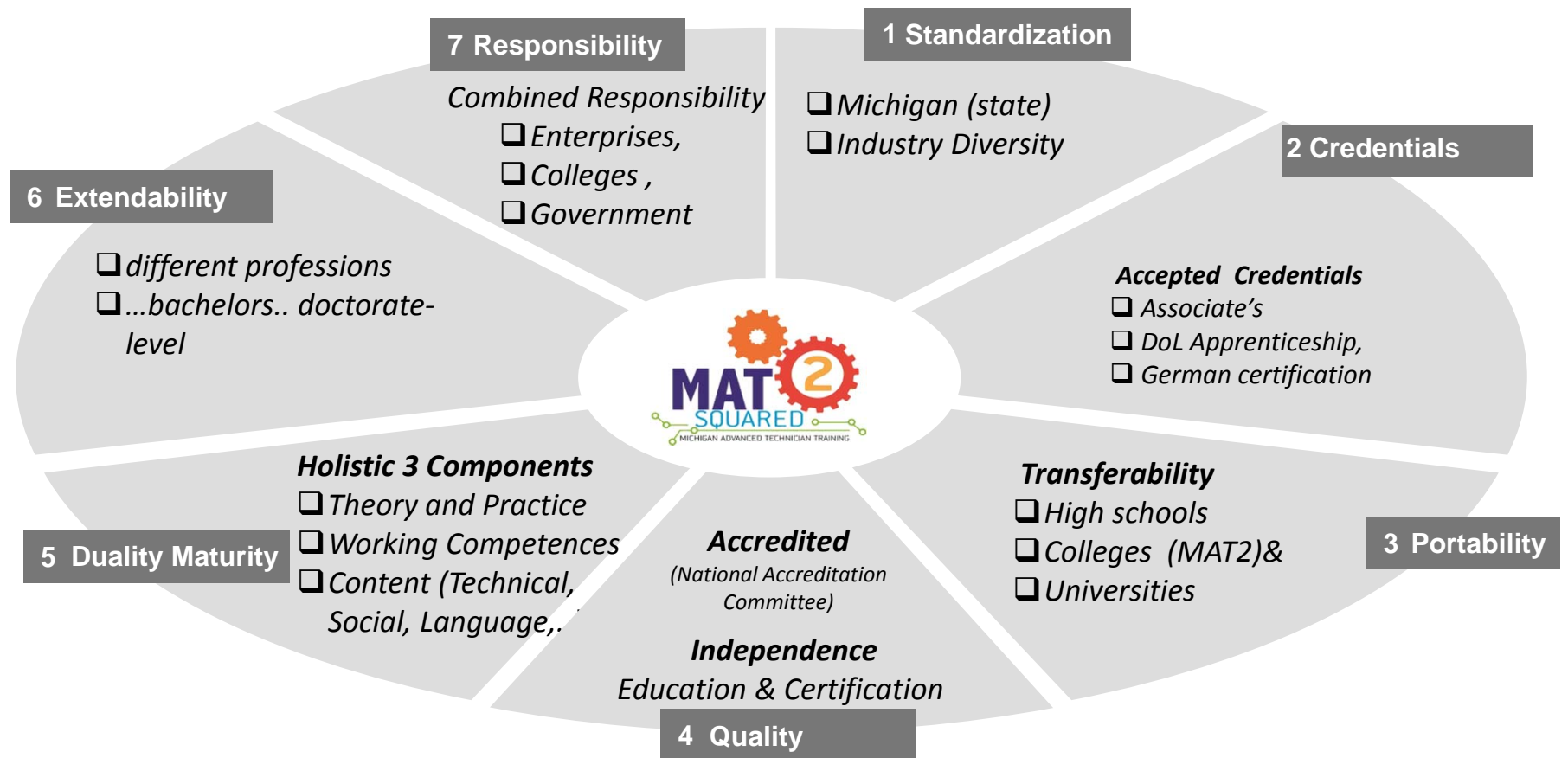




Industrial Design Technician  
Apprenticeship Program

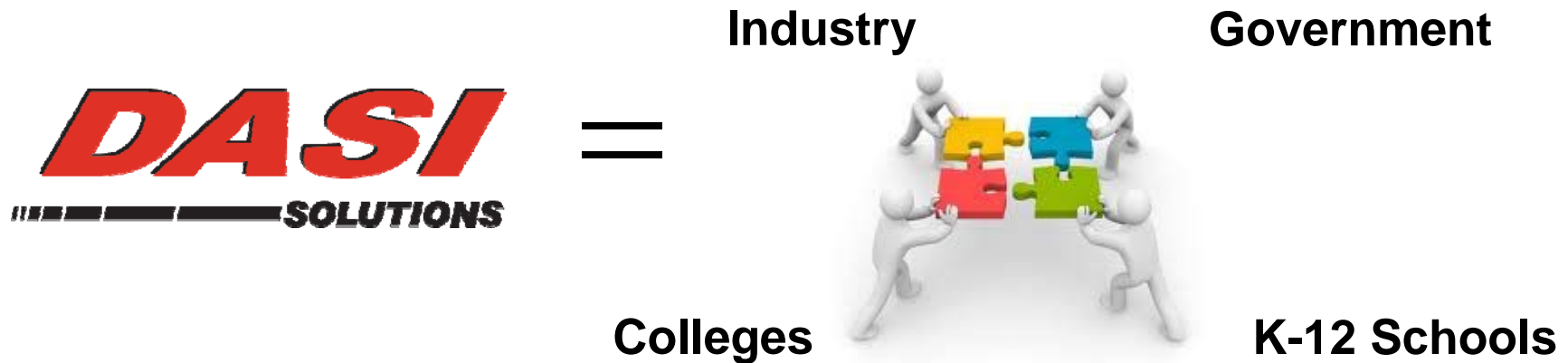
## → MAT<sup>2</sup> Targets and Structure



**MAT2: 7 Major Requirements to fulfill !**

# What is the **DASI Solutions / SOLIDWORKS**

## Industrial Design Technician Apprenticeship Program?



### Intent

- Partnership Approach
- Common Goals
- Social Responsibility
- Work Force Development
- Professional Project Management

### Goals

- Dual Education System
- Education and Training Standards
- Pilot Program (Grand Rapids)
- Second Launch will be in South East Michigan
- Sustainable Model for Growth

## What is **DASI Solutions / SOLIDWORKS** System & Program

A Registered Apprenticeship is a national system that offers on-the-job training in many of today's sought after careers through partnership and businesses like yours.

### The **DASI** System

- A dual education system
- Industry-Driven
- Partnership between industry and educators
- Major System Standards (Processes, tools, agreements) in place
- Standard Process for Development of programs (curriculum, program and learning outcomes)
- Provides US DOL Credentials upon completion - Journeyman's Card
- Can incorporate any profession
- Social responsibility combined with an industry-focused approach

### The **DASI** Program

- First pilot program of the system
- Profession: Industrial Design Technician
- Content Development : Industry and Colleges
- 2 years duration
  - Start date January 2015
  - Completion December 2016
- 24 classes (cohort format)
