



SOUTHERN CALIFORNIA

Machinist Training Since 1968

MACHINIST TRAINING PROGRAM

COURSE CATALOG • JANUARY 2017 - DECEMBER 2017 SANTA FE SPRINGS (MAIN) • ONTARIO (SATELLITE)



Welcome to the NTMA Training Centers of Southern California!

You, our most valued customer, are entering a training program that will allow you to develop skills and knowledge in the manufacturing industry that will serve you throughout your lifetime. The training is demanding and requires you to focus on the study and application of machining methods and techniques. The NTMA Training Centers of Southern California are committed to help you succeed in your studies from start to completion. Your progress is monitored throughout the program to ensure that you accomplish this goal.

You are expected to learn and apply the lessons being taught and to demonstrate these skills. One of the strengths of the training program offered at the NTMA Training Centers of Southern California is the hands-on application of the lessons being taught. You will be prepared to operate the machine equipment being used in machine shops in the manufacturing industry. Instructors at the NTMA Training Centers of Southern California are trained machinists who have received, or are in the process of completing, vocational teaching credentials and are ready to train you in the skills needed to succeed in the manufacturing industry. The key to your success is your desire to learn and work in this fascinating field.

The lessons you learn and the knowledge you gain at the NTMA Training Centers of Southern California helps assure you a place in the forefront of this manufacturing effort.

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This catalog is designed to assist you with your decision in choosing a training program. After reviewing the catalog, we encourage you to visit us and experience firsthand the benefits described. Established in 1968, the NTMA Training Centers of Southern California assist people just like you to succeed!

The learning process depends on your participation. You must be committed to attending every class. The training for this program is very intense. Each lesson builds on the next lesson to give you the foundation needed to learn the machinist profession. Your desire to attend classes and your commitment to learning are the first steps toward good work habits that will assure your success in the machining industry.

Your attendance is carefully monitored. If you miss attending school for any reason you must notify the school immediately. You will be placed on probation if your attendance falls below the attendance requirements listed in this catalog and you will be dismissed from the program if the attendance does not improve.

The NTMA Training Centers of Southern California have modern classrooms, computer laboratories, updated equipment, both conventional and Computer Numerical Control (CNC) machines. You, the student are the final and most important part of the training process. You alone control whether you will succeed or fail in the Machinist Training program.

California statute requires that a student who successfully completes a program of study, be awarded an appropriate certificate verifying that fact. Program completion records will be made available within two weeks after program completion; this allows adequate time for grade and final test compilation, analysis and preparation of the certificate.

The NTMA Training Centers of Southern California are nonpublic, private institutions.

All information and content of this school catalog is current and correct and is so certified as true by:

Executive Directors



Catalog

NTMA Training Centers of Southern California updates this catalog, at a minimum, annually. The catalog is also available on NTMA's website www.trainingcenters.org.

Prospective students receive a catalog prior to enrollment. The general public can request a catalog by visiting and requesting one in person, or reviewing on NTMA's website.

Institutional History

Since 1968, the NTMA Training Centers of Southern California has prepared and furthered the skills of nearly 75,000 men and women for careers in the tooling, machining, and manufacturing industry. The Los Angeles Chapter National Tooling and Machining Association (LA/NTMA) Training Center was founded as a Trust in Boyle Heights, County of Los Angeles, California, in 1968. In 1982, the LA/NTMA Training Centers of Southern California moved to Norwalk. To respond to the increasing demand for skilled machinists in the Inland Empire, an additional satellite facility was opened in Ontario in 1999. In 1999, to better reflect the geographic reach of the Training Centers, the name was changed to the NTMA Training Centers of Southern California (NTMA Training Centers).

Since December 1985, the NTMA Training Centers have been approved to operate by the Bureau for Private Postsecondary Education (BPPE) in compliance with state standards as set forth in the Ed. code. BPPE currently approves the NTMA Santa Fe Springs Training Center location as a Main Campus and Ontario as Satellite Site. The institution was granted accreditation by the Accrediting Commission of Career Schools & Colleges (ACCSC) in 2001 for the Machinist Training Program. On August 5, 2013, the main campus moved to our new location at 12131 Telegraph Road, Santa Fe Springs, Los Angeles County, California. This new two-story training center occupies 42,000 square feet located conveniently between the 91, 5, and 605 freeways.

The NTMA Training Centers have not had a pending petition in bankruptcy; is not operating as a debtor in possession; have not filed a petition within the preceding five years; and have not had a petition in bankruptcy filed against it within the preceding five years that resulted in reorganization under Chapter 11 of the United States Bankruptcy Code.

Mission/Vision Statement Mission

The NTMA Training Centers will provide Machining Education and Training by:

- Preparing qualified candidates for entry level machining jobs.
- Providing advanced machinist training courses to current industry employees.
- Promoting professional work ethics and values to all students.



Vision

To supply the Southern California Machining Industry with a healthy, well-trained workforce while elevating the image of the industry.

Accreditations, Approvals and Memberships

- Accredited by the Accrediting Commission of Career Schools and Colleges (ACCSC), a nationally recognized accrediting agency.
- Approved to operate by the Bureau for Private Postsecondary Education (BPPE), approval to operate means compliance with state standards
- Approved for the training of veterans and eligible persons under the provisions of Section 21.4253 (d) (1) and 21.4254 (b), Chapter 36, Title 38, U.S. Code.
- Designated for referrals by city and county, retraining, rehabilitation and vocational guidance agencies
- Has Voluntary Education Partnership Memorandum of Understanding (MOU) with the Department of Defense (DOD) and eligible to participate in the (DOD) Tuition Assistance (TA) Program.
- Accredited by the National Institute of Metalworking Standards (NIMS)
- NTMA is a Private Institution

Descriptions of Facilities

On August 5, 2013, the main campus moved to our new location at 12131 Telegraph Road, Santa Fe Springs, Los Angeles County, California. This new two-story training center occupies 42,000 square feet located conveniently between the 91, 5, and 605 freeways. The space consists of 9 classrooms, multiple computer laboratories, a large machine shop, a student break area, and administrative offices.

The Santa Fe Springs campus is equipped with all the necessary machining equipment and materials essential to successfully train machinists. Major equipment in the shop and labs includes: Cad/Cam computer workstations, vertical mills, lathes, surface grinders, drill presses, Wire EDM machine, Computer Numeric Control (CNC) machining and turning centers, surface plates, and inspection equipment. The classrooms are designed to accommodate a variety of technological needs. The classrooms are equipped with overhead projectors, televisions and DVD players.

The satellite Ontario campus is located at 1717 S. Grove Ave, Ontario in San Bernardino County, California. This satellite campus occupies 22,000 square feet in a two-story building located in the City of Ontario near the 60, 10 and 15 freeways. The space for this campus consists of 5 classrooms, four computer laboratories, a faculty work area, a workshop, a student break area, administrative offices and large multipurpose room. The student break area is equipped with microwaves, a water fountain, vending machines and a refrigerator.



The satellite Ontario campus is equipped with necessary machining equipment and materials essential for training machinists. Major equipment in the shop and labs includes: computer workstations, vertical mills, lathes, surface grinders, drill presses, CNC simulators, CNC machines, turning centers and wire EDM machines. The classrooms are equipped with overhead projectors, televisions and DVD players.

Administration

Executive Director, Santa Fe Springs Campus
Interim Director, Ontario Campus

Executive Director of Financial Aid & ETP

Executive Director of Education and Training

Executive Director of Human Resources and Accounting

Gina Marinello

Jim "JR" Ragaisis

Norma Meza

Jim "JR" Ragaisis

Carey Knutson

Admission Requirements for the Machinist Training Program

Applicant must:

- Possess a high school diploma, or its equivalent.
- Be interviewed by an Admissions Representative. To apply for enrollment, an applicant may call for an interview appointment. Applicants outside the area may call or write requesting an appointment. The appointment time and date will be confirmed by telephone.
- Tour the campus and have school policies and other pertinent information explained.
- Review the School Performance Fact Sheet and hard copy of the school catalog prior to enrollment.
- Show that he/she is capable of benefiting from the training and pass the Wonderlic Scholastic Level Exam with a minimum score of 12.
- Attend an orientation session.

