



**Industrial &
Engineering Tech**

Building & Fixing Path



**Industrial &
Engineering Tech**

**-Architecture &
Construction**

-Science & Engineering

**-Transportation &
Logistics**

Marshall High School and Saline County Career Center

Program of Study for the Career Path: Industrial & Engineering Tech Career Cluster: Architecture & Construction Career Pathways: Design and Pre-Construction. Construction. Maintenance and Operations.

This Career Pathway Plan of Study can serve as a guide, along with other career planning materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

Education Levels	Grade	English 4 credits	Math 3 credits	Science 3 credits	Social Studies 3 credits	Other Required Courses 4 credits PE 1 credit Fine Art 1 credit Pract Art 1 credit Health ½ credit Pers Fin ½ credit	Electives 8 Credits Career & Technical Courses and/or Degree Major Courses	Credit Totals each year (25 credits required for graduation)	SAMPLE Occupations Relating to this Pathway
Secondary	9	Eng I (1)	Algebra I (1)	IPC (1)	American History (1)	PE (1) Fine Art (any) (1)	Woods I (1) Explo in Tech (1) Ag Science I (1)		<ul style="list-style-type: none"> • Air Traffic Control • Architect • Carpenter • Civil Engineer • Commercial Pilot or Flight Crew • Cost Estimator • Construction Foreman/Manager • Drafter • Electrical Power-Line Install • Electrician • Electronic Systems Technician • Engineering • Equipment/Material Manager • General Contractor/Builder • Heating, Ventilation, Air Conditioning and Refrigeration Mechanic • Industrial Designers • Insurance Adjustor/Examiner • Interior Designer • Machinist • Pipe Fitters • Plumber • Project Inspector • Safety Director • Sheet Metal Worker • Truck and Bus Driving • Urban and Regional Planner
	10	Eng II (1)	Geometry (1)	Biology (1)	Am. History 2 (1/2) <u>Choose one</u> Sociology (1/2) World Civilizations (1/2) Honors W. Civ. (1/2) Geography (1/2) Contemporary Issues (1/2 or 1)		Ag Science II (1) Stagecraft/Lighting (1) Accounting (1) Woods II (1)		
	11	<u>Choose one</u> Eng III (1) Eng III Wt. (1) Pre AP (1)	Algebra II (1)	<u>Choose one</u> Chemistry I (1) Physics (1) Electricity and Magnetism (1/2)	Government (1)	Personal Finance (1/2) Health (1/2)	Const Trades I (3) Accounting II (1) Ag Structures (1) Ag Construction (2) Arch Drafting (1)		
	12	<u>Choose one</u> English IV Wt. (1) EN 130/160 (1) AP English (1) Tech Writing (1) Myth to Modern (1)	<u>Math Electives</u> College Algebra (1) Honors Adv Math (1) AP Stat (1) Calculus (1)	<u>Science Elective</u> Chemistry II (1)	<u>SS Elective</u> Adv Am History (1)		Comp Bus App I (1) Const Trades II (3)		
Credit Totals in each area								(28 or more)	

*See back for college information.

Area Career Centers		2-Year Community Colleges	4-Year Colleges	High School Activities
Postsecondary	Saline County Career Center http://www.marshallschools.com/sccc/index.html	Linn State Technical College www.linnstate.edu	Central Methodist University www.centralmethodist.edu	FFA Skills USA TSA
		Metropolitan Community Colleges www.mcckc.edu	Missouri State University, Springfield www.missouristate.edu	
		Moberly Area Community College www.macc.edu	Missouri Valley College www.moval.edu	
		Ozarks Technical Community College www.otc.edu	Northwest Missouri State University www.nwmissouri.edu	
		State Fair Community College www.sfccmo.edu	Truman State University www.truman.edu	
			University of Central Missouri www.ucm.edu	
			University of Missouri-Columbia www.missouri.edu	
			University of Missouri-Kansas City www.umkc.edu	
			MO University of Science & Technology www.ust.edu	

