

# ASSOCIATE IN SCIENCE ELECTRICAL POWER TECHNOLOGY (26054)

## About the Program

The Electrical Power Technology (EPT) Program Associate in Science degree is offered by the Miami Dade College (MDC) School of Engineering + Technology at the Homestead Campus, in partnership with Florida Power & Light (FPL) / Next Era. This skilled-worker pipeline program was created to address the nationwide energy workforce shortage. The energy industry offers tremendous growth opportunities with high pay. As a highly skilled graduate of this program, you will be qualified to work in a power generation plant. Through this program, you will gain hands-on experience at our state-of-the-art training center. The program also offers the opportunity to apply for a paid summer internship at FPL / Next Era.

## Pre-Requisites to Enter Program

- Contact Lindsey Mendelsohn to be placed on the **Wait List** to be considered for the program.
- Must be **College Ready** (Passed CPT/PERT exams, completed college prep for English, Reading and Math, or have acceptable SAT / ACT scores).
- Pass a mechanical aptitude test: **MASS Test**.
- Submit **Transcripts** from other colleges by April 15.
- Apply for Financial Aid by May 1 via: [www.fafsa.ed.gov](http://www.fafsa.ed.gov)
- **New Cohorts** start every August in the Fall term.
- **Full-time** program only, in cohort setting.
- Once selected, all classes taken at **MDC Homestead**.



Students in class at MDC.



MDC student during internship at FPL.

## Advantages of the Degree

- There is a high demand for skilled personnel in the energy industry.
- Entry level positions offer an excellent salary with good benefits.
- You will receive instruction from highly skilled and experienced faculty from MDC and FPL, as well as get hands-on experience.
- Your classes will be held in a cohort arrangement providing you with peer support.
- You will have an opportunity to apply for a paid summer internship with FPL / Next Era.
- Once you graduate, you have the opportunity to apply to FPL / Next Era. However, there is **no guarantee of employment**.

## Average Starting Salaries

| Position                        | Starting Salary |
|---------------------------------|-----------------|
| Mechanic                        | \$55,000        |
| Electrician                     | \$55,000        |
| Instrumentation & Control Tech. | \$55,000        |

Visit our Web site: <http://entec.mdc.edu>

For more information contact:

Lindsey Mendelsohn, (305) 237-5169, [lmendels@mdc.edu](mailto:lmendels@mdc.edu)  
Jeanie Canavan, (305) 237-5109, [gcanavan@mdc.edu](mailto:gcanavan@mdc.edu)

## Associate in Science Electrical Power Technology (26054)

Total credits required for the degree: 68

### I. GENERAL EDUCATION REQUIREMENTS

15 credits required

| Course                              | Course Title                          | Credits |
|-------------------------------------|---------------------------------------|---------|
| <b>1. COMMUNICATIONS</b>            |                                       |         |
| ENC 1101                            | English Composition 1                 | 3       |
| <b>2. ORAL COMMUNICATIONS</b>       |                                       |         |
| SPC 1017                            | Fundamentals of Speech Communications | 3       |
| <b>3. HUMANITIES</b>                |                                       |         |
| PHI 2604                            | Critical Thinking/Ethics              | 3       |
| <b>4. BEHAVIORAL/SOCIAL SCIENCE</b> |                                       |         |
| CLP 1006                            | Psychology of Personal Effectiveness  | 3       |
| <b>5. MATH/SCIENCE</b>              |                                       |         |
| MAC 1105                            | College Algebra                       | 3       |

### II. COMPUTER COMPETENCY

4 credits required

|                               |                                |   |
|-------------------------------|--------------------------------|---|
| <b>6. COMPUTER COMPETENCY</b> |                                |   |
| CGS 1060                      | Introduction to Microcomputers | 4 |

### III. MAJOR COURSE REQUIREMENTS

26 credits required

|                                      |                                      |   |
|--------------------------------------|--------------------------------------|---|
| <b>7. MAJOR COURSE CORE REQUIRED</b> |                                      |   |
| EET 1015C                            | Direct Current Circuits              | 4 |
| EET 1025C                            | Alternating Current Circuits         | 4 |
| EGN 1949                             | Co-op Work Experience                | 1 |
| ETI 1000                             | Industrial Plant Tools and Equipment | 1 |
| ETI 1701                             | Industrial Safety                    | 3 |
| ETP 1200                             | Power Plant Science                  | 3 |
| ETP 1220                             | Power Plant Fundamentals             | 2 |
| ETP 1230                             | Power Plant Systems                  | 2 |
| MTB 1322                             | Technical Mathematics 2              | 3 |
| PHY 1025                             | Basic Physics                        | 3 |

### IV. PROGRAM CORE REQUIREMENTS

23 credits required - choose one of three specialization options



Classes are held Monday through Friday and generally begin at 8:00 a.m. and end by 1:00 p.m.

