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| **ELC-112\_2013FA** | **DC/AC Electricity** | **ELC-112** |

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| CIS Course ID | S23481 |
| Effective Term | Fall 2013 |
| End Term |  |

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| Class | 3 | Lab | 6 | Clinical | 0 | Work | 0 | Credit | 5 |

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| This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits. |

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| Competencies |
| ·Student Learning Outcomes 1. Demonstrate safe practices and procedures with tools, materials, and industry accepted test equipment covered in the course. 2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to electrical circuits. 3. Construct and analyze series, parallel and combinations circuits using appropriate components. 4. Use appropriate laws and formulas to perform circuit calculations. 5. Interpret electrical schematics. 6. Describe the characteristics of various power sources. |

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| State Prerequisites | None |

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| State Corequisites | None |

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| **ELC-117\_2013FA** | **Motors and Controls** | **ELC-117** |

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| CIS Course ID | S23521 |
| Effective Term | Fall 2013 |
| End Term |  |

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| Class | 2 | Lab | 6 | Clinical | 0 | Work | 0 | Credit | 4 |

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| This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits. |

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| Competencies |
| Student Learning Outcomes 1. Demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course. 2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to control circuits. 3. Interpret and use ladder and wiring diagrams, symbols, and schematics. 4. Demonstrate and describe the use of relays, contactors, motor starters and pilot devices in electrical control circuits. 5. Describe principles and operations related to electrical control circuits. 6. Describe the concepts of rotating electrical machinery. |

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| State Prerequisites | None |

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| State Corequisites | None |

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| **ELC-118\_1997SU** | **National Electrical Code** | **ELC-118** |

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| CIS Course ID | S11926 |
| Effective Term | Summer 1997 |
| End Term |  |

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| Class | 1 | Lab | 2 | Clinical | 0 | Work | 0 | Credit | 2 |

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| This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC. |

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| State Prerequisites | None |

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| State Corequisites | None |

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| **ELC-120\_2007FA** | **Intro to Wiring** | **ELC-120** |

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| CIS Course ID | S21590 |
| Effective Term | Fall 2007 |
| End Term |  |

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| Class | 2 | Lab | 2 | Clinical | 0 | Work | 0 | Credit | 3 |

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| This course is an introduction to wiring concepts for non-electricians. Topics include safety, tools, materials, techniques and terminology associated with electrical wiring. Upon completion, students should be able to use and/or identify wiring tools, materials and procedures at an introductory level. |

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| State Prerequisites | None |

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| State Corequisites | None |