The school requires a personal, on-campus interview with each applicant prior to acceptance into any program. The school encourages parents and spouses to attend the interview. This gives applicants and their families the opportunity to see the campus' equipment and facilities and to ask specific questions relating to the school, the curriculum, and the career training being considered. The personal interview also gives the school the opportunity to meet prospective students and evaluate their qualifications and aptitude.

Application for Enrollment for the Machinist Training Program

The following items must be completed at the time of application for enrollment:

- The application form;
- Entrance testing;



- The enrollment agreement;
- Various disclosure forms; and
- Payment of the registration fee or arrangements for payment prior to orientation.

High School Diploma or the Recognized Equivalent of a High School Diploma

Statutory Change: Effective July 1, 2012, Public Law 112-74 changed the Federal Student Aid eligibility criteria for students who do not have a high school diploma or the recognized equivalent of a high school diploma. The new law eliminated all but one (completion of a homeschool program) of the eligibility alternatives that were available to them.

This new law affects students who "first enroll in a program of study on or after July 1, 2012," and who are not high school graduates or do not meet the other eligibility criteria as prescribed by law. Anyone without the aforementioned may pay cash or apply for private loans to finance their education. The NTMA Training Centers is currently unable to process private loans on the student's behalf. Attaining either a High School Diploma or GED or its equivalent is encouraged.

Any applicant seeking to attain a GED will be provided with a list of local GED Location Centers.

Students paying cash without a High School diploma or GED will be ATB tested by an independent proctor.

Natural Disaster Disclosure

In the event the prospective student cannot provide their High School Diploma due to natural disasters (i.e. fires, floods, etc), the school will have the prospective student sign an attestation letter, attesting under penalty of perjury, that they graduated High School. The prospective student will attempt to provide any documents, photographs, etc. that prove graduation from High School.

Acceptance by School for the Machinist Training Program

Once the executed enrollment agreement and the required items mentioned above have been completed, the applicant will be informed of his/her acceptance or denial. If the school denies an applicant, all refundable fees paid by the applicant to the school will be refunded. All refundable monies paid by an applicant will be refunded if requested within three days after signing an enrollment agreement and making an initial payment. An applicant requesting cancellation more than three days after signing an enrollment agreement and making an initial payment, but prior to entering the school, is entitled to a refund of all monies paid minus a registration fee.



Veterans Please Refer to Veteran's Information Bulletin

Non-Discrimination

The NTMA Training Centers do not discriminate on the basis of race, color, ancestry, national origin, sex, age, religious creed or marital status in any policies, procedures, or practices. Students who have questions or concerns about this policy should contact their Campus Director.

Language of Instruction

All classes are taught in English. The Training Centers do not offer English as a Second Language classes.

Transfer of Credit

The NTMA Training Centers do not consider prior experiential learning or course work from other institutions transferable for credit units toward any program. Students may transfer from one training center to another within the same program module provided they enter at exactly the same point.

Re-admitted students may apply previous coursework completed at the NTMA Training Centers within the past 12 months contingent upon approval of the Campus Director.

Notice Concerning Transferability of Credits and Credentials earned at our Institution

The transferability of credits you earn at NTMA is at the complete discretion of the institution to which you may seek to transfer. Acceptance of the certificate you earn in machinist training is also at the complete discretion of the institution to which you may seek to transfer. If the (credits or certificate) that you earn at this institution are not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason you should make certain that your attendance at this institution will meet your educational goals. This may include contacting an institution to which you seek to transfer after attending NTMA to determine if your (credits or certificate) will transfer.

Articulation Agreement

NTMA has an articulation agreement with Los Angeles Trade Technical College, a two-year degree granting college. Students, upon completing the Machinist Training program, are allowed to transfer the applied units or credits to the aforesaid college for inclusion in their transcript and course description. The exact transferred credits will be determined upon completing one semester of course work at the LA Trade Technical College and review of the student transcript from the NTMA Training Centers. Students that successfully complete all the requirements for Los Angeles Trade Technical College



will receive an Associate Degree in Arts/Science. The NTMA Training Centers also has an Articulation Agreement with El Camino Community College.

School Calendar

Classes are conducted year-round. Starting dates are based on the availability of students for each program. (Refer to current class schedule.) The NTMA Training Centers observes nine holidays each year on which no classes will be conducted. Subject to scheduling requirements, those holidays may include:

Friday	November 11, 2016	Veteran's Day
Thursday	November 24, 2016	Thanksgiving
Friday	November 25, 2016	Day after Thanksgiving
	Dec. 23, 2016 – Jan. 2, 2017	Winter Break
Tuesday	January 3, 2017	Classes Resume
Monday	January 16, 2017	Martin Luther King Jr. Day
Monday	February 20, 2017	Presidents' Day
Friday	April 28, 2017	In-Service Day, no students
Friday	May 26, 2017	Memorial Day Holiday
Monday	May 29, 2017	Memorial Day
Monday	July 3, 2017	Independence Day Holiday
Tuesday	July 4, 2017	Independence Day
Thursday	July 27, 2017	In-Service Day, no students
Friday	July 28, 2017	Non-Scheduled Day, no students
Monday	September 4, 2017	Labor Day
Friday	October 20, 2017	Non-Scheduled Day, no students
Friday	November 10, 2017	Veterans' Day
Thursday	November 23, 2017	Thanksgiving
Friday	November 24, 2017	Thanksgiving Holiday
	Dec. 21, 2017 – Jan. 1, 2018	Winter Break
Tuesday	January 2, 2018	Classes Resume

The current Holiday Schedule may be requested at any time from a school administrator.

Schedule of Sessions

Classes are held Monday through Friday, both during the day and in the evening with mandatory 20- minute breaks.

Santa Fe Springs Hours of Instruction

Monday through Friday 7:30 a.m. to 12:30 p.m. Monday through Friday 1:00 p.m. to 6:00 p.m. Monday through Friday 6:00 p.m. to 11:00 p.m.



Ontario Hours of Instruction

Monday through Friday 8:00 a.m. to 1:00 p.m. Monday through Friday 1:00 p.m. to 6:00 p.m. Monday through Friday 6:00 p.m. to 11:00 p.m.

Administrative Hours

Monday through Thursday 8:30 a.m. to 7:00 p.m. Fridays 8:00 a.m. to 4:30 p.m.

Grading System for Machinist Training Program

Here at the NTMA Training Centers, you are graded on work performance and homework assignments. This gives you a demonstrated record of the knowledge and skills you have learned during this program.

Grading is based on your demonstrated abilities in the machine shop, homework, classroom participation, quizzes, tests and attendance.

The grade equivalents are listed as follows:

90% to 100%	= A 4.0
80% to 89 %	= B 3.0
70% to 79 %	= C 2.0
60% to 69 %	= D 1.0
Less than 60 %	= F 0.0

Academic Units of Credit

The school uses the traditional system of clock hour to credit hour conversion. The Machinist Training is a 725-hour classroom program with 905-hours of total hours including outside assignments and homework, with instructional time receiving 51.5 quarter credit hours.

Module	Clock Hours	Quarter Credit Hours
Module I	181	10.75
Module II	181	10.25
Module III	181	10.00
Module IV	181	10.50
Module V	181	10.00
	905	51.50



Conversions

One quarter credit hour is equivalent to 10 clock hours of lecture, 20 clock hours of lab. One clock hour equals a minimum of 50 minutes of instruction.

Satisfactory Academic Progress Policy for the Machinist Training Program

Students are assessed for satisfactory progress at periodic intervals (20, 40, 50, 60, 80 and 100 percent). Students must maintain a 2.0 GPA each module.

Students who fall below the satisfactory academic progress standards will be placed on "academic probation" for the next module and are notified in writing. If, at the end of the probationary period, the student has not corrected the progress deficiencies, the student will be terminated. If satisfactory progress is achieved during the probation period, the student is reinstated and no further action is required.

The maximum period that the student will be allowed to complete his/her educational objectives is one and one-half (1.5) times the credit hours required to complete the program. Leave of Absences are not counted in the maximum period.