Industry Based Certifications obtained through SCCC programs: Construction Trades, OSHA 10 Certificate. Occupational Safety and Health Administration



Associate of Applied Science (AAS) in Construction Technology 2012-2014 Advising Worksheet



Please consult your advisor for the order in which courses should be taken

Advisors for this major:

Shannon Heusinkveld, ph. 660-596-7258

sheusinkvled@sfccmo.edu

Prerequisite Information

P= Course has a prerequisite or minimum placement score

Skill Enhancement Courses

Some or all of the following skill enhancement courses may be required depending on your ACT, ASSET, or COMPASS scores. Courses with numbers below 100 will not apply toward graduation requirements. Your advisor will help you determine which of these courses, if any, you will need to take. In many cases, they must be taken your first semester.

- | | |
|--|---|
| <input type="checkbox"/> BSKL 002 Introduction to Reading Skills | 3 |
| <input type="checkbox"/> BSKL 003 Introduction to Sentence Skills | 3 |
| <input type="checkbox"/> BSKL 004 Introduction to Math Skills | 3 |
| <input type="checkbox"/> BSKL010 Introduction to Paragraphs | 3 |
| <input type="checkbox"/> BSKL 014 Introduction to Reading Concepts | 3 |
| <input type="checkbox"/> BSKL 015 Reading | 3 |
| <input type="checkbox"/> BSKL 020 Introduction to Essays | 3 |
| <input type="checkbox"/> BSKL 061 Pre-Algebra | 3 |
| <input type="checkbox"/> BSKL 064 Elementary Algebra | 3 |

Graduation Information

- Completed the minimum required hours?
- Completed all required courses?
- 15 hours completed at SFCC?
- Transferring credit back & Registrar approved?
- MO Constitution requirement met?
- GPA (A minimum of 2.0 Institutional and overall is required for graduation)
- Exit Exam scheduled/taken?
- Application for Graduation completed? (Students should apply for graduation immediately after enrolling for their last semester)

This degree is accredited by the
American for Construction Education

www.acce-hq.org



	✓	Degree Requirements	
		CAD105 Print Reading	3
		CAD111 Introduction to Computer Drafting	3
		CNST101 Construction Materials and Methods I	3
		CNST113 Construction Management	3
	P	ENGL101 English Composition I (or) ENGL112 Technical Writing	3
	P	MATH 108 Technical Math II (or) MATH114 College Algebra	3
	P	Science Course - BIO, CHEM, EASC (or) PHYS	3
		CNST103 Construction Materials and Methods II	3
		CNST162 Construction Safety	3
	P	CAPP125 Microcomputer Applications	3
		CAD120 Architectural Drafting	3
	P	HIST101 U.S. History Before 1877 (or) HIST102 U.S. History Since 1877 (or) POLS101 American/National Government	3
		CNST142 Building Mechanical Systems	3
		CNST148 Construction Codes and Laws	3
	P	ACCT101 Principles of Financial Accounting	3
	P	BADM101 Introduction to Business (or) BSMT106 Principles of Marketing (or) BSMT108 Principles of Management (or) BSMT115 Principles of Supervision	3
	P	ENGL110 Business Communications (or) SPTH101 Public Speaking	3
		Wellness Course (see choices below)	1
	P	SS120 Employment Strategies	1
		CNST106 Construction Estimation	3
		CNST138 Construction Planning and Scheduling	3
	P	CNST160 Statics and Strength of Materials	3
	P	Program Electives (see choices below)	6
Degree Total			68

Program Electives - Select 6 hours:

BADM, BSMT, CAD, CNST, ECON, IEM, MACH, SPAN, (or) WELD

Wellness Course - Select one course from the following:

EDUC110, HLTH101, WELL116, WELL117, WELL118, WELL119, WELL121, (or) WELL122

Not all courses are offered every semester

This worksheet is to be used as a guide and may be subject to change without prior notice. Updated 3-21-12.

