |  | Lab assignment | Evaluation of practical lab assignment |  |
| 10 | 1 | Lecture | 4 | ***Review / Test #2*** |  |  | Test #2 |  |

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| 11 | 1 | Lecture | 2 | ***Interpret the CEC regulations regarding the installation of fire alarms, smoke, heat and carbon monoxide detectors located in dwelling units. (sec. 32)***  ***Describe***  ***The CEC regulations for fire alarms.*** | Unit 21  Unit 24 | Questions as assigned by instructor | Hand in and/or take up |  |
|  |  | Lab | 2 | Demonstrate the CEC regulations regarding the installation of fire alarms, smoke, heat and carbon monoxide detectors located in dwelling units. |  | Lab assignment | Evaluation of practical lab assignment |  |
| 12, 13 | 1 | Lecture | 4 | ***Identify installation requirements for lighting installed in single dwelling occupancies as specified in the installation of electrical equipment (section 30 of the CEC)***  ***Identify switch control of lighting circuits, receptacle bonding and induction heating resulting from unusual switch connections.*** | Unit 10  Unit 8 | Questions as assigned by instructor | Hand in and/or take up |  |
|  |  | Lab | 4 | Demonstrate the correct installation procedures and wiring connections for common residential switching devices and outlets ensuring strict adherence to the CEC and to National Building Code (NBC) regulations.  Demonstrate switch control of lighting circuits |  | Lab assignment | Evaluation of practical lab assignment |  |
| 14 | 1 | Lecture | 2 | ***Identify requirements for television, phone, data and home automation systems (Sections 54 & 60).***  ***Identify temporary wiring installations requirements for building or project under construction or demolition (section 76) of the CEC.*** | Unit 24  Sect. 54, 60 | Questions as assigned by instructor | Hand in and/or take up |  |
|  |  | Lab | 2 | Apply  Install / prepare for television outlets, antennas, cable, etc.  Install / prepare for CATV installation requirements.  Prepare conduit for telephone conductors, boxes and outlets. |  | Lab assignment | Evaluation of practical lab assignment |  |
| 15 | 1 | Lecture | 4 | ***Review / Test # 3*** |  |  | Test #3 |  |
| 16 | 1 |  |  | Take up test #3 |  |  |  |  |