A = 4.0	B = 3.0	C = 2.0
D = 1.0	F = 0.0	CR = Credit

NC = No Credit E = Exam Credit W = Withdrawal - No credit

I = Incomplete - No credit

If a student does not meet the Satisfactory Academic Progress Policy, a Student Academic Improvement Plan (SAIP) will be implemented and monitored.

Performance Required For Graduation for the Machinist Training Program

The following requirements must be met to qualify for a certificate of completion in the schools training program: achieve a cumulative grade point average of 2.0 or higher and attend at least 80 percent of the scheduled hours of the program; be current on all payments to their student account, and complete all designated requirements of the program.

Drug and Alcohol Prevention Policy

The NTMA Training Centers support and endorse the Federal Drug-Free Workplace Act of 1988 and the Drug-Free Schools and Communities Act amendments of 1989. The unlawful manufacture, distribution, dispensation, possession or use of a controlled substance or abuse of alcohol by a student on Training Center property or as part of any Training Center activity is prohibited. Any student of the Training Centers found to be abusing alcohol or using, possessing, manufacturing or distributing controlled



substances in violation of the law on the Training Centers property or at any Training Centers events shall be subject to disciplinary action. Students who violate this policy may be subject to suspension and/or expulsion from the NTMA Training Centers.

Copyright Infringement Policy

The NTMA Training Centers require all students and faculty to comply with applicable federal, state, and local laws, including copyright laws.

Copyright infringement is the act of exercising, without permission or legal authority. These rights include the right to reproduce or distribute copyrighted work. In the file-sharing programs, context, downloading or uploading substantial parts of a copyrighted work without legal authority constitute infringement.

Violators of this policy will also be subject to penalties including administrative sanction and disciplinary action.

For more information, please see the Web site of the U.S. Copyright Office at www.copyright.gov/help/faq.

Attendance for Machinist Training Program

Students are expected to attend all classes. Regular attendance and punctuality prepares the student for a successful career. During the training, students are expected to arrange their schedule to make non-emergency appointments before or after hours. In case of an emergency or serious illness, the Training Centers must be notified within the first hour of class operation or instruction each day of absence.

Students must attend at least 80% of the scheduled hours of the program for each module. If a student has not attended at least 80% of the scheduled class hours in any module, they will be placed on probation for the next module. If a student fails to meet the minimum attendance requirements during the probation period, the student will be notified in writing and may be terminated from the program. If minimum attendance requirements are met during the probation period, the student is removed from probation. Any student missing 10 consecutive class days will be dropped from their program.

Tardiness/Leave Early

All students are required to sign attendance rosters and be ready for instruction prior to the start of class. Students that are not present or ready for instruction before the start of class will be considered tardy. If a student is tardy or leaves early five or more times for the scheduled classes of the program for any grading period will be placed on Probation. Students will be notified in writing and they may be terminated from the



program. If minimum tardiness /leave early requirements are met during the probation period, the student is automatically released from probation and no further action is required. Students are responsible for making up the missed material covered or exams during the time missed due to tardiness or leaving early.

Warning Notification

A student receives a warning notification prior to being placed on any kind of probation; the notification is received verbally and in writing by the Campus Director and Student Services for the following session. The notification is documented and placed in their Academic File.

Make-up Work

Students that attend the NTMA Training Centers' Machinist Training Program will be required to make up all assignments, exams, or other work missed as the result of any absence. The student must make arrangements with the instructor to ensure that all work is made-up before the end of each module in which the work was missed. Arrangements to take a missed exam must be made with the instructors within two days of returning from an absence. All arrangements are subject to approval by the Campus Director.

Conduct

Students are expected to conduct themselves in a manner appropriate to a professional work environment. Violations of the school's student conduct policy include, but are not limited to, the following: destroying or damaging school property; use of any illegal drugs or alcohol while on school property or attending school while under the influence of illegal drugs or alcohol; cheating on a school examination; exhibiting violence, insubordination, or inappropriate language or behavior toward any school staff or another student. All students are subject to random drug testing. Cell phones and/ or other electronic devices are not allowed during class/shop time. Computer usage is for school related work only. Anyone on any site other than what is school related may be terminated from the school. Violations of the school's student conduct policy may result in immediate termination from the program or the student will be placed on Conduct Probation. Students are expected to adhere to the School's Conduct Policy. Refusal to follow any instructors orders, any acts of disrespect, cursing or displays of inappropriate and unprofessional attitudes to faculty and staff alike, may constitute that the student be placed on "Conduct Probation" that could be imposed for the duration of their training program. If the student exhibits a positive change, the Probation may be cancelled by the Campus Director. A machinist training student placed on probation for any reason remains on probation until the end of that module, then the Campus Director will review their case. At that time the student may be released from probation, remain on probation for next module (subject to review at the end of that period), be terminated from the program or repeat the module.



Leave of Absence for the Machinist Training Program

Students may request a leave of absence (LOA) for medical reasons, financial difficulties, military duty, personal difficulties, and jury duty.

An LOA shall be reasonable in duration, usually not to exceed 120 calendar days. One LOA may be granted during a 12-month period. Students must present a completed Application for Leave of Absence form to the school prior to the start of the LOA. The Campus Director and/or Student Services representative will review the request. The Campus Director and/or Student Services representative will meet with the Financial Aid Officer to determine what effect the LOA will have on the student's financial aid eligibility. After review, the Campus Director will approve or deny the request.

Financial aid recipients requesting an LOA should take into consideration the effect it may have on their financial aid eligibility. Title IV loan recipients may exhaust some or all of their grace period if they fail to return to school from their LOA.

Students must adhere to the following procedures when requesting a leave of absence:

- If the student requests an LOA and the student had already missed 10 consecutive class days, the LOA will not be granted.
- Students cannot be granted an LOA to avoid being dismissed because of lack of satisfactory academic progress or failure to fulfill the requirements of the attendance.
- If the student is not in attendance on their scheduled return date, the student will be dropped.
- Students must continue to keep their accounts current while on a LOA.

Course Repetitions

Students who desire to repeat courses for withdrawals, incompletes and or other issues are to submit their request to Student Services. Request approvals are at the discretion of the Campus Director.

Termination for the Machinist Training Program

A student is subject to termination for violating any of the following: failure to maintain satisfactory academic progress, failure to comply with the school's attendance policy, failure to comply with the school's student conduct policy.



Dismissal/Re-admission

As a general rule, machinist training students that are dropped from the program for unsatisfactory performance, are not re-admitted unless there have been bona fide extraneous circumstances, i.e., an extended illness. In these cases, re-admittance is contingent upon approval from the Campus Director.

Student Complaint and Grievance Procedure

Students are encouraged, at all times, to communicate their concerns to members of the faculty and administration. If a situation arises in which a student has a complaint or grievance regarding grades, instruction or other topics related to their program of study, the following procedure is in effect:

- Make an appointment to discuss the matter with your instructor, if applicable. If not resolved...
- Make an appointment to discuss the matter with the Director of Training. If not resolved...
- Make an appointment to discuss the matter with the Campus Director. If a student is unable to resolve a problem informally, a written grievance may be submitted to the Campus Director.
- The written grievance must be submitted to the Campus Director. An incident Report form is available for students use and may be obtained from the Campus Director. An Incident Report is not required in submitting the written grievance.
- The Campus Director will verify that the student has made an attempt to resolve the concern informally with the Instructor or Director of Training.
- The Campus Director will call a grievance committee hearing within 24 hours of receipt of the written grievance. The committee will be composed of the Campus Director, the Director of Training, and any individuals whose participation is warranted by the circumstances of the particular concern.
- All persons involved with the incident must be present at the time of the hearing.
 Evidence will be presented by the student and then by all other parties involved.
 Minutes will be taken.
- The committee will immediately meet in the absence of those involved to review the evidence and vote on a decision. The decision of the committee will be communicated immediately.
- A student or any member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling toll-free (888) 370-7589 or by completing a complaint form, which can be obtained on the bureau's internet web site at www.bppe.ca.gov.
- As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are also encouraged to review the School



Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement.

