

METAL FABRICATION TECHNOLOGY

Curriculum Guide for Academic Year 2014-2015

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Students planning to transfer to a four-year college or university should refer to the ASSIST web site at www.assist.org and consult a counselor before beginning a program of study Please call 562-938-4561 for the LAC, or 562-938-3920 for PCC to schedule a meeting with a counselor. Students may also wish to visit the Transfer Center on either campus.

Program of study leading to:											
Associate in Science (A.S.) Degree											
					In	Completed					
	JIRED COURSES		U	NITS	Progress	Grade					
	LECT 253	OSHA Standards for Construction Safety		2							
	ITFAB 50	Introduction to Metalworking		4							
	ITFAB 220B	Advanced Metal Layout/ Fabrication		4							
	ITFAB 220C	Power Metalworking Machine Operations		4							
	ITFAB 221	Construction Blueprint Reading		2							
	ITFAB 421	Metal Fabrication and Layout		1							
v	VELD 50	Introduction to Welding		4							
		тот	AL UNITS	21							
For graduation with an Associate in Science (A.S.) Degree with a major in Metal Fabrication Technology:											
1. Minimum Unit Requirements: §Any course that appears on a curriculum guide and the General Education Pattern (Plan											
A) may fulfill both major and general education requirements (Approved by College Curriculum Committee Spring 2012).											
For this degree, complete a minimum of 60 units in courses numbered 1-599. Please note that additional elective units											
may be required to meet this minimum based upon courses selected to fulfill General Education for the Associate											
	Degree.										
			units								
		General Education/A.S. § 19	units								
2.	Scholarship: Maintain	an overall grade point average (GPA) of 2.0 (("C" average) b	based c	on all accredite	ed college work					
	applied to the degree, no matter where completed. For this field of concentration, complete each course above with a										
		, or "P" if course is graded on a P/NP basis.									
3.		egree: Complete at least 30 units of the rec			ce at LBCC,	or complete in					
		east 20 units within the last 30 units of work appl									
4.		d of Concentration: Complete fifty percent (50									
		nce; this means at least 9.5-10.5 units of the rearned by exam, where applicable, may be includ		nust de	e completed	at Long Beach					
5.		and Proficiency Requirements: Complete 1		Δ Δ /Δ	S General	Education and					
5.		ts*, otherwise known as "Plan A". For Plan A re									
	online at http://osca.lbc		equilentente, re		and general of						
6.		he degree application form to the Admissions	and Records	office of	during your fir	nal semester of					
		rms are available in the Admissions and Recor									
	Refer to the Schedule	of Classes (http://schedule.lbcc.edu) and clid	ck the "Import	ant Da	ites" link to v	view the actual					
	deadline for each seme										
		ducation/proficiency and the field of concentration									
This catalog year may be any year between the year of initial enrollment to the present, provided continuous enrollment is											
maintained throughout. See the catalog for definition of "continuous enrollment".											

Program of study leading to: Certificates of Achievement

EQUIRED COURSES		UNITS	In Progress	Complete Grade
MTFAB 50	Introduction to Metalworking	4		
ELECT 202	Electrical Mathematics	3		
ELECT 253	OSHA Standards for Construction Safety	2		
MTFAB 220C	Power Metalworking Machine Operations	4		
MTFAB 221	Construction Blueprint Reading	2		
MTFAB 421	Metal Fabrication and Layout	1		
WELD 50	Introduction to Welding	4		
	TOTAL UNITS	20		
ertificate: Advanced	Skills 3983		In	Complet
EQUIRED (Complete R	equired + One (1) area of Emphasis)	UNITS	Progress	Complet Grade
MTFAB 50	Introduction to Metalworking	4	<u> </u>	
ELECT 202	Electrical Mathematics	3		
ELECT 253	OSHA Standards for Construction Safety			
	•	2		
MTFAB 220C	Power Metalworking Machine Operations	4		
MTFAB 221	Construction Blueprint Reading	2		
MTFAB 421	Metal Fabrication and Layout	1		
WELD 50	Introduction to Welding	4		
ELECT (1) one of the fo	llowing areas of emphasis:			
dvanced Metal Eabricat	ion and Layout Skills – Complete a minimum of 14 units			
MTFAB 220B	Advanced Metal Layout and Fabrication	4		
MTFAB 220D	CNC Metal Fabrication Systems	4		
MTAB 223	Sheet Metal Duct Systems and Fabrication	2		
DRAFT 201	Introduction to Drafting	4		
dvanced Metal Fabricat	ion and Arc Welding Skills – Complete a minimum of 10 uni	its		
WELD 212	ARC Welding and Fabrication	4		
WELD 413	SMAW Flat/Horz Groove Welds with Backing OR	2 OR		
WELD 414	SMAW Vert & OV/HD Grv Welds w/ Backing OR	2 OR		
WELD 415	SMAW Flat/Horz Open Root Groove Welds OR	2 OR		
WELD 416	SMAW Vert & OV/HD Open Root Groove Welds	2		
dvanced Metal Fabricat	ion and Inert Gas Welding Skills – Complete a minimum of	10 units		
WELD 214	Introduction to Gas Tungsten Arc Welding	4		
WELD 213	Introduction to Semi-Automatic Welding OR	4 OR		
WELD 480	Welding (Inert Gas) OR	2 OR		
WELD 482	Gas Tungsten Arc Welding Basic Joints OR	2 OR		
WELD 482 WELD 483	Gas Metal Arc/Flux Core Arc Welding	2 0 1		
	TOTAL UNITS	<u>-</u> 3034		
		UU U T	L	<u>II</u>

