

## **Manufacturers Education Initiative**

### **A comprehensive plan to create a pipeline of skilled workers for today's Advanced Manufacturing Professions**

Manufacturers in Illinois are faced with a growing problem; the necessity of replacing more than 30,000 manufacturing production professionals each year for the next 15 years due to retirements of the “Baby-Boom” generation. Technological advancements in manufacturing make it mandatory that every successful employee have at least some post-secondary education, but deficiencies in our education system hamper those efforts.

Manufacturers recognize that teachers in K-12 need help in the classroom to bring the concepts in math and science to life and understand that for many teachers, these subjects (particularly math) are especially challenging. Moreover, we need to keep students “connected” to math and science and to career options to help drive down unacceptable dropout rates.

Working with educators and government officials, manufacturers have developed a comprehensive pathway of study to prepare students, career changers, veterans and other at-risk populations for careers as manufacturing professionals. Using industry driven, nationally portable certificates as well as Associate, Bachelor and advanced degrees, the pathway can be easily incorporated into existing curricula and give students a wide variety of career options. With more than 450 credentials available in manufacturing, including many in the chemical industry vertical, there are ample opportunities for success for every student regardless of age or gender.

The pathway of study is based on the concept of “Stackable Credentials” which teaches skills beginning as early as ninth grade. With each credential achievement, additional credentials can be earned in the same manufacturing vertical (i.e., machining, welding, engineering, logistics to name just a few) or individuals can move between verticals to become an invaluable employee. The approach also relies on internships with private sector manufacturers that put into practice what is taught in the classroom.

Manufacturers and educators generally have agreed to the following to assure success.

**Manufacturers want the following from every applicant:**

1. Occupational skills for the career
2. Acceptable soft skills
3. Ability to pass a drug screen
4. Truthful responses to disclosure of background issues
5. Reliable transportation and reliable/flexible child care

**Educators want the following from employers:**

1. Viable internships that put into practice what is taught in the classroom
2. Between-term externships for faculty
3. Some help to assure the right equipment and techniques are being taught
4. A guarantee that successful students will be interviewed for job openings
5. Ongoing dialogue to assure continuous improvement

The Manufacturing STEM Learning Exchange is being developed statewide and is designed to help assure that delivery of the pathway and sharing best practices is available to every school in Illinois. The IMA Education Foundation has been unanimously chosen to lead the Manufacturing STEM Learning Exchange and looks forward to the prospect of working with your school.

Please contact Jim Nelson, Vice President of the IMA, for further details and assistance.