 Any questions a student may have regarding this catalog that may not have been answered by the institution satisfactorily may be directed to the Bureau listed below:

Unresolved issues/complaints may be directed to:

Department of Consumer Affairs Bureau for Private Postsecondary Education

Physical Address: 2535 Capitol Oaks drive, Suite 400

Sacramento, CA 95833

Mailing Address P.O. Box 980818

W Sacramento, CA 95798-0818

Toll free Number: (888) 370-7589

Telephone Number: (916) 431-6959

Fax Number: (916) 263-1897

You may also visit the Bureau's website at www.bppe.ca.gov

Student Complaint / Grievance Procedure - ACCSC

Schools accredited by the Accrediting Commission of Career Schools and Colleges must have a procedure and operational plan for handling student complaints. If a student does not feel that the school has adequately addressed a complaint or concern, the student may consider contacting the Accrediting Commission.

All complaints reviewed by the Commission must be in written form and should grant permission for the Commission to forward a copy of the complaint to the school for a response. This can be accomplished by filing the ACCSC Complaint Form. The complainant(s) will be kept informed as to the status of the complaint as well as the final resolution by the Commission. Please direct all inquiries to:

Accrediting Commission of Career Schools and Colleges 2101 Wilson Boulevard, Suite 302 Arlington, VA 22201 (703) 247-4212 www.accsc.org



A copy of the ACCSC Complaint Form is available at the school and may be obtained by contacting Campus Director or online at www.accsc.org.

Student Services for the Machinist Training Program

The school does not provide housing, transportation, or child-care for students; however, a current listing of available rental units, local public transportation and carpooling information and child care information is available by contacting a Student Service Representative.

Student Services tracks attendance and grades and assists in securing bus passes for students. Student Services also has comprehensive reference books to assist students in looking for doctors, housing, food banks, and a myriad of other services.

The school provides academic advising to all students to ensure satisfactory progress through the program. Special attention is given to those students who need additional assistance. Academic tutoring is available to students who need further assistance in math and machining skills.

Student Records for the Machinist Training Program

The Registrar's office maintains academic records of all course work completed at the school. Records are maintained on campus for five years. Official Transcripts are released only after receipt of a signed, written request from the students.

Privacy Act for Students

The Family Educational Rights and Privacy Act (FERPA) of 1974 entitles all students to review their records, including grades, attendance and advising reports. The school must permit a student to examine such records within 45 days after the school receives a written request from the student.

A student may request that the school amend his or her education records on the grounds that they are inaccurate, misleading or in violation of the student's rights or privacy. In the event the school refuses to so amend the records, the student may, after complying with the Student Complaint Procedure, request a hearing. If the outcome of a hearing is unsatisfactory to the student, the student may submit an explanatory statement for inclusion in his or her education record.

A student has the right to file a complaint with Family Policy Compliance, U.S. Department of Education, Washington D.C. 20202-4605, concerning the school's alleged failure to comply with the Act. Student records are confidential and only such agencies or individuals authorized by law are allowed access without written permission of the student.



Disability Services

The NTMA Training Centers promotes and ensures equal access to school programs and services, and activities for qualified students with disabilities. Due to the nature of the program offered at the NTMA Training Centers, limitations are evaluated through the admission process. Students with disabilities are encouraged to contact the admissions department prior to enrollment. The admissions representative will review individual students with disabilities and ensure a strategic learning experience while maintaining the academic standards and mission of the Centers.

The NTMA Training Centers have handicapped accessible facilities.

Career Services for the Machinist Training Program

After successfully completing training, machinist training students qualify for the NTMA Training Centers' job placement services. Contacts are maintained with local companies in the machining industries and interviews are coordinated for machinist training students. During the Machinist Training program, a Career Services representative will assist students in resume writing, providing career development training and job search. Although the school provides placement assistance, the school cannot guarantee employment.

Library and Resource Center

The NTMA Training Centers has a Library and Resource Center available at both the Santa Fe Springs (main) and Ontario (satellite) campuses. The Library and Resource Center contains reference books and videos pertinent to student learning and the Manufacturing Industry. The Library and Resource Center is available at each campus with student access per the hours listed below.

Hours of operation:

8:00 a.m. – 10:30 p.m. Monday - Friday (Ontario)

7:30 a.m. – 10:30 p.m. Monday - Friday (Santa Fe Springs)

Annual Security Report

The school publishes the policies and procedures for reporting crimes, as well as the types of crimes that have been committed on or near the campus, in the NTMA Annual Security Report. This publication is distributed annually to all students and employees and may be requested at any time from a school administrator. Each October all employees and students receive an updated Campus Statistics Report and Campus Security Manual.



U.S. Constitution Day

Each September 17th, the school recognizes this day by supplying students with a special lecture on the U.S. Constitution.

School Performance Fact Sheet

All prospective students receive a School Performance Fact Sheet prior to enrolling.

Graduate retention percentage was determined by taking the amount of graduates divided by the amount of students available to graduate multiplied by 100 to find percentage. Students are determined unavailable to graduate when they are included in any of the following situations:

- Incarcerated
- Called to active duty in the Military
- Death occurring within the enrollment period

Graduate placement rate was determined by taking the amount of graduates employed divided by the amount of graduates available to work multiplied by 100 to find percentage. Students are determined unavailable to work when they are included in any of the following situations:

- Incarcerated
- Called to active duty in the Military
- Death occurring within the enrollment period
- Continuing education at an Accredited School
- Are international students that leave the United States or do not have a visa allowing employment in the United States

Graduate placement wage was determined by taking the amount of graduates employed and tallying their wage into the appropriate wage point. Yearly salaries are determined by taking the hourly amount multiplied by 40 hours a week (full time placement) by 52 weeks to equal a yearly amount.

Students may obtain a list of employment positions, determined to be within the field for which a student received education and training for the calculation of job placement rates, from either the Campus Director or the Career Services Department.

Students may obtain information used to substantiate the salary disclosure from either the Campus Director or the Career Services Department.

This fact sheet is filed with the Bureau for Private Postsecondary Education (BPPE). Regardless of any information you may need relating to completion rates, placement rates, or starting salaries, this fact sheet contains information as calculated pursuant to State Law.



Any questions a student may have regarding this fact sheet that have not been satisfactorily answered by the institution may be directed to the Bureau for Private Postsecondary Education Located at: 2535 Capital Oaks Drive, Suite 400 Sacramento, California, 95883 Their contact information is as follows: Mailing address: P.O. Box 980818, W. Sacramento, California, 95798-0818, Toll Free Number: 1(888) 370-7589, Telephone Number: (916) 431-6959, Fax Number: (916) 263-1897, web-site: www. bppe.ca.gov

Gainful Employment Disclosures

Visit www.trainingcenters.org to view G.E. Disclosures.

Scholarships

The NTMA scholarships were developed to help reduce financial burden and aid students in paying for their education. Our scholarships are funded by our industry, by those that want to strengthen manufacturing, and want to keep machining thriving. Eligibility requirements apply to each scholarship and we encourage those interested in applying, to visit the Student Services department or read our catalog for more information.

The Bert Richardson Youth Scholarship

The NTMA Training Centers in Santa Fe Springs and Ontario both award one Bert Richardson Youth Scholarship yearly to a recent high school graduate; this scholarship is for full tuition, \$11068 (books and materials are not included).

LA-NTMA Board Award

The NTMA Training Centers in Santa Fe Springs and Ontario both award one \$500 scholarship to one student and is presented at the school's graduation event. The NTMA Board will announce recipients at their annual Installation Dinner held in January.

The Kartsonis Scholarship

The NTMA Training Centers in Santa Fe Springs and Ontario both award one \$500 scholarship to one student and is presented at the school's graduation event. For all scholarships, applicants will be evaluated by their paperwork submission, then a final determination will be made by a Scholarship Committee. For more information, visit our Student Services department or read our catalog.



Student Financial Aid

The Financial Aid Office at NTMA is here to provide students with a better understanding of financial aid programs and provide support in promoting student success. The purpose of financial aid is to bridge the gap between educational cost and students resources; it is not intended to directly provide money for living expenses. The Financial Aid Office is open to students during the hours posted on campus. Students are encouraged to call or visit the office if they have any questions or need assistance regarding their financial aid.