Certificate: Core Skills 3982

AS = 2984; C-ACH (Core Skills) = 3982; C-ACH (Advanced Skills) = 3983 Departmental Phone: 562-938-3051; Web site: http://sheetmetal.lbcc.edu Information on this sheet is subject to change without notice. Any updates to this guide are posted at http://osca.lbcc.edu.

For graduation with a Metal Fabrication Technology (Core Skills or Advanced Skills) Certificate of Achievement:

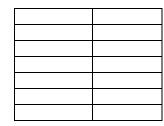
- 1. Complete each of the **REQUIRED COURSES** listed above with a **minimum grade of "C"**, or better, or "P" if course is graded on a P/NP basis.
- Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means: For the Core Skills Certificate, complete at least 10 units of the required 18-20 at Long Beach City College. For the Advanced Skills Certificate, complete at least 14.5-17 of the required 35-37 at Long Beach City College. Credit earned by exam, where applicable, may be included.

Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at http://admissions.lbcc.edu/. Refer to the Schedule of Classes (http://schedule.lbcc.edu) and click the "Important Dates" link to view the actual deadline for each semester.

For the Core Skills Certificate, the following courses are recommended, BUT ARE NOT REQUIRED: RECOMMENDED but not required for the CORE SKILLS Certificate: DRAFT 201 Introduction to Drafting 4

DRAFT 201 Introduction to Drafting
FORK 801 Forklift Safety and Operation
MTFAB 220D CNC Metal Fabrication Systems
MTFAB 223 Sheet Metal Duct Systems and Fabrication
MTFAB 420 Metal Fabrication and Layout
MTFAB 421 Metal Fabrication and Layout
WELD 400 Band Welding

Forklift Safety & Operation



1

4

3

2

1

2

1

For the Advanced Skills Certificate, the following courses are recommended, BUT ARE NOT REQUIRED: RECOMMENDED but not required for the ADVANCED SKILLS Certificate:

FORK 801

Career Opportunities

This Associate Degree will prepare students for entry positions in sheet metal layout, fabrication and installation.

The **Core Skills Certificate of Achievement** will prepare students for an entry-level position as a trainee in sheet metal layout, fabrication and installation.

The Advanced Skills Certificate of Achievement will prepare students for an entry-level position as a trainee in sheet metal layout, fabrication and installation. The Advanced Skills Certificate will place added emphasis on sheet metal CNC fabrication, drafting and duct system layout and in preparation for acceptance into the Sheet Metal Worker Apprenticeship Program.

Program Mission and Outcomes

The Metal Fabrication Technology program's mission is to provide technical training to meet the demands of the industry and the needs of the individual to demonstrate entry level skills necessary for employment.

Outcomes:

- Perform a common sheet metal layout and fabrication project.
- Perform common metal fabrication using power machinery to produce a fabrication project.
- Demonstrate the ability to read and interpret construction blueprints.

Legend

▲ This course has a co-requisite. Refer to the General Catalog (<u>http://www.lbcc.edu/cat/index.html</u>), the Schedule of Classes (<u>http://schedule.lbcc.edu/</u>), or the online Credit Course Outline (<u>http://wdb-asir.lbcc.edu/coursecurriculum/coursedetails/</u>) for specific co-requisite information.

* CONST 201A (formerly T_I 201A)