

Sheet Metal Technology

FACULTY

Steve MacKay, 253.680.7254, smackay@bates.ctc.edu
<http://www.bates.ctc.edu/SheetMetal>

Bates offers the only program in the region that prepares students for apprenticeship employment in the sheet metal industry. Customer projects completed in the classroom, shop, and the field, provide students with the necessary foundation skills to succeed in this high demand and rewarding occupation. Instruction includes equipment operation, fabrication and installation of various ventilation systems, blueprint reading, computer-aided drafting, air distribution, and material handling. This is a pre-apprenticeship program for the Western Washington Sheet Metal Joint Apprenticeship Training Committee. Students earning a degree or certificate may be granted preferred status during the interview process to seek entry into the apprenticeship program.

Associate of Technology Degree: 97 credits

Sheet Metal Technology

Completion Range: 14-23 Months			<u>Credits/Hours</u>
SHMT 091	Occupational Human Relations		1/17
SHMT 092	Occupational Communications		2/33
SHMET 094	Applying Safety Principles		5/80
SHMET 095	Reading Blueprints		10/164
SHMET 097	Occupational Math Principles		5/80
SHMET 098	Basic Welding		11/180
SHMET 101	Layout Math		2.5/40
SHMET 105	Material Handling Technology		2.5/40
SHMET 106	Using Hand Tools Technology		3.5/60
SHMET 107	Using Metalworking Machines Technology		5/80
SHMET 109	Technology of Seams and Locks		3.5/60
SHMET 110A	Layout Drafting I		7/120
SHMET 110B	Layout Drafting II		3.5/60
SHMET 110C	Layout Drafting III		3.5/60
SHMET 111A	Fittings Fabrication I		7.5/125
SHMET 111B	Fittings Fabrication II		9/150
SHMET 211	Complex Component Fabrication		9/150
SHMET 212A	Codes & Duct Design		11.5/192
SHMET 212B	Air Balancing		6/100
SHMET 212C	Solar Heating Systems		2/33
SHMET 214	Designing & Developing Commercial Projects		11/180
SHMET 213A	Refrigeration Systems		10/165
SHMET 213B	Force Air Heating Systems		10/165
SHMET 213C	Gas Heating Systems		2/35

General Education Requirements

	<u>Credits</u>
100-level or> Human Relations – HREL, PSYCH, SOC or CMST	5
100-level or> Communications – ENGL or CMST	5
100-level or> Mathematics – MATH	5

Certificate of Training: 44 credits

Sheet Metal Production Support

Completion Range: 6 Months			<u>Credits/Hours</u>
SHMT 091	Occupational Human Relations		1/17
SHMT 092	Occupational Communications		2/33
SHMET 094	Applying Safety Principles		5/80
SHMET 097	Occupational Math Principles		5/80
SHMET 101	Layout Math		2.5/40
SHMET 105	Material Handling Technology		2.5/40
SHMET 106	Using Hand Tools Technology		3.5/60
SHMET 107	Using Metalworking Machines Technology		5/80
SHMET 109	Technology of Seams and Locks		3.5/60
SHMET 111A	Fittings Fabrication I		7.5/125
SHMET 111B	Fittings Fabrication II		9/150

Certificate of Competency: 79.5 credits

Sheet Metal Technician

Completion Range: 12-17 Months			<u>Credits/Hours</u>
SHMT 091	Occupational Human Relations		1/17
SHMT 092	Occupational Communications		2/33
SHMET 094	Applying Safety Principles		5/80
SHMET 095	Reading Blueprints		10/164
SHMET 097	Occupational Math Principles		5/80
SHMET 098	Basic Welding		11/180
SHMET 101	Layout Math		2.5/40
SHMET 105	Material Handling Technology		2.5/40
SHMET 106	Using Hand Tools Technology		3.5/60
SHMET 107	Using Metalworking Machines Technology		5/80
SHMET 109	Technology of Seams and Locks		3.5/60
SHMET 110A	Layout Drafting I		7/120
SHMET 110B	Layout Drafting II		3.5/60
SHMET 110C	Layout Drafting III		3.5/60
SHMET 111A	Fittings Fabrication I		7.5/125
SHMET 111B	Fittings Fabrication II		9/150

General Education Requirements

	<u>Credits</u>
90-level or> Human Relations – HREL, PSYCH, SOC or CMST	3
90-level or> Communications – ENGL or CMST	3
90-level or> Mathematics – MATH	3

90-level credit units apply toward meeting certificate requirements, but do not apply toward degree requirements.

Certificate of Training: 43 credits

Sheet Metal - Residential Installations

Completion Range: 6 Months			<u>Credits/Hours</u>
SHMT 091	Occupational Human Relations		1/17
SHMT 092	Occupational Communications		2/33
SMRI 094	Safety Principles		2/33
SMRI 097	Occupational Math Principles		3/50
SMRI 101	Using Hand Tools Technology		3/50
SMRI 102	Metalworking Machines		2/33
SMRI 105	Fittings Fabrication		4/65
SMRI 106	Seams and Locks		2/33
SMRI 111	Pre-Fabricated Components		2/33
SMRI 121	Material Handling Technology		2/33
SMRI 131	Woodworking Tools		1/17
SMRI 132	Installation Carpentry		3/50
SMRI 141	Air Properties		1/17
SMRI 142	Duct Installation		3/50
SMRI 143	Residential Venting		2/33
SMRI 151	Unit Operation		2/33
SMRI 161	Code Principles		2/33
SMRI 171	Gas Piping Technology		2/33
SMRI 175	Duct Design Technology		2/33
SMRI 181	Preventive Maintenance		2/33