

Certificate Program In Advanced and Nano-Tech Manufacturing Concepts

Attracting and sustaining advanced manufacturing companies in any community requires a skilled workforce. To that end, the Genesee County Economic Development Center, in a partnership with Genesee Community College and the Rochester Institute of Technology, has created a pilot training program to serve as a model for future programs and to prepare our local workforce for advanced manufacturing and high tech jobs. Program participants will receive a certificate in Advanced Manufacturing and Nano-Tech Manufacturing Concepts which will enhance their employability and may encourage them to pursue advanced degree opportunities. This project will benefit both program participants and advanced manufacturing companies. Further, it will help build an educated workforce for potential companies that will locate in our science, technology and advanced manufacturing parks.

The pilot program is being funded by an innovative grant obtained by the Genesee County Economic Development Center, in conjunction with Genesee County, from the NYS Office of Community Renewal. It is being offered at no cost to 24 qualified and selected participants. Individuals who have earned a high school diploma or its equivalent, by June 30, 2011, and have a desire to work in a tech-based manufacturing environment are encouraged to apply.

The intensive 11 week training program will consist of 4 day weeks from 8:00 a.m. to 4:00 p.m. It is set to begin on September 6, 2011 and conclude on November 18, 2011. Training will take place at both the GCC and RIT campuses with transportation provided through the grant from GCC to RIT. Participants will be responsible for their own transportation to and from GCC. Lunch will be provided at both locations daily.

Some component pieces delivered by GCC and RIT will stand independently. Others will be sequenced and merged to work together to take participants from the knowledge level at GCC to a more hands on experience in facilities at RIT. An illustration of this needs based coordination and programming is Lean Production. Program participants will be introduced to Lean Manufacturing at GCC in 12 hours of training, followed by engaging participants in the design and implementation of a lean production system in RIT's Toyota Production Lab.

As necessary, program participants will have math skills brought to entry level standards, receive basic computer instruction and receive "soft skill" and work readiness instruction at GCC and be transported to RIT for introductory advanced manufacturing and nano-tech workshops in quality systems, programmable controls, microelectronics, photovoltaics, surface mount technology, and optics to name a few.

Content covered at GCC includes:	Workshops at RIT include introductory 1 or 2 day hands on experiences in:
Math & Metrics	Cleanrooms & Protocols
Introduction to Blueprint Reading	Lean Production Systems
Introduction to Computer Assisted Drawing(CAD)	Statistical Process Control
Introduction to Lean Manufacturing	Programmable Automation Systems
Work Readiness & Ethics	Packaging Dynamics
Effective Communication & Presentation	Microelectronics & Photovoltaics
Organization & Time Management	Surface Mount Technology
Working as a Unified Team	CAD & Modern Machining
Personal Assessment	Optics
Microsoft Word	Polymer Processing and Characterization
Microsoft Excel	Optoelectronics

Program participants will develop a portfolio through the training process that will serve as an exit project for their certificate and be expected to demonstrate the skills they are acquiring throughout the training. Daily attendance will be required. A “Program Coordinator” will attend sessions with participants, coordinate activities and serve as a resource for program participants.

Expectations for applicants and participants include:

- A strong desire to successfully complete the program and work in an advanced and high tech manufacturing environment
- Commitment to 100% attendance for 44 days over 11 weeks
- Commitment to completion of all activities including a portfolio that will serve as the participants exit project
- Participation in ability and aptitude testing for admission to the program
- Participation in remedial math work, if necessary, at GCC the week prior to the start of the training program
- If selected for participation, attendance at a ½ day orientation at GCC in August 2011
- A commitment to complete follow up surveys after completion of the program

Application Process

The application and selection process will consist of several steps. All applicants will be expected to complete a Customer Registration form (Step 1) at the Genesee County Career Center, including a 15 minute interview at the Career Center and a Program Application (Step 2). Applicants may then be invited to return to the Career Center for ability testing in math and

aptitude testing (Step 3). Finally, applicants may be requested to participate in a follow up interview (Step 4) prior to final selections being made.

Application and Selection Process:

- Step 1: Complete a Customer Registration Form at the Genesee County Career Center, located in the East Town Plaza in Batavia, NY)
- Step 2: Complete a Program Application form
- Step 3: If requested, participate in ability testing in math and aptitude testing at the Career Center
- Step 4: If requested, participate in a follow up interview at a site to be named later.

Participants who are selected for participation will receive a non credit Certificate in Advanced and Nano-Tech Manufacturing Concepts from GCC and will have a GCC transcript reflecting successful completion of content components.

Applications and additional information is available at:

The Genesee County Career Center
587 East Main St., Suite 100
East Town Plaza
Batavia, NY 14020
585-344-2042