Basic Student Eligibility Requirements for Federal Student Aid

- Be enrolled as a regular student in our certificate program
- · Have a high school diploma or equivalent
- Make satisfactory academic progress
- Meet enrollment status requirements
- Have resolved any drug conviction issue(s)
- Be a U.S. citizen or eligible non-citizen
- Have resolved any default on a FSA loan or overpayment
- Have a valid social security number
- Men aged 18 25 must register with the Selective Services System or meet exemption requirements
- Resolve any conflicting information

Application Process

Step 1 - Apply

- Submit a Free Application for Federal Aid (FAFSA) at www.fafsa.gov
- List Federal School Code 035904

Step 2 – Submit Forms

- Review Financial Aid checklist and provide completed documents
- Submit the required forms to the Financial Aid Office in person
- Resolve all issues in order to process award

Step 3 – Financial Aid Disbursements

- You must meet Satisfactory Academic Progress (SAP) to receive award
- The Financial Aid office will disburse award and apply into your student account



Verification

The Federal government requires a percentage of financial aid applicants to complete a process called "Verification." This is a process used by the U.S. Department of Education to check accuracy of information you reported on the FAFSA. If selected for verification the Financial Aid office will notify you immediately.

Items Subject to Verification (but not limited to)

- Adjusted Gross Family Income (AGI)
- U.S. taxes paid
- Untaxed income/benefits
- Child Support Paid
- Food Stamps-Supplemental Nutrition Assistance Program (SNAP)
- Financial support
- Family size
- Number of family members attending college
- High School Diploma or equivalent

Federal Student Aid Programs

Federal Pell Grants – Are awarded to eligible undergraduate students; those that haven't earned a bachelor's degree or graduate degree. The amount of money awarded is based on a student's Expected Family Contribution (EFC) to help the student with tuition costs. Disbursements of these funds will be applied to your student account if you are eligible.

William D. Ford (WDF) Federal Direct Subsidized and Unsubsidized Loans – have annual loan limits, based on the student's dependency status and grade level and must be repaid

- Subsidized Is a loan program available to undergraduate students that
 demonstrate financial need. The subsidized loan is to assist students with
 educational costs; the student is not required to make payments or pay the interest
 during at least half-time attendance; however, interest will begin to accrue on the
 first day after the last day of attendance.
- Unsubsidized Is a loan program available to students based on cost of attendance; who may not qualify for a subsidized WDF loan, Pell or for students who may qualify for only partial subsidized WDF loan. The terms and conditions are the same as the subsidized WDF loan, except that the borrower is responsible for the interest that



accrues while the student is in school and during the grace period for the duration of the loan.

Both entrance and exit counseling are requirements of the WDF Federal Direct Loan Program. Students must be enrolled in NTMA's certificate program to receive the loan and meet Satisfactory Academic Progress (SAP).

• **PLUS Loans for Parents** – Is a credit based loan program to assist parents of undergraduate dependent students with educational costs. Like the unsubsidized WDF loan, the interest in not subsidized by the government. Repayment begins 60 days after the loan is made.

NTMA will assist students in developing financial plans to pay for their education through a combination of student/family contributions, and financial aid, if applicable. All students must sign a Master Promissory Note (MPN) if you are a borrower of WDF Federal Direct Loan Program. Students that choose not to apply for federal aid or those that do not receive sufficient loan amounts to cover all educational costs must make payment arrangements with the Financial Aid Office. Students that are required to make monthly payments must sign a Retail Installment Contract (RIC), provided to you by the Financial Aid office. Payments are based upon any balance not paid by federal aid and required to be paid in full prior to graduating.

Disbursements

Students must be in current attendance (in class) to receive award disbursements; meet SAP then aid will be applied into their student accounts. You may access your loan information at www.nslds.ed.gov.

Repayments

NTMA reports the student's last date of attendance to the Department of Education (DOE) which will initiate student loan repayment. The six month grace period of the actual payments will begin on any outstanding student loan(s) from the student's last date of attendance.



Tuition and Fees

Financial aid applicants are responsible for the full amount of tuition and fees charged by NTMA.

Total Schedule of Charges for the 7-month Machinist Training Program

Registration Fees \$75.00
Tuition \$11,568.00
Books \$450.00
Tools and Supplies \$2,407.00
Total Tuition Charges \$14,500.00

Student Tuition Recovery Fund (STRF) Fee currently inactive due to State Regulation

California law requires that, upon enrollment, a fee be assessed to the cost of tuition (Educational Code Section 94343). These fees support the Student Tuition Recovery Fund (STRF), a special fund established by the California Legislature to reimburse students who might otherwise experience a financial loss as a result of school closure, the institution's breach or anticipatory breach of the agreement for the course of instruction, or a decline in the quality of the course of instruction with a 30-day period before the institution's closure. The fund protects only California students. Institutional participation is mandatory.

You must pay the state-imposed assessment for the Student Tuition Recover Fund (STRF) if all of the following applies to you:

- 1. You are a student in an educational program, who is a California resident, or are enrolled in a residency program, and prepay all or part of your tuition either by cash, guaranteed student loans, or personal loans, and
- 2. Your total charges are not paid by any third-party payer such as an employer, government program or other payer unless you have a separate agreement to repay the third party.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment if either of the following applies:

- 1. You are not a California resident, or are not enrolled in a residency program, or
- 2. Your total charges are paid by a third party, such as an employer, government program or other payer, and you have no separate agreement to repay the third party.

The State of California created the STRF program to relieve or mitigate economic losses suffered by students in educational programs who are California residents, or are enrolled in a residency program attending certain schools regulated by the Bureau for Private Postsecondary Education.



You may be eligible for STRF if you are a California resident or are enrolled in a residency program, prepaid tuition, paid the STRF assessment, and suffered an economic loss as a result of any of the following:

- 1. The school closed before the course of instruction was completed.
- 2. The school's failure to pay refunds or charges on behalf of a student to a third party for license fees or any other purpose, or to provide equipment or materials for which a charge was collected within 180 days before the closure of the school.
- 3. The school's failure to pay or reimburse loan proceeds under a federally guaranteed student loan program as required by law or to pay or reimburse proceeds received by the school prior to closure in excess of tuition and other costs.
- 4. There was a material failure to comply with the Act or this Division within 30-days before the school closed or, if the material failure began earlier than 30-days prior to closure, the period determined by the Bureau.
- 5. An inability after diligent efforts to prosecute, prove, and collect on a judgment against the institution for a violation of the Act.

However, no claim can be paid to any student without a social security number or a taxpayer identification number.

Buyer's Right to Cancel

You have the right to cancel this agreement, without obligation, and obtain a 100% of the amount paid for institutional charges, less specified expenses, if a notice of cancellation is made through attendance at the first class session, or the 7th day after the first class, whichever is later.

If written notice of cancellation is made by the evening of the 7th day after the first class, the School, without penalty or obligation, will refund 100 percent of the amount paid for the institutional charges, less a reasonable deposit or registration fee not to exceed two hundred fifty dollars (\$250). Cancellation shall occur when you give written notice of cancellation to the NTMA Training Centers, or the School Director at the address of the school shown on the front side of the Enrollment Agreement. You can do this by mail, hand delivery, or telegram. The written notice of cancellation need not take any particular form, and, however expressed, is effective if it indicates that you no longer wish to be bound by the enrollment agreement. If you cancel the enrollment agreement, the school will refund any money you paid within 30 days after your written notice of cancellation is received.

School Program Cancellation

If NTMA cancels or discontinues an educational program, the school will make a full refund of all charges. Refunds will be paid within 45 days.



Tuition Refund upon Cancellation Prior to the End of the Seventh Day after the 1st class for the Program

Cancellation occurs when the student communicates to the NTMA Training Centers that they wish to cancel the enrollment contract on the evening of the seventh day after the 1st class. The NTMA Training Centers shall refund 100% of the amount paid for instructional charges, less a registration fee not to exceed \$250.00. All books and materials must be returned in condition to resell.

