



## **Advanced Integrated Manufacturing Systems Technology (AIMST) AAS Degree**

The AIMST AAS degree developed by Owens Community College provides business and industry an opportunity to hire from a pool of individuals that have up-to-date skills and broader knowledge than their predecessors. The manufacturing industry is subject to the state of the economy and trends in technology. By providing students with enhanced knowledge of advanced manufacturing and manufacturing processes, the doors of opportunity are open for everyone during the current upturn in industry. Therefore, this degree addresses both the current and emerging needs of industry by providing the technology base manufacturers demand coupled with flexible technical options to accommodate several different industries.

This program provides a core concentration of coursework deemed necessary by industry for those that would like to embark on a career in service and repair of industrial and commercial equipment.

The first semester of instruction provides the basic fundamental skills, science, theory and concepts behind the program. Students are exposed to theory, hands-on applications and experiments rooted in physical science.

The second semester of the program builds on the concepts of the first semester by introducing students to real world applications and technologies used to drive industry and their processes. Students can gain their first certification through the OSHA General Industry course in this semester. Upon conclusion of this semester, students will be prepared to understand technology, its application, and how multiple processes combine to control or drive a process in industry.

The third semester of the program provides the students with an opportunity to connect the processes together through various programming applications including Programmable Logic Control and Computer Numerical Control. This coursework represents the pivot point to newer technologies and applications that are evolving at a significant rate. In this semester, students may begin to specialize in a specific area of concentration as listed on the proceeding pages of this document. Specializations are a key component of this program. It provides students an opportunity to embark down a specific career path, or to generalize their studies.

The final semester of the program rounds the student and diversifies their knowledge by honing their interpersonal skills and, building their specialization skills. Students are exposed to quality assurance as well as concepts of critical thinking, diversity, ethics and lifelong learning.

As demonstrated through the curriculum, this program embraces student outcomes on the college level as well as on the program level by using specific coursework that was identified by the college as core curriculum for assessing student learning.