### First Term – Fall Term

15 Credits

|          |                          |   |
|----------|--------------------------|---|
| ETP 1220 | Power Plant Fundamentals | 2 |
| ETI 1701 | Industrial Safety        | 3 |
| ENC 1101 | English Composition 1    | 3 |
| CGS 1060 | Intro to Microcomputers  | 4 |
| MAC 1105 | College Algebra          | 3 |

### Second Term – Spring Term

15 Credits

|           |                                      |   |
|-----------|--------------------------------------|---|
| EET 1015C | Direct Current Circuits              | 4 |
| EET 1025C | Alternating Current Circuits         | 4 |
| ETI 1000  | Industrial Plant Tools and Equipment | 1 |
| MTB 1322  | Technical Mathematics 2              | 3 |
| PHY 1025  | Basic Physics                        | 3 |

### Third Term – Summer Term

6 Credits

|          |                       |   |
|----------|-----------------------|---|
| ETP 1200 | Power Plant Science   | 3 |
| ETP 1230 | Power Plant Systems   | 2 |
| EGN 1949 | Co-op Work Experience | 1 |

### Fourth Term – Fall Term

16 Credits

|          |                          |   |
|----------|--------------------------|---|
| SPC 1017 | Speech Communications    | 3 |
| PHI 2604 | Critical Thinking/Ethics | 3 |

**Specialization Options - (Based On Availability)**

#### Instrumentation and Control

|           |                                  |   |
|-----------|----------------------------------|---|
| ETS 2542C | Programmable Logic Controllers 1 | 3 |
| EET 1141C | Electronics 1                    | 4 |
| ETS 2520C | Process Measurement Fundamentals | 3 |

#### Mechanical

|           |                                       |   |
|-----------|---------------------------------------|---|
| ETI 2425C | Metallurgical Properties and Dynamics | 3 |
| ETM 1315C | Applied Pneumatics and Hydraulics     | 3 |
| ETP 2231C | Power Plant Machines & Components 1   | 4 |

#### Electrical

|           |                                  |   |
|-----------|----------------------------------|---|
| ETS 2542C | Programmable Logic Controllers 1 | 3 |
| EET 1141C | Electronics 1                    | 4 |
| EET 2515C | Motors and Generators            | 3 |

### Fifth Term – Spring Term

16 Credits

|          |                                      |   |
|----------|--------------------------------------|---|
| CLP 1006 | Psychology of Personal Effectiveness | 3 |
|----------|--------------------------------------|---|

**Specialization Options - (Based on Availability)**

#### Instrumentation and Control

|           |                                   |   |
|-----------|-----------------------------------|---|
| ETS 2544C | Programmable Logic Controllers 2  | 3 |
| EET 2101C | Electronics 2                     | 4 |
| ETS 2530C | Process Control Technology        | 3 |
| ETI 2315C | Fluid / Pneumatic Instrumentation | 3 |

#### Mechanical

|           |                                     |   |
|-----------|-------------------------------------|---|
| ETI 2451C | Mechanical Maintenance Power Plants | 3 |
| ETI 2408C | Welding Processes                   | 3 |
| ETI 1805C | Introduction to Rigging and Lifting | 3 |
| ETP 2232C | Power Plant Machines & Components 2 | 4 |

#### Electrical

|           |  |   |
|-----------|--|---|
| ETS 2544C | Programmable Logic Controllers 2       | 3 |
| EET 2101C | Electronics 2                          | 4 |
| EET 2527C | Motor Starters, Controllers & Breakers | 3 |
| EET 2547C | Transformers and Power Distribution    | 3 |

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Miami Dade College is an equal access/equal opportunity affirmative action institution. This information is available in accessible formats. For this, or special accommodations, call 305-237-3848 three days before the event. TDD at 1-800-955-8771



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