The Drake Advantage

Students who attend Drake State Technical College will receive a quality education utilizing a combination of traditional lecture style classes, computer labs as well as hands on experience in our on-site training facilities. Class sizes are typically much smaller than other area institutions of higher education allowing for more one-on-one faculty-student interaction. When we say "Our Graduates Work", we stand behind a commitment to provide the educational opportunities to prepare our students for immediate entry into the workforce.

Getting Started at Drake State

If this is the program you select to pursue at Drake State, getting started is easy.

- **Complete an Application for Admission** and submit to the Admissions Office - Building E.
- Take the **COMPASS Entrance Exam (Room E-5)**. Testing will take approximately one hour.
- **Complete the Free Application for Federal Student Aid (FAFSA)** online @ www.http://studentaid.ed.gov.
- **Attend the New Student Orientation** session held prior to the first day of Regular Registration each semester. This session is designed to provide an overview of the College and the registration process. An academic advisor will help interpret assessment scores.
- **Register for classes** with an advisor.
- **Pay Remaining Fees** in the Business Office - Building A to complete the registration process.

This brochure serves as basic information for those interested in the programs outlined within. For an all-inclusive list of classes and required course numbers, the J.F. Drake State Student Catalog provides the "official" requirements for graduation as outlined by the Alabama Department of Postsecondary Education. A catalog is available from the Admissions Office or online @ www.drakestate.edu.

For specific questions related to this program, contact Adam Clark at 256.551.3144 or adam.clark@drakestate.edu

Equal Employment/Opportunity Institution
Accredited by:

Council on Occupational Education
41 Perimeter Center East, NE, Suite 640
Atlanta, Georgia 30346 • 800.917.2081

Version 2/09

MACHINE TOOL TECHNOLOGY

OurGraduatesWork.

3421 Meridian Street, North • Huntsville, AL 35811
Phone 256.539.8161 • Fax 256.539.6439
1.888.41.drake (37253) • www.drakestate.edu

Program Description

The Machine Tool Technology Program is designed to prepare students for gainful employment in the area of precision machining. The course objectives include learning safe work habits, metallurgy, precision measurement as well as the set up and operation of machine tools that cut and shape metal. Lathes, milling machines, drill presses, saws, grinders and computer numerical control machinery are some of the equipment used in the machine tool technology curriculum.

Career Opportunities

Machine Tool Technology graduates my become employed as a Machinist, Tool & Die Maker, Instrument Maker, CNC Programmer, CNC Operator, Process Engineer or Machine Tool Salesman.

Expected Earnings/Salary

Earnings for Machinists as reported by the 2008-2009 Occupational Outlook Handbook are as follows:

The median hourly earnings are $16.71

The middle 50 percent earn between $13.14 and $20.82 per hour.

The highest 10 percent earn more than $25.31 per hour.

Skills Needed

Successful Machinists are mechanically inclined; work independently; produce detailed, accurate work; possess above average mathematical skills; and are familiar with the operations of various machine tools.

Types of Programs Offered

There are three different levels of training in the Machine Tools Technology Program:

Career Skills Certificate
– Machine Tools Technology
Career Entry Certificate
– Machine Tools Technology
Associate in Applied Technology Degree
– Machine Tool Technology

The varied levels of certification allow each student to customize the amount of training he/she desires based on individual career goals. The basic Career Skills certificate may be utilized as a means for immediate entry into the workforce or serve as a starting point for the Career Entry Certificate. In most cases, the credits received from one certificate level will transfer to a program of a higher level. At the current time, Drake State has established articulation agreements with Alabama A&M University and Athens State University to provide a seamless transfer of credits to a four year institution upon completion of an Associates Degree at Drake State.

Courses for Career Skills Certificate –

Areas I-IV are general education requirements. See Drake State catalog for exact class listings and credit hours.

Area I English/Communications
Area III Natural Sciences/Math/Computer Science
Area IV Core/Technical Concentration
(sample topics listed below)

Manual Machining Certificate
Machining Technology I & II
Metrology
Basic Blue Print Reading
CNC Machining
Basic & Advanced CNC Turning
Basic & Advanced CNC Milling
CNC Graphic Programming Turning
CNC Graphic Programming Milling

Additional requirements include 1 credit hour for Orientation, 1 credit hour for Workplace Skills Preparation and a non-credit entry for Graduation.
Approximate Credit Hours Required: 29

Career Entry Certificate – Machine Tool Technology

Areas I-IV are general education requirements. See Drake State catalog for exact class listings and credit hours.

Area I Basic English
Area II Humanities/Fine Arts
Area III Natural Sciences/Math/Computer Science
Area VI Core/Technical Concentration
(sample topics listed below)

Machining Technology I & II
Metrology
Basic Print Reading for Machinists
Lathe Operations
Milling Machine Operations
Precision Grinding Machine
Special Topics I & II

Additional requirements include 1 credit hour for Orientation, 1 credit hour for Workplace Skills Preparation and a non-credit entry for Graduation
Approximate Credit Hours Required: 56

Associate in Applied Technology Degree – Machine Tool Technology

Areas I-IV are general education requirements. See Drake State catalog for exact class listings and credit hours.

Area I English/Communications
Area II Humanities/Fine Arts
Area III Natural Sciences/Math/Computer Science
Area IV History/Social/Behavior Science
Area VI Core/Technical Concentration
(sample topics listed below)

Introduction to CNC
Basic CNC Turning
Basic CNC Milling
CNC Graphic Programming Turning
CNC Graphic Programming Milling
Machining Technology I & II
Metrology
Basic Print Reading for Machinists
Geometric Dimensioning and Tolerancing
Machining Calculations
Lathe Operations
Milling Machine Operations

Additional requirements include 1 credit hour for Orientation, 1 credit hour for Workplace Skills Preparation and a non-credit entry for Graduation
Approximate Credit Hours Required: 74