



Geothermal Plant Operator

Certificate of Achievement (34 credits)

Geothermal Plant Operators control and monitor geothermal power production, injection wells, pumps, vaporizers, condensers, turbines, generators, and auxiliary equipment used in power plants. They regulate the output from several generators, and monitor instruments to maintain voltage and regulate electricity flow from the plant. Computers are used to generate reports, maintain records, and track maintenance. Geothermal Plant Operators generally need a combination of higher education, on-the-job training, and experience. Geothermal Plant Operators also need strong mechanical, electrical, technical, and computer skills.

Graduates of this program will demonstrate the ability to:

- apply knowledge and skills to the operation of a geothermal power plant;
- identify, analyze, and solve typical technical problems associated with the operation of a geothermal power plant;
- communicate with and function effectively on a team; and
- apply knowledge of environmental regulations for the operation of geothermal power plants.

Additionally, graduates will have a respect for diversity and life-long learning; understand professional, ethical, and social responsibilities; and have a commitment to quality, timeliness, and continuous improvement.

Career Opportunities:

A Geothermal Power Plant Operator may advance with additional experience, training, and technical study to Senior Power Plant Operator, Shift Supervisor, and other plant management positions.

Recommended High School Subjects: Two years of algebra, one year of science, and one year of computer literacy.

Contact Information:

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Renewable Energy Technologies

<http://www.tmcc.edu/geothermal/>

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Suggested Course Sequence**

Semester	Prerequisites	Course	No	Title	
1	ENG 090, 098 or Accuplacer	ENG	101	Composition I	3
	MATH 096 or Accuplacer	MATH	126	Pre-Calculus I	3
	None	AIT	110	General Industrial Safety	1
	None	ENRG	110	Basics of Electricity	3
	None	CE	201	Workplace Readiness	3
TOTAL CREDITS:					13

Semester	Prerequisites	Course	No	Title	
2	ENRG 110	ELM	127	Introduction to AC Controls	3
	ENRG 110	ELM	129	Electric Motors and Drives	3
	ENRG 110	ELM	233	Introduction to Instrumentation	3
	ENG 101 MATH 120	ENRG	171	Well Design, Construction, and Geology	1
	ENG 101 MATH 120	ENRG	173	Geothermal Plants, Turbines, and Generators	3
TOTAL CREDITS:					13

Semester	Prerequisites	Course	No	Title	
3	ENG 101 MATH 120	ENRG	172	Fluids, Piping, Valves, and Pumps	4
	ENG 101 MATH 120	ENRG	174	Environmental Regulations for Geothermal Plant Operators	1
	ENG 101 MATH 120 ENRG 173	ENRG	271	Fundamentals of Process Controls	3
TOTAL CREDITS:					8

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