



**INSTITUTO DEL PROGRESO LATINO**



**MANUFACTURING SKILLS  
STANDARDS COUNCIL  
BRIDGE CURRICULUM**

**regionalintel™**

2009

## COURSE DESCRIPTION

This course is designed to help students advance their careers as professionals in the manufacturing sector. Developed in partnership with the Manufacturing Skill Standard Council, this bridge program will help limited proficiency English speakers strengthen the language skills needed to obtain an MSSC certification. Above all, the MSSC certification is a “portable skill credential” that will help students set themselves apart in a competitive job market as knowledgeable professionals. The ideal candidate for this particular course is one that already has vocational experience in manufacturing, but lacks the language skills that would allow them to advance in the workplace. This 16-week program will expand students’ capacity to communicate effectively as a professional in manufacturing. Through contextualized language learning, students will significantly improve their language skills, learn about fundamental concepts and trends occurring in the field of manufacturing, and align themselves along a career path in manufacturing.

## CORE OBJECTIVES

The following three objectives will be realized throughout the duration of this course:

- 1. Language Learning** - *To significantly improve students’ proficiency in English and command of the common language used in today’s high-tech manufacturing sector.* The MSSC certification program is intended for students with a tenth grade level English proficiency. Students entering this course will have a sixth to eighth grade level of proficiency and are expected to advance at least two levels in preparation for the more advanced context explored during the MSSC certification.
- 2. Career Development** – *To prepare students for a career in today’s high-skilled manufacturing sector.* This core objective focuses on helping students understand the difference between finding a job, and building a *career*. In addition to improving their chances of finding a better job in the short-term, this course aims to help students’ realize their professional vision as a high-skilled professional. To achieve this aim, this course will explore a diverse range of industry topics that will help students channel their career building efforts more productively.
- 3. Industry Knowledge** - *To gain a better understanding of the major concepts and trends dominating today’s manufacturing environment.* Through contextualized language learning, students will read articles, discuss topics, and address case studies that will help them to more efficiently plan their career development. This contextual approach to language learning will also help students channel their time more effectively by giving them a personal stake in the materials learned. Doing so will also help students prepare for the MSSC certification.
- 4. 4.0 - 4.4: Quality Management** – This module will focus on the role of the individual employee and how that person contributes to the continuous improvement and innovation of a manufactured product. The content will cover the various “best practices” currently in use across various sub-industries.

## **CORE COMPETENCIES**

The following competencies will be stressed throughout the duration of this course in preparation for addressing more advanced materials during the MSSC certification:

- 1. Language** - Strengthen students' language skills in reading comprehension, conversational English, grammar, manufacturing-specific vocabulary, and organizational skills in writing.
- 2. Analytics** - Strengthen students' skills in problem solving, critical thinking, and mathematics
- 3. Computing** - Strengthen students' skills in basic computing with an emphasis on data management, organization, and presentation. Computer and web based applications including Microsoft Excel, Explorer, and Word will be used during the course.

## **CORE CONTEXTUAL MODULES**

This 16-week course is divided into four core contextual modules each addressing unique concepts and trends in manufacturing. Each four-week module will aspire to achieve the previously outlined course objectives by engaging students across the three core competencies – Language, Analytics, Computing. Exercises and activities are labeled according to the module and week. For example, an exercise labeled as 3.4 would be at week four of the Production Basics module. Below is a brief description of each module:

- 1. 1.0 - 1.4: World of Manufacturing:** This module is a general overview of manufacturing as a career choice and as a vital sector to the US economy. Content for this course will focus on recent company press releases across the 14 manufacturing sub-industries. Students strengthen key vocabulary and comprehension skills through readings, testing, and discussion on contemporary issues affecting manufacturing.
- 2. 2.0 - 2.4: Safety and Productivity in the Workplace** - The focus of this module will be less on safety procedures and more on the *politics* of safety and productivity. Students will read and discuss articles on working conditions around the world, identify crucial regulatory agencies, and the role of environmental issues shaping the procedures and standards of today's workplace.
- 3. 3.0 - 3.4: Production Basics** - This module will focus on building students' workplace vocabulary by looking at different manufacturing processes, materials, tools, and equipment operation. Students will be given an extensive list of terms students should have mastered by the end of the four-week module.

## **CURRICULUM BASICS and CORE ACTIVITY TYPES**

The following activity descriptions outline the contextual language learning methodology. At its base, each activity type is focused on improving students language skills. The 16-week course will be organized around these core activity types.

**Case Study Review** - Students will analyze and discuss selected readings directly related to each core contextual module. Students are expected to think critically about the significance of these articles in the larger context of manufacturing. Readings come from a variety of publicly available sources including news, company websites, press releases, and testimonials.

**Applied Technology** - Students will learn how to manage, collect, organize and present data by creating spreadsheets, drafting technical reports, and researching assigned topics using the internet.

**Bilingual World** - Students will improve their translation and interpretation skills by reviewing manufacturing related context and converting it from source to second language.

**Problem Solving** - Students will sharpen their comprehension and analytical skills by doing team building exercises, mathematical problem solving, and decision.

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