- 10 - 15 students per lab

# How the **DASI Solutions / SOLIDWORKS** Industrial Design Technician Apprenticeship Program

## Benefits Companies



- A systematic approach to training
- Provide a catalyst for high performance and productivity and a committed workforce
- Increased productivity and knowledge transfer due to on-the-job learning.
- Pipeline of well-trained talent - Bridging today's skills gap
- Internationally accredited tests and standards
- Industry Recognized Certifications
- Impart the knowledge and skills of experienced workers to new employees
- Offer an excellent return on your training investment
- Add a valuable inducement for recruiting and retaining a high quality workforce
- Increase employee retention
- May qualify for other financial support (MI Works)

## **DASI Solutions: Partnership with the US Department of Labor (US - DOL)**



A partnership with the DOL will provide **SOLIDWORKS** companies with:

- A nationally recognized credential
- National Visibility and Political Support (recognition)
- Network of Potential Industry Partners
- A national model and pipeline of talent
- The basis and standards for future MAT2 professions



### **Apprentices and Participation Trends**

In FY 2013, more than 164,000 individuals nationwide entered the apprenticeship system.

Nationwide, there are over 375,000 apprentices currently obtaining the skills they need to succeed while earning the wages they need to build financial security.

In FY 2013, over 52,000 participants graduated from the apprenticeship system.

