# **PLUMBING & HEATING**

## uccess begins here

COMMUNITY

#### PURPOSE OF PROGRAM

COLLEGE

Plumbing and heating is a two-year program providing instruction in all phases of repair, maintenance and installation of plumbing and heating equipment. The first year of the program is spent in the plumbing lab learning to work with several types of pipes including copper, steel and plastic. Plumbing fundamentals will be emphasized along with water pump systems and domestic water systems. In the second year, students study the fundamentals for warm air and hydronic heating systems including system design, sizing and troubleshooting. They will become involved in the handson practice of installation, maintenance and adjustment of equipment, as well as the wiring of electrical components of oil and propane burners, including troubleshooting, testing and adjusting. Students also gain experience in alternative heating systems including solar thermal, heat pumps and biomass. The program prepares students for several certifications and licenses in the fields of plumbing, heating, propane and refrigerant handling.

#### **CAREER OPPORTUNITIES**

Completion of the plumbing program gives graduates eligibility to take the Journeyman Plumbing examination, and completion of the heating program gives eligibility to take the Journeyman Oil Burner License examination.

Graduates qualify as mechanics in plumbing, heating and water pump service. They will also find employment opportunities with plumbing and heating contractors, as maintenance workers, plumbing and heating draft persons, plumbing and heating warehouse workers and salespersons. Additional experience may provide opportunities as managers, supervisors or operators of their own businesses.

An individual with a felony conviction may not be able to obtain licensure in certain professions.

NMCC is an equal opportunity/affirmative action institution and employer. For more information, please call 768-2791.

#### ADMISSIONS POLICY

Completion of a four-year high school program or a state high school equivalency certificate is required for admission into the plumbing and heating program. Associate degree applicants are required to have two years of high school math, including algebra I; algebra II, physics and geometry are also desired. For certificate level applicants, two years of math are required, with algebra I & II, geometry and physics desired. A rolling admissions policy affords candidates the opportunity to apply and be considered for acceptance throughout the year, but early application (9-10 months prior to the school year) is recommended because of competition and strict enrollment capacities established for each program.

#### APPLICATION PROCEDURE

The following procedures constitute the admissions process:

- 1. An application form must be submitted accompanied by a nonrefundable \$20 application fee.
- 2. An official high school transcript must also be submitted (current seniors' transcripts should include completed ranking periods).
- 3. GED test scores must be submitted by applicants who are not high school graduates.
- 4. Official college transcripts must be submitted by applicants who have attended other colleges or post-secondary schools.
- 5. Placement testing or appropriate SAT scores, individual interviews and campus tours are required, in most cases, prior to being admitted.
- 6. Admissions decisions are made as quickly as possible once a candidate's file is complete.
- 7. Accepted applicants are required to make a deposit within thirty days of acceptance. Students requesting on campus housing are required to submit an additional deposit to reserve space in the residential complex.

### PLUMBING & HEATING 2016-2017 Curriculum

#### Associate in Applied Science Degree Program

			- 9.	
First Semester		С	L	CR
ENG 111	0	3	0	3
♦ PLH 108		2	0	
♦ PLH 109	<b>J</b>	0	9	-
♦ PLH 113	<b>J J J J J J J J J J</b>	3	0	-
♦ PLH 115		1	0	1
	Humanities Elective	3	0	
		12	9	15
Second Se	mester			
DRR 117		s 2	2	3
MAT 119		4	0	4
♦ PLH 122		3	0	
♦ PLH 123	Plumbing Lab II	0	9	
♦ PLH 128		1	2	
SAE 117		1	0	1
	General Education Elective	1	0	1
		12	13	17
Third Seme	ostor			
ELE 117		2	3	3
PHY 150		2 3	2	
◆ PLH 211		3	9	
♦ PLH 212	Refrigeration & Air	1	3	2
· · • • • • • •	Conditioning	•		-
♦ PLH 216		2	2	3
		11	19	18
Fourth Sen	nester			
	Technical Communications	3	0	3
♦ PLH 213	Solid Fuel Equipment	1	3	
♦ PLH 219	Propane & Natural Gas II	2		3
♦ PLH 222		2	9	5
♦ PLH 225	Maine Oil/Solid Fuel Code I	1	0	-
	Social Science Elective	_3	0	3
		12	14	17
TOTAL REQUIRED				67

♦ Major courses; a minimum grade of "C" or 2.0 required.

#### PLUMBING Certificate Program

First Semester		С	L	CR
ENG 111	English Composition	3	0	3
♦ PLH 108	Plumbing Technology	2	0	2
♦ PLH 109	Plumbing Lab I	0	9	3
♦ PLH 113	Pipefitting Calculations	3	0	3
♦ PLH 115	Water Pump Basics	1	0	1
		9	9	12
Second Se DRR 117 MAT 119 PLH 122 PLH 123 PLH 128 SAE 117	Blueprint Read for Const Trades Applied Mathematics <b>Plumbing Code Review</b>	2 4 <b>3</b> 0 1 1	2 0 <b>9</b> 2 0 13	3 4 <b>3</b> 2 1 16
TOTAL REQUIRED				28

#### **HEATING - Certificate Program**

First Semester		С	L	CR
ELE 117	Heating & Cooling Controls	2	3	3
ENG 111	English Composition	3	0	3
♦ PLH 211	Heating I	3	9	6
♦ PLH 212	Refrigeration & Air	1	3	2
	Conditioning			
♦ PLH 216	Propane & Natural Gas I	2	2	3
		11	17	17
Second Se				
MAT 119	Applied Mathematics	4	0	4
♦ PLH 213	Solid Fuel Equipment	1	3	2
♦ PLH 219	Propane & Natural Gas II	2	2	3
♦ PLH 222	Heating II	2	9	5
♦ PLH 225	Maine Oil/Solid Fuel Code I	1	0	1
		10	14	15
TOTAL REQUIRED				32