

# TOOL DESIGNER

## LONG BEACH CITY COLLEGE Curriculum Guide for Academic Year 2009-2010 Associate in Science and/or Certificate of Achievement

ALL INFORMATION CONTAINED HEREIN IS SUBJECT TO CHANGE WITHOUT NOTICE.

For possible updates to this guide please refer to the following website: <http://osca.lbcc.edu>

### CAREER OPPORTUNITIES

Students prepare for entry-level positions as tool designers in the aerospace or comparable manufacturing industry. Tool designers generate conceptual designs for tools in conformance with defined current tooling engineering standards and practices. Tool designers plan the sequence of operations necessary to layout, fabricate and assemble cost effective tooling.

### DEPARTMENTAL ADMISSION REQUIREMENTS

None. For more departmental information call (562) 938-4718.

#### LEVEL 1 - REQUIRED COURSES

#### UNITS

			In Progress	Completed Grade
	MACHT 50A	Machine Tool Operation and Practices	3	
†	MACHT 50B	Machine Tool Operation and Practices	3	
	DRAFT 201	Introduction to Drafting (F, SP)	4	
	<b>OR</b>	<b>OR</b>	<b>OR</b>	
†	DRAFT 51A	Industrial Drafting I (F, SP)	3	
*†	ELECT 225	Algebra & Trigonometry for Technicians		
	<b>OR</b>	<b>OR</b>	3-4	
*	A more advanced or transferable math course. (Trigonometry is recommended.)			
	<b>Complete One (1) unit from the following:</b>			
	WELD 453AD	Welding (Acetylene Gas)	1	
<b>Subtotal Units</b>			<b>13-15</b>	

#### LEVEL 2 - REQUIRED COURSES

†	DRAFT 51B	Industrial Drafting II	3	
†	DRAFT 60	Geometric Dimensioning and Tolerancing	3	
†	TEC 60AD	Computer Aided Design and Drafting (CADD)	3	
<b>Subtotal Units</b>			<b>9</b>	
<b>TOTAL UNITS</b>			<b>22-24</b>	

#### RECOMMENDED COURSES but not required:

	DRAFT 273	Work Experience - Mechanical Design	4	
	TEC 60AD	Computer Aided Design & Drafting (CADD)	3:3:3	

### LEGEND

† This course has a prerequisite; prerequisite courses must be completed with at least a "C" or "P" grade (see catalog or schedule of classes).

\* This course is an exception to the "double-counting" rule; it may be double-counted.

## GRADUATION REQUIREMENTS

### For **CERTIFICATE OF ACHIEVEMENT:**

This certificate is a one to two year program in occupational/technical areas at Long Beach City College which provides training in job skills and employment opportunities. Complete the required units with a minimum cumulative grade point average of 2.0 ("C" average). Fifty per cent (50%) or more of the unit requirements for this field of concentration must be completed in residence (credit earned by exam, where applicable, may be included).

### For **ASSOCIATE IN SCIENCE DEGREE:**

**NOTE: Effective Fall 2009, Title 5, section 55063 (a) (2) requires that students must complete each course counted toward the major or area of emphasis with a grade of "C" or better or "P" if the course is taken on a "Pass/No Pass" basis.**

The Associate Degree is a two-year college degree awarded by Long Beach City College that includes general education courses and a major. In addition to the requirements for the Certificate of Achievement, complete the A.S. degree requirements specified in the catalog. The requirements for general education/proficiency and the field of concentration need to be from the same catalog year. 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"). Fifty per cent (50%) or more of the unit requirements for this field of concentration must be completed in residence (credit earned by exam, where applicable, may be included).

**NOTE:** To receive a certificate or degree you must submit completed application forms in the Admissions and Records Office during your final semester of course work.

In general, "double-counting" is not allowed. That is, one course may not be used to fulfill both a field of concentration requirement and to fulfill a general education requirement.

***Students interested in transferring to a university to continue their study in this field of concentration or other majors are strongly advised to consult an LBCC academic counselor and refer to the ASSIST website ([www.assist.org](http://www.assist.org)) for major preparation information. Counselors can clarify the different major and admissions requirements at a university. Students may visit the Student Success/Transfer Services Center to access further educational resources. If you need to set up an appointment to see a counselor or schedule the SOAR Test, call LAC (562) 938-4561 or PCC (562) 938-3920.***