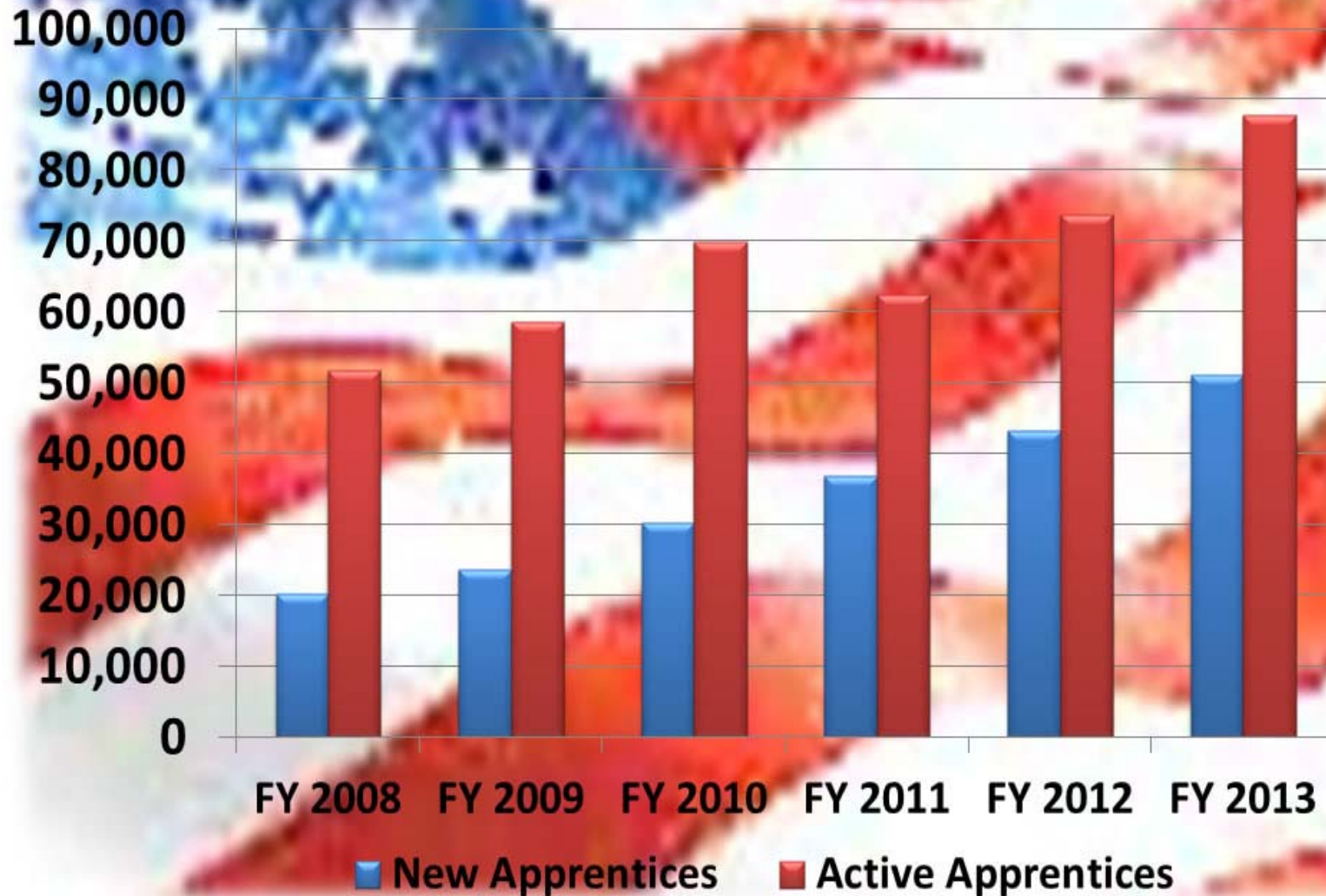
### **Apprenticeship Sponsors and Trends**

There are over 19,000 registered apprenticeship programs across the nation.

In FY 2012, 1,500 new apprenticeship programs were established nationwide.

At the successful completion of the on-the-job and instructional learning, apprentices receive an industry-issued, nationally recognized portable certificate of completion

## USMAP: Active and New Apprentices





# **DASI Solutions**

## **Industrial Design Technicians**

- Registered Apprenticeship is a national system through the US Department of Labor that offers on-the-job training combined with classroom experience.

