WELDING (WLD)

WLD 135 Basic Metallurgy (2 Credits)
This course is a study of the common metals and alloys and welding arc. The history will emphasize the importance of welding theory in today's workforce.

WLD 150 Introduction to Welding (2 Credits)
An introduction to the fundamentals of equipment used in oxyacetylene and arc welding, including welding and cutting safety, basic oxyacetylene welding and cutting, basic arc welding processes and basic metallurgy.

WLD 151 Welding Theory I (3 Credits)
This theory course introduces the processes of Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and Oxy-Fuel Cutting (OFC). Safety for the student such as Personal Protection Equipment (PPE) and safe welding practices in the welding shop are emphasized. Welding and cutting equipment, selection of welding supplies and metals that are used in industry are introduced.

WLD 152 Welding Theory II (3 Credits)
This theory course covers Gas Metal Arc Welding (GMAW), Gas Tungsten Arc Welding (GTAW), equipment and supplies. Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW), Oxy-Fuel Cutting (OFC), Carbon Arc Cutting-Air (CAC-A) are also covered in more detail.

WLD 153 Welding Lab I (5 Credits)
This course gives beginning instruction in laboratory safety, use of Personal Protection Equipment (PPE), with a strong emphasis on the safe handling of welding and cutting equipment. Students learn basic hands-on instruction in Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Oxy-Fuel Cutting (OFC) on various thicknesses of metal, and the techniques used. Welding supplies and equipment maintenance are also covered. Basic elements in Shielded Metal Arc Welding (SMAW) and Gas Metal Arc Welding (GMAW) are practiced and tested.

WLD 154 Welding Lab II (5 Credits)
Instruction will consist of perfecting skilled welding on plate steel in all positions using Shield Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Gas Tungsten Arc Welding (GTAW), Flux-Core Arc Welding (FCAW) and Carbon Arc Cutting-Air (CAC-A). Students will practice and weld plates in accordance to The American Welding Society (AWS) certification guidelines.

WLD 155 Blueprint Symbols for Welding (3 Credits)
Welding symbols are considered an integral part of blueprint reading for the welder. Topics include: welding symbols and abbreviations; basic joints for weldment fabrications; industrially used welds; surfacing back or backing, and melt-thru welds; and structural shapes and joint design. Actual prints from industry are used during this course.

WLD 165 Blueprint Reading for Welders (3 Credits)
This course will cover visualization of the objects' shape, reading the print for finding size and location dimensions, symbols, notes and related information shown on the print.