Marshall High School and Saline County Career Center

Program of Study for the Career Path: Industrial & Engineering Tech Career Cluster: Science & Engineering Career Pathways: Engineering and Technology. Science and Math

This Career Pathway Plan of Study can serve as a guide, along with other career planning materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

Education Levels	Grade	English 4 credits	Math 3 credits	Science 3 credits	Social Studies 3 credits	Other Required Courses 4 credits <small>PE 1 credit Fine Art 1 credit Pract Art 1 credit Health ½ credit Pers Fin ½ credit</small>	Electives 8 Credits <small>Career & Technical Courses and/or Degree Major Courses</small>	Credit Totals each year <small>(25 credits required for graduation)</small>	SAMPLE Occupations Relating to this Pathway
Secondary	9	Eng I (1)	Algebra I (1)	IPC (1)	American History (1)	PE (1) Fine Art (Any) (1) Keyboarding (1)	Explo in Tech (1) Comp Serv Repair (1) Ag Science I (1)		<ul style="list-style-type: none"> • Aerospace Engineer • Agricultural Engineer • Analytical Chemist • Anthropologist • Architectural Engineer • Astrophysicist • Biomedical Engineer • CAD Technician • Civil Engineer • Computer Programmer • Geologist • Geothermal Engineer • Math Teacher • Mathematician- • Metallurgist • Statistician • Survey Technician
	10	Eng II (1)	Geometry (1)	Biology (1)	Am. History 2 (1/2) Choose one Sociology (1/2) World Civilizations (1/2) Honors W. Civ. (1/2) Geography (1/2) Contemporary Issues (1/2 or 1)		Ag Science II (1) Web page Design (1)		
	11	Choose one Eng III (1) Eng III Wt. (1) Pre AP (1)	Algebra II (1)	Choose one Chemistry I (1) Physics (1) Electricity and Magnetism (1/2)	Government (1)	Health (1/2) Personal Finance (1/2)	Network Tech I (1) Arch Drafting (1) Computer Business Applications (1) Graphic Design (1)		
	12	Choose one English IV Wt. (1) EN 130/160 (1) AP English (1) Tech Writing (1) Myth to Modern (1)	<u>Math Electives</u> College Algebra (1) Honors Adv Math (1) Calculus (1) AP Statistics (1)	<u>Science Electives</u> Chemistry II (1) Physics (1) AP Biology (1)	<u>SS Elective</u> Adv Am History (1) Contemporary Issues (1)		Network Tech 2 (1)		
Credit Totals in each area							(28 or more)		

*See back for college information.

Area Career Centers		2-Year Community Colleges	4-Year Colleges	High School Activities
Postsecondary	Saline County Career Center http://www.marshallschools.com/sccc/index.html	Linn State Technical College www.linnstate.edu	Central Methodist University www.centralmethodist.edu	TSA Skills USA Science Club
		Metropolitan Community Colleges www.mcckc.edu	Missouri State University, Springfield www.missouristate.edu	
		Moberly Area Community College www.macc.edu	Missouri Valley College www.moval.edu	
		Ozarks Technical Community College www.otc.edu	Northwest Missouri State University www.nwmissouri.edu	
		State Fair Community College www.sfccmo.edu	Truman State University www.truman.edu	
			University of Central Missouri www.ucm.edu	
			University of Missouri-Columbia www.missouri.edu	
			University of Missouri-Kansas City www.umkc.edu	
			MO University of Science & Technology www.ust.edu	

Marshall High School and Saline County Career Center

Program of Study for the Career Path: Industrial & Engineering Tech

Career Cluster: Transportation, Distribution and Logistics Career Pathway: Facility and Mobile Equipment Maintenance

This Career Pathway Plan of Study can serve as a guide, along with other career planning materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