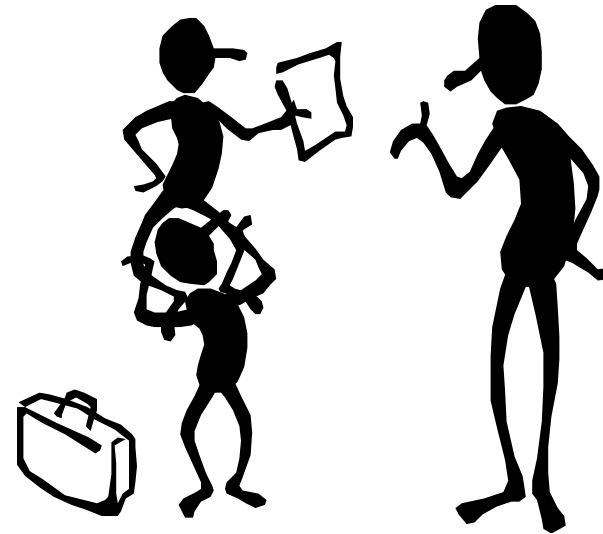
# What is Involved in this Proven Training Strategy?

Basically there are Two Components

- Classroom Training

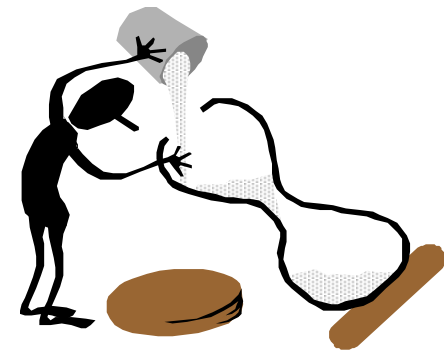


- On-the-Job Training



# What is Related Instruction?

- The DASI Apprenticeship requires a 310 hours of Classroom Training over a two year period.
- Classes are held at approved Career and Technical Education Centers, Community Colleges and DASI Solutions.
- Averages one class every six weeks.



# Industrial Design Technician

## 310 Related Classroom Hours Instruction

### CORE CLASSES - Year 1

- Computers - Excel
- Understanding Blueprints (eDrawings)
- Integrated Math 1
- Creating Blueprints
- Integrated Math 2
- CAD Essentials (SW Essentials)
- Integrated Math 3
- CAD 2D Drawings (SW Drawings)
- Assemblies
- Integrated Math 4
- Advanced Parts
- FEA Simulation (Motion & Structures)

### SPECIALIZED CLASSES - Year 2

- Sheet Metal
- Weldments
- Surfacing
- Mold Tools
- Assembly for Tooling
- Large Assemblies Performance
- Detailing Automated Equipment
- Product Documentation (SW Composer)
- 2D Schematics (SW Electrical 2D)
- Mechanical Routing
- Electrical Routing (SW Electrical 3D)
- Plastics (Fill & Flow)
- Cap Stone Project (FIRST Robotics Mentor)

# What is On-the-Job-Training?

- Full time employment equals 2080 per year. The apprenticeship requires 4000 over a two year period.
- The job duties must be relevant to the apprenticeship program. The apprentices works with a skilled Journey Worker or Mentor to provide the opportunity to train in the established work processes

# Industrial Design Technician

## Two Year Work Process Schedule

- Use computer software to generate new design to create designs, concepts, and sample layouts based on knowledge of layout principles and esthetic design concepts- 1,000
- Determine size and arrangement of material - 500
- Confer with clients to discuss and determine product design - 400
- Review final product design and suggest improvements as needed - 300
- Prepare product design or rough drawings, discussing them with clients or supervisors and making necessary changes - 450
- Maintain archive of design, graphics, or previous work products - 350
- Prepare notes and instructions for workers who assemble and prepare final layouts for processing - 400
- Sketch and print charts, graphs, illustrations, and other designs using computer - 200
- Study designs and drawings to plan presentation of products - 200
- Research new software or design concepts - 200
- **Total Approximate Hours- 2,000 per year 4,000 Total**

# How do I Sign Up?

There are two documents in which are needed to operate your apprenticeship program:

- **The Employer Acceptance Agreement**
- **Program Registration and Apprenticeship Agreement**

**David Darbyshire**

Engineer / Co-Owner

DASI Solutions | [www.dasi-solutions.com](http://www.dasi-solutions.com)

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