

POWER ENGINEERING AND BOILER OPERATOR

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PROGRAM INFORMATION

Location: Oak Creek Campus

Pathway: Manufacturing, Construction & Transportation

Program Code: 30-428-1

Offering: In-class

Degree Type: Technical Diploma

Start Dates: August/January

ABOUT THE POWER ENGINEERING AND BOILER OPERATOR DIPLOMA

DESCRIPTION

Learn how to manage and repair equipment, to maintain facilities, and to operate and control low-pressure and high-pressure boilers and auxiliary systems in factories, plants and buildings.

Program graduates have potential for employment as building engineers, boiler operators, facilities maintenance mechanics and power engineers.

You can earn the Boiler Operator certificate on the way to completing this technical diploma.

Additional program details: Abilities that will contribute to your success in this field include a high mechanical aptitude, manual dexterity, and good communication skills.



BOILER OPERATOR

Use your mechanical aptitude and prepare for employment as a boiler operator, facilities maintenance mechanic or power engineer through this certificate's coursework. At the workplace, job responsibilities typically include regulating equipment; ensuring that equipment operates safely and economically; and monitoring meters, gauges and computerized controls.



AUTOMATED BUILDING SYSTEMS

Learn about emerging technologies and gain entry-level skills required for careers as technicians and specialists in building automations and controls. This industry encompasses a broad range of technologies used to efficiently control the electrical and mechanical systems in commercial, industrial and institutional buildings. Courses are taught in the Automated Building Systems (ABS) Lab.

DETAILED PROGRAM INFORMATION

2021-22 CURRICULUM

| Course | Course Name | Credits |
|----------------------|---|----------------|
| POWENG-330 | Low-Pressure Boilers ^ | 1 |
| POWENG-331 | High-Pressure Boilers ^ | 2 |
| POWENG-332 | Boiler Operation ^ | 1 |
| POWENG-334 | Blueprint Reading for Power Engineering | 1 |
| POWENG-335 | Instrumentation and Controls | 3 |
| POWENG-395 | Electricity for Power Engineering | 3 |
| ABS-143 | Electrical Concepts/Control Theory 1 | 2 |
| ENG-340 | Workplace Communication | 2 |
| POWENG-333 | Plant Maintenance and HVAC Basics | 3 |
| POWENG-336 | Math for Power Engineers | 1 |
| TOTAL CREDITS | | 19 |

‡ Prerequisite required.

^ Counts toward earning the Boiler Operator certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

To see course descriptions, class times and locations, visit the [full course catalog \(link\)](#).

Already a student? You can visit [Self-Service \(link\)](#) and choose Student Planning to register for classes.

2021-2022 PROGRAM CARD

View/print the program card: [front \(png\)](#) | [back \(png\)](#)

IMPORTANT DATES

Deadlines and important dates can be found on:

[Cost & Aid Deadlines](#)

Also, you can find dates and deadlines on the [MATC Calendar](#)

PROGRAM OUTCOMES

Program Learning Outcomes

- Follow industry safety standards
- Operate power engineering equipment
- Examine boiler operation effects on the environment
- Perform water treatment tests
- Operate building controls

CAREER OUTLOOK

A graduate of this program will have potential for employment as a building engineer, boiler operator, facilities maintenance mechanic or power engineer.

Stationary engineers, boiler operators and power engineers start up, regulate and shut down equipment. They ensure that it operates safely, economically and within established limits by monitoring meters, gauges and computerized controls. They manually control equipment and when necessary, make adjustments. They also record relevant events and facts concerning operation and maintenance in an equipment log.

On steam boilers they observe, control and record steam pressure, temperature, water level and chemistry, power output, fuel consumption and emissions. They watch and listen to machinery and routinely check safety devices, identifying and correcting any problems that develop.

POSSIBLE CAREERS

Building Engineer
Facilities Maintenance Mechanic
Power Plant Operator
Power Plant Mechanic
Heat Plant Operator

Learn about Scholarships available for this program here: <https://matc.academicworks.com>
Use Search function to search for your program(s)

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QUESTIONS?

[Manufacturing, Construction & Transportation Academic & Career Pathway](#)

[414-297-8901](tel:414-297-8901)

mctpathway@matc.edu

Last updated: 08/30/2021

CONTACT

700 W. State Street
Milwaukee, WI 53233

Virtual Services

matc.edu/gethelp

(414) 297-MATC(6282)

Toll Free: (800) 720-6282

Wisconsin Relay System 711

info@matc.edu

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