Education Levels	Grade	English 4 credits	Math 3 credits	Science 3 credits	Social Studies 3 credits	Other Required Courses 4 credits PE 1 credit Fine Art 1 credit Pract Art 1 credit Health ½ credit Pers Fin ½ credit	Electives 8 Credits Career & Technical Courses and/or Degree Major Courses	Credit Totals each year (25 credits required for graduation)	SAMPLE Occupations Relating to this Pathway
Secondary	9	Eng I (1)	Algebra I (1)	IPC (1)	American History (1)	PE (1) Fine Art (Any) (1) Keyboarding (1)	Explo in Tech (1) Ag Science I (1)		<ul style="list-style-type: none"> • Airplane Pilot/Co-Pilot • Air Traffic Controller • Auto Body Repair • Automotive Technology • Aviation Maintenance Technology • Boat Maintenance & Repair • Diesel Technology • Electrical & Electronics Equip' Installation & Repair • Avionics Technician • Cargo and Freight Agent • Customs Inspector • Facility engineer • Industrial Equipment Mechanic • Industrial Mechanics • Industrial and Packaging • International Logistics Specialist • Locomotive Engineer • Marine Captain • Mechanics & Maintenance • Motorcycle Repair • Port Manager • Safety Analyst • Small Engine Repair • Storage and Distribution Manager • Transportation Manager • Truck Driver • Warehouse Manager
	10	Eng II (1)	Geometry (1)	Biology (1)	Am. History 2 (1/2) <u>Choose one</u> Sociology (1/2) World Civilizations (1/2) Honors W. Civ. (1/2) Geography (1/2) Contemporary Issues (1/2 or 1)		Accounting 1 (1) Ag Science II (1)		
	11	<u>Choose one</u> Eng III (1) Eng III Wt. (1) Pre AP (1)	Algebra II (1)	<u>Choose one</u> Chemistry I (1) Physics (1) Electricity and Magnetism (1/2) Environmental Sci (1)	Government (1)	Health (1/2) Personal Finance (1/2)	Auto Mechanics I (3) Arch Drafting (1) CBA (1) Ag Construction (2)		
	12	<u>Choose one</u> English IV Wt. (1) EN 130/160 (1) AP English (1) Tech Writing (1) Myth to Modern (1)	<u>Math Elective</u> College Algebra (1) Honors Adv Math (1) Calculus (1) AP Statistics (1)	<u>Science Electives</u> Physics (1) Chemistry II (1)			Auto Mechanics II (3) Accounting II (1)		
Credit Totals in each area							(28 or more)		

*See back for college information.

Area Career Centers		2-Year Community Colleges	4-Year Colleges	High School Activities
Postsecondary	Saline County Career Center http://www.marshallschools.com/sccc/index.html	Linn State Technical College www.linnstate.edu	Central Methodist University www.centralmethodist.edu	Skills USA TSA
		Metropolitan Community Colleges www.mcckc.edu	Missouri State University, Springfield www.missouristate.edu	
		Moberly Area Community College www.macc.edu	Missouri Valley College www.moval.edu	
		Ozarks Technical Community College www.otc.edu	Northwest Missouri State University www.nwmissouri.edu	
		State Fair Community College www.sfccmo.edu	Truman State University www.truman.edu	
			University of Central Missouri www.ucm.edu	
			University of Missouri-Columbia www.missouri.edu	
			University of Missouri-Kansas City www.umkc.edu	
			MO University of Science & Technology www.ust.edu	

Industry Based Certifications obtained through SCCC programs: Auto Technology, NATEF certified

**ARTICULATION AGREEMENT
STATE FAIR COMMUNITY COLLEGE**

College Program: Automotive Technology
 Area Technical School: Saline County Career Center, Marshall

*Recommended Prerequisite Courses that **do not** articulate:*

Applied Communications	Computer Operation+
Keyboarding+	Applied Mathematics I
Applied Mathematics II	Principles of Technology

+ May be middle school or high school course.
 *Suggested higher level courses

Automotive Technology Courses available for articulation:

<u>CTE Course</u>	<u>SFCC Course</u>	<u>Credit Hours</u>
Automotive Technology (1 yr.)	AUTO100 Intro to Auto Tech AUTO### ASE Areas*	3
Automotive Technology (2 yr.) AND Pass NATEF Test w/ 75% or higher or pass other TSA (specified on the Recommendation Form along with student score)	AUTO113 Steering, Suspension & Wheels AUTO115 Automotive Brakes AUTO116 Automotive Electrical System Fundamentals	5 5 3

* As tested by ASE

Criteria for Articulation:

- a. Student meets the basic standards for credit as defined in the General Articulation Agreement including earning a "B" (3.0) or better in the above courses.
- b. Student contacts the SFCC Admissions Office to verify that admissions file is complete. **Be sure to identify themselves as a student enrolling with articulated credit.** Student makes an appointment with the Articulation/Academic Counselor to enroll.
- c. School (or student) submits a completed Recommendation for Articulated College Credit form to the Office of College & Career Readiness – Dual Credit.

Rusty Wilson
 Technical School Instructor

5-3-12
 Date

Justin Holcomb
 SFCC Instructor

05-08-12
 Date



Associate of Applied Science (AAS) in Automotive Technology 2012-2014 Advising Worksheet



Please consult your advisor for the order in which courses should be taken

Advisors for this major:

Troy Holbrook, ph. 660-596-7243

tholbrook@sfccmo.edu

Prerequisite Information

P= Course has a prerequisite or minimum placement score

Skill Enhancement Courses

Some or all of the following skill enhancement courses may be required depending on your ACT, ASSET, or COMPASS scores. Courses with numbers below 100 will not apply toward graduation requirements. Your advisor will help you determine which of these courses, if any, you will need to take. In many cases, they must be taken your first semester.

- BSKL 002 Introduction to Reading Skills 3
- BSKL 003 Introduction to Sentence Skills 3
- BSKL 004 Introduction to Math Skills 3
- BSKL010 Introduction to Paragraphs 3
- BSKL 014 Introduction to Reading Concepts 3
- BSKL 015 Reading 3
- BSKL 020 Introduction to Essays 3
- BSKL 061 Pre-Algebra 3
- BSKL 064 Elementary Algebra 3

Graduation Information

- Completed the minimum required hours?
- Completed all required courses?
- 15 hours completed at SFCC?
- Transferring credit back & Registrar approved?
- MO Constitution requirement met?
- GPA (A minimum of 2.0 Institutional and overall is required for graduation)
- Exit Exam scheduled/taken?
- Application for Graduation completed? (Students should apply for graduation immediately after enrolling for their last semester)

	✓	Degree Requirements	
<i>*Courses to complete with a grade of C or higher</i>			
		*AUTO100 Introduction to Automotive Technology	3
P		*AUTO116 Automotive Electrical System Fundamentals	3
P		*AUTO118 Advanced Automotive Electrical and Electronics	3
P		*AUTO106 Power Train Management	5
P		*AUTO103 Manual Transmissions, Drivelines and Axles	5
P		*AUTO105 Automatic Transmissions	5
P		*AUTO113 Steering, Suspension and Wheels	5
P		*AUTO115 Automotive Brakes	5
P		*AUTO119 Automotive Heating and Air Conditioning	5
P		*AUTO108 Advanced Engine Performance	6
P		*AUTO121 Automotive Engines	6
P		ENGL101 English Composition I (or) ENGL112 Technical Writing	3
P		MATH 107 Technical Math I	3
P		MATH 108 Technical Math II	3
P		HIST101 U.S. History Before 1877 (or) HIST102 U.S. History Since 1877 (or) POL101 American/National Government	3
		Wellness Course (see choices below)	1
P		PHYS125 Technical Science	4
P		SS120 Employment Strategies	1
Degree Total			69

Wellness Course - Select one course from the following:

EDUC110, HLTH101, WELL116, WELL117, WELL118, WELL119, WELL121, (or) WELL122

**Automotive
Service
Excellence**



Not all courses are offered every semester

This worksheet is to be used as a guide and may be subject to change without prior notice. Updated 3-21-12.