



CAREER PATH  
**Industrial & Engineering Technology**

CAREER CLUSTER  
**Architecture and Construction**

CAREER PATHWAY  
**Design/Pre-Construction**



## MECHANICAL ENGINEER

Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of such equipment as centralized heat, gas, water, and steam systems.

### Knowledge and Skills Needed

In addition to courses required for high school graduation, essential skills and knowledge needed for a career as a mechanical engineer are reinforced by taking rigorous and relevant courses, as well as participating in work-based experiences and student organization activities.

*(See the Sample Personal Plan of Study for suggested coursework, activities, and knowledge and skills to pursue in preparation of an occupation in this Career Cluster.)*

### Education Requirements

Occupation	Percent of Missouri employees aged 25 to 44 in the occupation whose highest level of educational attainment is:		
	High School or Less	Some College	Bachelor Degree or More
Mechanical engineers	3.5%	18.3%	78.2%
Engineers	2.5%	16.1%	81.4%
Architecture and engineering	10.3%	31.0%	58.6%

Most Common Educational Level: Bachelor's degree

Note: Be sure to learn whether your occupation has a specific requirement for education or licensing. Apprenticeships are available for more than 240 occupations. Visit [www.oe.doleta.gov/bat.cfm](http://www.oe.doleta.gov/bat.cfm)

### National and State Wage Information

Location	Pay Period	2007		
		Entry*	Median	Experienced**
United States	Hourly	\$27.60	\$34.76	\$43.59
	Yearly	\$57,400	\$72,300	\$90,700
Missouri	Hourly	\$26.55	\$32.59	\$39.21
	Yearly	\$55,200	\$67,800	\$81,600

Based on (\*) lower 25% and (\*\*) upper 25% percentile of wages

### National and State Employment Trends

Mechanical Engineers	Employment		Percent Change	Job Openings*
	2006	2016		
United States	225,800	235,200	+ 4 %	5,830
Missouri	3,300	3,690	+ 12 %	130

\*The estimate for Job Openings includes both turnover that results from people who leave the occupation (e.g. quit, retire, death) and new jobs that are created.

### Educational Opportunities

*Note: This list may not be all inclusive. For more information about Missouri schools and programs, visit [www.dhe.mo.gov](http://www.dhe.mo.gov)*

**East Central College**  
 Union, MO  
 (636) 583-5193  
[www.eastcentral.edu](http://www.eastcentral.edu)

**Missouri University of Science and Technology**  
 Rolla, MO  
 (573) 341-4111  
[www.mst.edu](http://www.mst.edu)

**Saint Louis Community College - Florissant Valley**  
 St. Louis, MO  
 (314) 513-4200  
[www.stlcc.edu/fv](http://www.stlcc.edu/fv)

**Saint Louis Community College - Forest Park**  
 St. Louis, MO  
 (314) 644-9100  
[www.stlcc.cc.mo.us/fp](http://www.stlcc.cc.mo.us/fp)

**Saint Louis University**  
 Saint Louis, MO  
 (314) 977-2222  
[www.imagine.slu.edu](http://www.imagine.slu.edu)

**University of Missouri - Columbia**  
 Columbia, MO  
 (573) 882-2121  
[www.missouri.edu](http://www.missouri.edu)

**University of Missouri - Kansas City**  
 Kansas City, MO  
 (816) 235-1000  
[www.umkc.edu](http://www.umkc.edu)

**University of Missouri - St. Louis**  
 St. Louis, MO  
 (314) 516-5000  
[www.umsl.edu](http://www.umsl.edu)

**Washington University**  
 St. Louis, MO  
 (314) 935-5000  
[www.wustl.edu](http://www.wustl.edu)



**MISSOURI DEPARTMENT OF  
ELEMENTARY AND SECONDARY  
EDUCATION**



[www.dese.mo.gov](http://www.dese.mo.gov)

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