

# ONE YEAR MAINTENANCE CERTIFICATE

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Manufacturing Engineering Technology Major  
 Mechanical Engineering Technology Major

Students completing the One Year Maintenance Certificate have demonstrated that they have completed the coursework to be considered for Multi-Skilled Maintenance positions in a manufacturing facility. Multi-skilled maintenance personnel are able to work on electronic, mechanical, hydraulic and pneumatic systems.



## Technical Standards

See [here](#) for details.

Code	Title	Hours
<b>Math Elective</b>		
Minimum 3 Credits		
IMT 1921	Technical Math II	3
MTH 1210	Mathematics I	3
MTH 1370	College Algebra	4
<b>Drafting Elective</b>		
Minimum 2 Credits		
AMT 1040	Blueprint Reading and Schematics	2
IMT 1010	Mechanical and Electrical Print Reading	2
MET 1000	Engineering Graphics with AutoCAD	4
MET 1010	Blueprint Reading and Sketching	3
MET 1050	CAD for Electronics	2
<b>Electrical Elective</b>		
Minimum 2 Credits		
AMT 1070	Basic Electricity and Electronics	3
EET 1110	Circuit Analysis I	3
IMT 2080	Introduction to Electricity	3
IMT 2170	Industrial Motor Drives	2
IMT 2260	Industrial Electronic Controls	3
<b>Fluid Power Elective</b>		
Minimum 2 Credits		
AMT 2010	Electrohydraulics and Pneumatics	4
MET 2310	Fluid Power	3
<b>Mechanical Elective</b>		
Minimum 2 Credits		
AMT 1080	Mechanical Drive Systems	3
AMT 1100	Welding and Fabrication	3
AMT 1180	Tool and Gage Design	2
AMT 1200	Machine Tool Operations	3
IMT 2810	Millwright Tools and Equipment	2
IMT 2820	Mechanical Power Transmission Systems	2
MET 1020	Material Science	3
MET 1110	Manufacturing Processes	3

<b>Technical Elective</b>		
Minimum 18 Credits		
AMT 1020	Preventive Maintenance	2
AMT 2030	Programmable Logic Controllers	3
AMT 2050	Robot Maintenance	3
AMT 2060	Controls and Instrumentation	3
AMT 2550	Fundamentals of Plumbing and Pipefitting	2
AMT 2970	Troubleshooting Capstone	3
EET 1120	Circuit Analysis II	3
EET 1130	Electronics	4
EET 1330	Digital Circuits	4
EET 2030	Motor Controls	3
EET 2310	Microcontroller Fundamentals	4
EET 2900	Electric Codes and Application	2
EET 2910	Programmable Controllers	3
FMS 2110	Basic Robotics and Mechatronics	3
FMS 2130	Industrial Mechatronics and Robotics	3
FMS 2210	CAM/CNC Machining I	3
FMS 2220	CAM/CNC Machining II	3
FMS 2320	Manual Machining I	2
FMS 2340	Numerical Control Concepts	2
IMT 2740	Advanced Refrigeration and HVAC	3
IMT 2750	Wastewater Treatment and Operation	2
IMT 2850	Power Plant Equipment	3
<b>Field Experience</b>		
Minimum 1 Credit		
MET 2991	Field Experience	1
<b>Total Hours</b>		<b>30</b>

See [www.RhodesState.edu/GainfulEmployment](http://www.RhodesState.edu/GainfulEmployment) for additional information on certificates.

-  Portfolio
-  Capstone