Any notification of withdrawal or cancellation and any request for a refund are required to be made in writing. A form for withdrawal/cancellation may be requested from the business office and submitted in person or mailed to:

C/o Campus Director NTMA Training Center of So. CA 12131 Telegraph Road Santa Fe Springs, CA 90670

c/o Campus Director NTMA Training Center of So. CA 1717 S. Grove Ave., Ontario, CA 91761

It is important that you keep copies of the enrollment agreement, financial aid papers, receipts or any other information that documents your payments to the school.

Withdrawal from the Program

You have the right to withdraw from a course of instruction at any time. If you withdraw from the course of instruction after the period allowed for cancellation of the agreement, which is made through attendance at the first class session or the seventh day after the 1st class session. All monies paid by an applicant will be refunded if the student is either denied admission or cancels their enrollment agreement. The school will remit a refund less a registration fee, not to exceed \$250.00 within 30 days following your withdrawal.

Federal Refund Policy for the Return of Title IV Funds

Federal aid recipients who withdraw or are dropped from by the school are subject to new regulations regarding the Return of Title IV funds. Students who withdraw or are dropped from NTMA prior to completing more than 60% of the payment period are subject to these rules. Based on the date of the complete withdrawal or drop, the Financial Aid Office will determine the amount, if any, of "unearned" federal financial aid received by the student. The calculation will begin by determining the percentage of the payment period completed by the student as follows:

Number of days completed

Total number of days in the payment period



The result will equal the percentage of the payment period completed. The amount of federal financial aid that was paid or could have been paid to the student will be based on this percentage. If the student received more financial aid than the amount earned, the student will be billed for the overpayment. Financial aid recipients should be cautioned to repay any "unearned" financial aid as soon as possible to regain eligibility for financial aid. Title IV funds are awarded to a student under the assumption that the student will attend school for the entire period for which the aid is awarded.

Any aid recipient who needs to withdraw should contact Student Services and the Financial Aid Office to discuss alternatives before making a final decision.

Order of Return of Title IV Funds

- Unsubsidized Direct loans
- Subsidized Direct loans
- Direct PLUS loans
- Federal Pell Grants

A school must return unearned funds for which it is responsible as soon as possible, but no later than 45 days from the determination of a student's withdrawal or drop.

Third Party Tuition Payments

Tuition and fees paid by any third party on behalf of a student will be credited or refunded any monies due back to the same third party.

Appeal Process and Reinstatement of Financial Aid Eligibility

Students who are ineligible for financial aid or who are terminated; may appeal by submitting a written statement, with appropriate documentation, to the financial aid office. If appeals are granted and approved by the campus director, students are placed on probation.

Future eligibility for financial aid and the length of the probation period will depend on students' progress during probation.

Appeal Process and Reinstatement of Financial Aid Eligibility

Students who are ineligible for financial aid or who are terminated may appeal by submitting a written statement, with appropriate documentation, to the financial aid office. If appeals are granted and approved by the Campus Director, students are placed on probation.

Future eligibility for financial aid and the length of the probation period will depend on students' progress during probation.



Funding For a Re-Entry Student

Re-Entry calculations are determined by the date of return: over 180 days, less than 180 days or one year.

- Within 180 days Student remains in the same payment period and eligible to receive aid of which they were to receive prior to their withdrawal, including any funds returned to DOE. Student will sign a new enrollment agreement.
- After 180 days Student is eligible for new funding and is required to sign a new enrollment agreement which will reflect new payment period dates.
- One year Student is considered a new enrollment and eligible for new funding

If you cannot find the information you are looking for, please contact the Financial Aid Office at:

NTMA Training Centers of Southern California at either location:

12131 Telegraph Road Santa Fe Springs, CA 90670-3722 Tel (562) 321-3722 1717 S. Grove Avenue Ontario, CA 91761-4530 Tel (909) 947-9363

The Office of the Ombudsman (For Student Loan Resolution)

If you're in a dispute about your federal student loan, contact the Federal Student Aid Ombudsman Group as a last resort. The Ombudsman Group is dedicated to helping resolve disputes related to Direct Loans, Federal Family Education Loan (FFEL) Program loans, Guaranteed Student Loans, and Perkins Loans.

The Federal Student Aid Office of the Ombudsman incorporates generally accepted ombudsman values and ethics into every aspect of its problem resolution program:

Ombudsman Values and Principles

Neutrality: A critical strength for ombudsmen resides in the value of neutrality and impartiality. Ombudsmen advocate for fair process, without taking sides. This focuses the ombudsman's review not on "who is right," but rather, on "what is the right thing to do" both for individuals and the organization. Ombudsmen cannot force solutions or change the law.

Independence: Independence enables neutrality. The Office of the Ombudsman is functionally and organizationally distinct from business lines, reporting directly to top management. Through independence, conflicts of interest are avoided and student loan systemic issues can be reported directly to top management.

Informality: Ombudsmen review inquiries and issues informally. They do not conduct formal investigations, nor do they have decision-making power. Federal student aid ombudsmen function as informal fact-finders when assisting individuals to resolve



issues, and when determining if student aid processes and procedures have been followed as intended.

When process or procedural problems are identified through informal fact-finding, the ombudsman documents the problems, informs the business process owner and recommends improvements, as appropriate. Benefits are that multiple trends and systemic issues can be reported rapidly, and informal ombudsman reviews are quicker and cost less than formal processes.

Confidentiality: This value is most apparent with workplace ombudsmen (ombudsmen who work with employee complaints), but all ombudsmen offer confidentiality as long as there are no indications that:

- 1. The law has been or will be broken; or
- 2. There is a threat of imminent harm to people or property.

Benefit is derived when customers who would not necessarily come forward are enabled to speak candidly when they know that confidentiality is assured.

Professionalism: Ombudsmen uphold both the principles and the outward appearances of professionalism. This includes adherence to the strictest federal ethics, as well as principles of corporate ethics and responsibility.

For more information on basic ombudsman principles, refer to the American Bar Association standards for ombudsmen at: www.americanbar.org

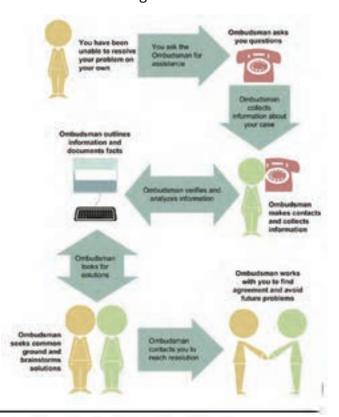
Contact the Ombudsman's Office

Here is the contact information for the FSA Ombudsman of the Department of Education. You may also want to read About the Ombudsman.

Postal mail U.S. Department of Education FSA Ombudsman 830 First Street, NE, Fourth Floor Washington, DC 20202-5144

Phone number (877) 557-2575

Fax number (202) 275-0549





Student Questions Regarding this Catalog

Any questions a student may have regarding this catalog that have not been satisfactorily answered by the institution maybe directed to the Bureau for Private Postsecondary Education at 2535 Capitol Oaks Drive Suite 400 Sacramento, CA 95833. www.bppe.ca.gov Toll-Free telephone number (888) 370-7589 or by fax (916) 263-1897

As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are also encouraged to review the School Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement. Review of the Gainful Employment Disclosures can be found on our website www. trainingcenters.org

Machinist Training (905 hour) Program Scope and Objectives

This is an intense program for individuals wanting to learn the basics of machining. Trainees learn the setup and operation of conventional machining equipment such as mills, lathes, grinders, drill presses and saws. Instruction is also provided in safety, quality control and inspection procedures, shop theory, precision measuring instruments, mathematics, blueprint reading and basic CNC operation. Instruction time is divided between classroom, computer lab, and shop, providing an unusual blend of practical theory and hands-on experience. The Machinist Trainee may find entry-level employment as an operator of a lathe, mill, grinder, drill press, etc in the machining and tooling field.

Program Length

Classes are five days a week, 25 hours per week, for 30 weeks. This program is a 725-hour classroom program with 180 clock hours of additional outside work. Total instructional time is 905-hours, 51.5 quarter credit hours.

Instructional hours for Modules 1-5 total 145 clock hours per module; 36 clock hours for additional outside work per module; and 51.5 total credits for the program.

Maximum Number of Students

The maximum number of students in a classroom lecture setting of instruction is 30 students, the computer lab is a maximum of 20 students.

Safety First

Safety and accident prevention procedures are mandated in all NTMA Training Centers classes. The Federal Occupational Safety and Health Act (OSHA), state safety requirements, insurance safety requirements, and years of experience in the machining, tooling and manufacturing industry form the basis for these guidelines.



Module I: Introduction to Machine Technology I

Students will be able to demonstrate a level of competency in basic mathematics, blueprint reading, and shop theory. Students will perform addition, subtraction, multiplication, and division of fractions and mixed numbers. Upon completion, students will demonstrate understanding of orthographic projections with standard and metric blueprints, precision measuring tools, and rounding off of decimal equivalents of combined operations. Shop Theory is demonstrated through shop safety and the use of basic hand tools, drilling machines, and saws.

Module II: Conventional Mills I & Lathe I

Students will be able to demonstrate a level of competency in basic algebraic expressions, operations, proportions, ratios, cutting speeds and feeds. Blueprint reading is demonstrated through the identification of various dimensional methods, first and third angle projections, and identifying various views in a multi-view drawing. Upon completion of this module, the students will be able to demonstrate a level of competency in fasteners, cutting fluids, lathe safety, lathe operation and setup, mill safety, mill operation and setup.

Module III: Conventional Mills II, Lathe II, & Surface Grinders

Students will be able to demonstrate a level of competency in basic mathematic analysis of circles, tangents circles, angles and sides of right triangles through trigonometric functions. Application of this understanding is demonstrated by reading various multiview drawings of threaded parts, reference dimensions, finish symbols, processing secondary operations of various materials and heat treat. Upon completion of this module, students will be able to demonstrate a level of competency in cutting threads, precision grinding wheel composition and application, and advanced conventional mill and lathe operation.

Module IV: CNC Mills & CNC Lathes

Students demonstrate a level of competency of mathematics in practical machine application. As an introductory course to Computer Numerical Control (CNC), students will develop spatial recognition using the Cartesian coordinate system to demonstrate setup and operates a CNC Machine. Complex and practical machine applications will utilize absolute and incremental programming positioning. Repetitive features and detailed drawings are reviewed for advanced blueprint reading techniques in thread identification, inclined and oblique planes, auxiliary views, and the interpretation of blueprint revisions. Upon completion of this module, students will be able to demonstrate the use of jigs and fixtures, quality control, CNC milling programming, setup, and operation. Nontraditional machining techniques and occupations will be discussed in CNC operations.



Module V: CNC Mills II, CNC Lathes II, EDM & Robotics

Students demonstrate a level of competency of mathematics in advanced blueprint reading of analytical geometry. Basic understanding of Geometric Dimensioning and Tolerancing (GD&T) is applied by identifying datum's, material conditions, form tolerances, locational tolerances, and run out tolerances in part setup and operation of a CNC machine. Upon completion of this module, the students will be able to demonstrate a level of competency in CNC Milling and Lathe programming, setup, and operation for the first article inspection. CNC Wire Electrical Discharge Machining (Wire EDM) and portable coordinate measuring machine (CMM) devices.

Schedule

See Schedule of Classes or call your nearest Training Centers facility for details. The Machinist Training program taught at the NTMA Training Centers is the key to the knowledge required to succeed as a machinist, including:

Mathematics:

- a. Basic mathematics featuring the use of whole and fractional numbers.
- b. Decimal equivalents for shop fractions.
- c. Decimal numbers and use of calculators.
- d. Metric measurements and conversion of metric to standard and standard to metric.
- e. Basic algebra as applied to formula and arranging formula for use in calculating shop measurements. The understanding of Algebra is the first key to learning and using shop mathematics.
- f. Plane geometry including the Pythagorean Theorem. Geometry is the second key to success in machinist training. Geometry is the most important of the math skills and is essential for reading and understanding shop drawings and blueprints.
- g. Trigonometry is the final key to success in being successful in the machine tool industry. You will learn how to calculate angles, find the length of triangle sides and do mathematics required to operate CNC machines.



Blueprint Reading (The language of the machine shops and manufacturing):

- a. Basic types of blueprint lines and their applications
- b. Setup and arrangement of the drawing views.
- c. Finding missing views and lines.
- d. Geometric Dimensioning and Tolerancing for interpretation of drawing dimensions.
- e. Reading part and assembly drawings to be able to find dimensions required to machine details and parts.

Shop Theory:

- a. Safety First rules and requirements are stressed from the first day of class. You are taught method of handling sharp tools, lifting material, working on drill presses, operating lathes and milling machines.
- b. Machine operation theory, which will include spindle speeds and machine feeds for various materials.
- c. Threading and the thread forms used in the manufacturing industries.
- d. Tooling and Fixturing used in the machine shop.
- e. Materials used in manufacturing and the machining characteristics of the materials.

Computer Numerical Control:

- a. Basic codes and commands for operation of the CNC equipment.
- b. Programming examples and lessons on how to program and understand the programming commands.
- c. Machine startup and setup procedures, both Milling machines and lathes.
- d. Setting tool length offsets.
- e. Setting part offsets.
- f. Basics of CAD-CAM programming.



Outside Class Hour Objectives

During the progression of this course, approximately 36-hours of outside class hours will be assigned for each of the modules specified for the mastery of the lesson in mathematics for machine technology, blueprint reading, shop theory, and project creation. This includes outside work in technical mathematics, blueprint interpretation, and shop theory in the utilization of part creation and inspection techniques, and various reading assignments.

Instructors

Our team of instructors bring many years of industry experience, extensive knowledge from the trade and diversity into the classroom with their varied backgrounds. Their committed in teaching and helping students learn all facets of machining, from math, blueprint reading, shop theory, to cutting and creating actual parts from metal blocks. The practical hands-on experience is designed to progress and challenge the student throughout their program. We train to build leaders, to keep manufacturing strong and provide the industry with skilled and proficient machinist.

Luis Carlos Andrade has been a Machine Shop Manager and Safety Manager for 11 years. He has attended Mt. San Antonio College with an emphasis in Manufacturing Technology. Currently, he instructs machinist training courses at the NTMA Training Centers, Ontario. Additionally, Carlos instructs as an aid at the community college level with an emphasis on CAD/CAM.

Grant Bickham is a second generation machinist following in his fathers footsteps. He moved from Great Britain in 1980 after his father took a job at Allied Mechanical. After graduating from high school he went to work at Merlin Engineering where his father was manager, from there moving on to Calcor Space Facility training as a Tool and Cutter Grinder. When the Aerospace industry started to decline he moved to Scripto Tokai Corporation making precision carbide tooling used in the manufacture of pen points and branched out into Sinker EDM work making carbide Dies for coldheaders. When the company started to downsize he went to work for Mag Instruments working in the Tool Room as a Tool Maker and eventually ended up setting up and programming Fadal CNC Mills. After 9 years at Mag he moved on to Swiss Screw Machine Shop making Precision Carbide Tooling. In 2011 he attended the NTMA Training Center to gain experience in CNC machines, and while attending he took a job at Allied Mechanical where his Father had started out working in the U.S., furthering his skills on the CNC's running a Horizontal Boring Mill. Eventually the opportunity to become an Instructor at NTMA teaching advanced conventional Machining in MOD 3 opened up and Grant took the opportunity as a way to give back to the industry that has given him a great career for the last 27 years.



Steve Bui A full time credentialed instructor, employed as a professional in machining and manufacturing industries since 1976. He then began teaching Machine Technology courses in machining, set-up, operation and programming since 1985. He attended Fullerton College, Cal. State University Long Beach and took courses in UCLA Extension program.

Ebenezer Castellanos Completed his studies (1980-1984) at the Higher Institute of Education for Vocational and Professional Training in Havana, Cuba; earning the Diploma of Licentiate in Education with Major in Machine Construction in July, 1984. These studies are considered equivalent in level and purpose to the Bachelor of Science in Vocational and Technical Education, awarded by regional accredited colleges and universities in the United States. Since September 1984 to July 1996 Ebenezer has been working as Professor of Technology and Machinery Tools and turnery instructor and machinist instructor. Ben has been working in the machinery industry since 1996. He also worked as a Part-time instructor at Cerritos College in the CNC Machine Tool Technology since Fall of 2001. Ben possesses a Vocational Education Teaching Credential.

Tin Chit Earned his Bachelor of Science Degree in Mathematics from Yangon University of Myanmar. Tin has over 12 years' experience teaching high school math at a private school in Myanmar. He attended Los Angeles Trade-Technical College, received certificate in CNC Programming and Gibbs Cam programming. He completed advanced Mastercam (CAD-CAM) programming courses with perfect attendance from the NTMA Training Centers. He has experience in operating, setting up, programming, and editing CNC mills, lathes and conventional machines.

Eric Dahl has over 35 years of experience in the machining industry with an emphasis in aerospace, military, automotive, electronics, and agriculture. He received a MasterCam Certificate from Riverside Community College, a CADD Diploma and AutoCADD Certificate from MTI College, and a Rands Systems/LETC CNC Programming Diploma from Fullerton Community College. Mr. Dahl has also owned his own machining business, and has very broad experience in the field with different machines, techniques, and products.

Bernell Dunn A full time clear credentialed instructor with 27 years teaching experience, nine years professional experience as a machinist and tool and die maker. Bernell graduated from Belize Technical College majoring in Mechanical and Electrical Engineering. He also earned an Associate of Arts Degree from National Technical Schools in Machine Operations and a full time designated teaching credential from Cal State University, Long Beach.



Michael P. Flynn, Day Manager has over 25 years' experience in manufacturing and manufacturing management, including being a co-owner of an OEM specializing in automotive service equipment. He is a graduate of California State Polytechnic University with a B.S. in General Management and Human Resources. Michael is also certified in basic and advanced Mastercam, Solidworks and AutoCAD from Mt. San Antonio College and is certified in CNC machining from the NTMA Ontario campus. He has most recently worked as a CNC lathe set-up/operator at Baumann Engineering, a major supplier of components to the aerospace industry.

Duane Fuller has worked as a machinist, working with CNC as well as manual lathes for over 25 years. Duane has always quickly become the "go to" guy in just about every shop he has been with. Duane decided to take that experience and bring it to the classroom where he enjoys sharing his vast knowledge with others.

Victor M. Gomez Victor started his career with Disney in 1992 as a CNC Programmer/ Operator after receiving a certificate in CNC programming from NTMA. Victor resigned in 1998 to pursue his personal goals where he worked as a consultant with various medical device companies to prototype their new products. Since his return to Disney in 2002, Victor has assumed various roles. He was a planner/scheduler for quality assurance where he worked with Quality Assurance and Engineering to rework MRB disposition components. He then assumed the role as maintenance services manager in charge of all outside process as well as a crane and forklift crew. Victor is currently an Engineering services manager of a response team in Disney's California adventure where he is responsible for the safety and reliability of all attractions on a daily basis.

Amer Khafagi Since 1990 to 1999, Amer worked as a Tool and Die Maker working with progressive headers, 4-years prototyping parts for Bristol Industries, CNC Setup Machinist and Programmer, and managed the CNC Department for LE Tipfer Co. for 6 years. Amer has an AS Degree in Machine Technology & CNC from Los Angeles Trade Technical College. He has full time teaching credential from California State Long Beach cleared until 2011, and a certificate of Authorization for Service (in Teaching) from the county of Los Angeles. In addition, Amer has over 25 certificates in the machining field from NTMA, Haas Automation, Machinery Sales, FADAL Engineering, Quality Plus Enterprises Technical Institute, and Society of Manufacturing Engineering's. Amer has been a teacher at NTMA since 1999 to present time and taught ETP classes for 4 years, Title IV for 2 years, as well as Basic CNC and Advanced CNC at NTMA of Santa Fe Springs, North Hollywood and Ontario. Amer has worked extensively on course curriculum development and lesson planning for Conventional as well as CNC Machining.



Rick Koukal Rick has been involved in the manufacturing industry since 1978. He has worked 19 years in a family owned job shop, producing manufacturing equipment in dividing heads used to test angular accuracy in the electronics, military, and aerospace industries. He has also spent 10 years working for a gear manufacturer operating large lathes, milling, and hobbing machines. Rick also spent 10 years cranking handles on manual mills and lathes while moving up to CNC programming and operations, focusing on programming and operating: Mazak Milling Center's; using M2, M+, Mazatrol, and M-32 controls. Currently, Rick is teaching Module 1 at the NTMA Training Center, Ontario.

Richard Loehnig has been employed by the NTMA Training Centers since 2012. Richard holds an A.A. in Psychology from the University of Phoenix, and a B.S. in Manufacturing Design Engineering from National University, as well as holding an NASASPS Certification as a Higher Education Professional with a concentration in Teaching. Richard began his career at NTMA as a Math and Blueprint Tutor, then became the NRL (National Robotics League) Coordinator for the NTMA Robotics League in March 2013. Richard has served on the Los Angeles County School District's Manufacturing Advisory Board, and has been a member of the NRL Rules Committee (2013-present). Currently, Richard is a Module 1 Instructor as well as the NRL Coordinator and 3D printing specialist for the Training Centers.

Jean-Luc Lopez is a third generation machinist, following his father and grandfathers footsteps. He started in machining at the young age of 12 in the family machine shop, BBL Space Projects. He branched out and started working at Fairchild Fasteners on their very first CNC lathe the year of 1983. Jean-Luc has worked for medium to large aerospace companies taking his experience to the level of manufacturing manager. Jean-Luc has over 30 years' experience at all levels of the manufacturing industry. He brings a background of CNC mill and lathes, conventional trained, Apprenticeship trained, CNC certified, programming certified, first responder certified. He has experience on a wide range of equipment, has been trained in the 5s/6s, Kanban, JIT, Cell manufacturing etc... Jean-Luc has attended El Camino, Fullerton and Cypress College. He continues his education in the area of Business Admiration and furthering his Teaching credentials.

Paul Lovelace Paul started in the manufacturing industry in 1983 and spent the first 19 years working in several positions for a major machine tool distributor. Fifteen of those years were as an Applications Engineer, teaching machine programming and operations, troubleshooting user problems and teaching CAM programming. For 5 years, Paul taught part time at Rio Hondo College teaching Shop Math, Basic CNC Programming and Advanced CNC Programming. Since 2003, Paul has been an Independent Applications Engineer and is also a partner in a company providing phone based technical support for manufacturing companies across the country. Paul currently instructs at NTMA Training Center, Ontario.



lan McKenzie Ian began his career in 1959 in England. He completed a 5-year apprenticeship and attended Liverpool College of Advanced Technology where he earned his City & Guilds in Machine Shop Engineering. He spent the next 10 years as a journeyman toolmaker, in the manufacture of everything from washing machines to jet engines, and heavy engineering of turbines for hydro-electricity. After a plant closure he spent the next 12 years in the auto industry as a tool and die maker for AC Delco (GM, UK). In 1981, he emigrated to California where he worked in aerospace and on defense contracts. From 1991-2009 Ian was involved in the design and development of tooling for Magnetic Navigation Systems in the medical industry and jigs and fixtures for magnet assemblies. While substitute teaching at the NTMA for the last 12 years, he has attained his Full California Vocational Adult Education Credential (designated subjects) from The University of San Diego. Ian "Mr. Mac" lends

Eduardo McLean (Night Manager) Eduardo completed a Six-year Machinist Apprenticeship program in 1973 and has an AA degree in General Education, a Tool Design Certificate, a BS in Applied Studies Management, a BA as a Spanish Teacher, a Manufacturing Engineer Certificate, a BPPVE Instructors Certification by the state of California and an Instructors credential by the state of California. He has worked as a machinist in the Machine Tool Technology Industry since 1973. Ed has worked in all areas of the Machining Industry (Manufacturing Engineer, Production, prototype, tooling, molds & dies, programming, R&D, Technical Translation & supervision). In addition, has been with the NTMA Training Centers Norwalk Campus since January 2001.

his 54 years of machine shop experience and wisdom to Modules 1, 2, and 3.

Manny Monarrez A credentialed instructor with over 28 years' experience in the machining industry. He attended Mt. San Antonio College, