

ELECTRICAL TRADES APPRENTICESHIP (ELTA)

ELTA 101, NATIONAL ELECTRICAL CODE I: COMMERCIAL AND INDUSTRIAL 1 (1)

This course provides an introduction to the National Electrical Code with an emphasis on commercial and industrial applications. Students must be enrolled in the IBEW/NECA Electrical Trades Apprenticeship program.

General Education: GE02, GE05

Course Entry Requirement(s): Prerequisite: Students must be enrolled in the IBEW/NECA Electrical Trades Apprenticeship program

Typically Offered: Not offered this year

ELTA 102, NATIONAL ELECTRICAL CODE II: COMMERCIAL AND INDUSTRIAL 3 (3)

This course is the second part of a three part series covering the National Electrical Code with an emphasis on commercial and industrial applications. Students must be enrolled in the IBEW/NECA Electrical Trades Apprenticeship program.

General Education: GE02, GE05, GE06, GE08

Course Entry Requirement(s): Prerequisite: ELTA 101

Typically Offered: Not offered this year

ELTA 103, NATIONAL ELECTRICAL CODE III: COMMERCIAL AND INDUSTRIAL 4 (4)

This course is the third part of a three part series covering the National Electrical Code with an emphasis on commercial and industrial applications. Students must be enrolled in the IBEW/NECA Electrical Trades Apprenticeship program.

General Education: GE02, GE05, GE08

Course Entry Requirement(s): Prerequisite: ELTA 102

Typically Offered: Not offered this year

ELTA 111, DC THEORY: COMMERCIAL AND INDUSTRIAL 3 (5)

This course provides a detailed study of DC electrical circuits and related bilateral components. The topics included are electric current; voltage; resistance; series, parallel and series-parallel circuits; as well as circuit theorems, magnetism, generators and motors. The course contains a laboratory section that emphasizes the practical aspects of circuit construction and electrical measurement devices. Students must be enrolled in the IBEW/NECA Electrical Trades Apprenticeship program. Laboratory required (A special fee will be assessed.)

General Education: GE01, GE02, GE05, GE07

Course Entry Requirement(s): Prerequisite: Student must be enrolled in the IBEW/NECA Electrical Trades Apprenticeship program.

Typically Offered: Not offered this year

ELTA 112, AC THEORY: COMMERCIAL AND INDUSTRIAL 5 (7)

This course provides a detailed study of AC electrical circuits and related bilateral components. The concepts of RL, RC, LC, and RLC reactive circuits; resonance, passive filters, three phase power systems, and power factor analysis are also covered. Students must be enrolled in the IBEW/NECA Electrical Trades Apprenticeship program. Laboratory required. (A special fee will be assessed.)

General Education: GE02, GE05, GE06, GE07

Course Entry Requirement(s): Prerequisite: ELTA 111

Typically Offered: Not offered this year

ELTA 133, SEMICONDUCTOR THEORY: COMMERCIAL AND INDUSTRIAL 4 (6)

This course is an introduction to the theory, operation, and practical applications of solid state devices. Topics include diodes, transistors, rectification circuits, power supplies, amplifier configurations, oscillators, SCR circuits, optoelectronics, and fiber optics. Students must be enrolled in the IBEW/NECA Electrical Trades Apprenticeship program. Laboratory required (A special fee will be assessed.)

General Education: GE01, GE02, GE03, GE05, GE06, GE07

Course Entry Requirement(s): Prerequisite: ELTA 112

Typically Offered: Not offered this year

ELTA 204, MOTORS AND MOTOR CONTROL: COMMERCIAL AND INDUSTRIAL 5 (5)

This course is an introduction to AC and DC motors and motor control devices. Topics include motor protection, single and three-phase motors, AC alternators, motor starters, contactors and relays, control diagrams and drawings, timing devices, AC and DC motor speed controls, and troubleshooting. Students must be enrolled in the IBEW/NECA Electrical Trades Apprenticeship program.

General Education: GE01, GE02, GE05, GE06, GE07, GE08

Course Entry Requirement(s): Prerequisite: ELTA 133

Typically Offered: Not offered this year

ELTA 214, DIGITAL ELECTRONICS: COMMERCIAL AND INDUSTRIAL 2 (4)

The course serves as an introduction to basic digital electronic concepts. Topics included are Boolean Algebra, Basic logic gates, buffer and inverter amplifiers, and debouncing circuits. Students must be enrolled in the IBEW/NECA Electrical Trades Apprenticeship program. Laboratory required. (A special fee will be assessed.)

General Education: GE02, GE06, GE07

Course Entry Requirement(s): Prerequisite: ELTA 204

Typically Offered: Not offered this year

ELTA 287, WORK-BASED LEARNING I - ELTA 1-3 (1)

This course provides supervised work experience building on experience in Work-Based Learning with approved employer(s) in an area related to the student's program. Emphasis is placed on integrating classroom learning with work experience. Students will be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Activities are coordinated and evaluated by college personnel.

General Education: GE01, GE02, GE06, GE08

Course Entry Requirement(s): Prerequisite: Minimum 2.0 GPA overall and division approval

Typically Offered: Not offered this year