



# Manufacturing Individual Graduation Plan

## MAINTENANCE, INSTALLATION AND REPAIR\*

This career cluster plan of study is a source of information as you develop your own personal learning plan. This plan meets all Idaho high school graduation requirements as well as entrance requirements for Idaho postsecondary institutions within the IT Career Cluster.



Coursework					
Subject	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade	Advanced Coursework for Postsecondary Credit
<b>Language Arts</b> <i>(9 credits)</i>	English 1A&1B	English 2A&2B	English 3A&3B	English 4A&4B Speech	APPACAD 111 Applied Communications APPCAD 221 Technical Report Writing
<b>Mathematics</b> <i>(6 credits)</i>	Algebra I A& IB OR Algebra II A&B OR Geometry A&B	Algebra II A&B OR Geometry A&B OR Pre-Calculus A&B	Algebra II A&B OR Pre-Calculus A&B OR Calculus IA & IB	Business and Consumer Math OR Calculus IA & IB OR Calculus IIA&IIB	APPACAD 139 Technical Math
<b>Science</b> <i>(6 credits)</i> <i>(1 credit health)</i>	Earth Science	Biology Health	Physics AND Chemistry(Elective)	Chemistry(Elective)	
<b>Social Studies</b> <i>(5 credits)</i>		US History Comprehensive A&B	American Government A&B	<i>Consumer Economics &amp; Seminar</i>	
<b>Idaho Professional-Technical Education/Other Classes</b>	<i>TI0550Tech Tools</i> <i>TI0550 Computing and Internet Core</i>  <i>OT 0100 School to Work</i>	<i>TI 0551, TI 0501 Hardware and Electronics</i>  <i>OT0100 Includes Career Explor and Employ Prep</i>	<i>TI0501, TI502 Electronics 1,2,3,4</i> <i>TI 501, TI502 EPE: Principles, Microcontrollers, CAD, Projects</i>  <i>OT0100 Includes Career Explor and Employ Prep</i>	<i>TI 0502 EPE-Intermediate Electronics</i> <i>TI0503 EPE-Advanced Electronics</i>  <i>OT 0100 Consumer Economics &amp; Seminar</i> <i>TI9805 &amp; OT0110, OT0120, OT0130, OT0140 Internship</i>	Eltr 121/122 Intro to Electronics with Lab; Eltr 123/124 Electronics with DC Theory/Lab; Eltr 125/126 AC theory w/Lab; ELCTEC 151 DC Electronic Theory/Lab; ELECTEC 152 AC Electronic/Lab
<b>Additional Requirements or Electives</b>	Spanish 1A&2B Fitness Tutorial Citizenship & Professionalism	Spanish 2A&2B Citizenship & Professionalism	Spanish 3A&3B OR World Perspectives & Business and Human Relations Citizenship & Professionalism	Senior Project Citizenship & Professionalism	
Extended Learning					
<b>School-Based</b>	SkillsUSA Service Learning Projects				
<b>Community-Based</b>	Short-term Business Projects Part-Time Employment Computers for Kids	At least 5 hours of community service required each year At least 2 Industry Field Trips			Volunteer Industry Job Shadow

Italic lettering indicates class competencies are met through more than one class at MTCHS.

■ Technical Coursework					
This does not include all classes required for certificates or degrees. See college web sites for more information and coursework is subject to change.					
Major	Year 13	Year 14	Year 15	Year 16	Occupations Relating to This Pathway
Option 1 Associate Degree Electronics Idaho State University	Eltr 121/122 Intro to Electronics with Lab* Eltr 123/124 Electronics with DC Theory/Lab* Eltr 125/126 AC theory w/Lab* ELTR 127 Electronic Principles Eltr 133/134 Principles of Control Devices Theory/Lab ELTR 135/136 Fundamentals of Digital Device Theory/Lab	Electromechanical Electronics Systems Tech Laser Instrumentation and Automation Electronic Wireless Telecommunications Tech			Biomedical Equipment Technician; Communication System Installer/Repairer; Computer Installer/Repairer; Computer Maintenance Technician; Computer Engineer; Electrical Equipment Installer/Repairer; Electrical Engineer; Facility Electrician; Industrial Electronics Installer/Repairer/Manager; Industrial Machinery Mechanic; Industrial Maintenance Technician; Electrician; Industrial Maintenance Technician/Mechanic; Instrument Calibration and Repairer; Instrument Control Technician; Laser Systems Technician; Maintenance Repairer; Major Appliance Repairer; Security System Installer
Option 2 Associate Degree Electronics Technology Boise State University	ELCTEC 151 DC Electronic Theory/Lab* ELECTEC 152 AC Electronic/Lab* ELCTEC 162/163 Intro to Digital Systems/Lab ELCTEC 172/173 Solid State Devices/Lab ELCTEC 201 Linear Systems Lab ELCTEC 202 Telecommunications Systems Lab	ELCTEC 225/226 Programmable Logic Controllers ELCTEC 231 Electronic Calculus ELCTEC 241/242 Instrumentation/Lab ELCTEC 251 Linear Systems ELCTEC 252 Telecommunications ELCTEC 264/265 Advanced Digital Systems/Lab ELCTEC 277 Microprocessor Systems/Lab			
Option 3 Bachelor of Science Degree Electrical Engineering Boise State University	ENGR 120 Intro to Engineering COMPSCI 125 Intro to Computing I ECE 230 Digital Systems	ENGR 245 Intro to Material Sci & Eng ECE 210 Intro to Electric Circuits COMPSCI 225 Intro to Computing II ECE 288 SOAT ECE 225/L Circuit Analysis and Design	See College Web Site	See College Web Site	

\*Classes available as Dual Credit or Tech Prep at Meridian Technical Charter High School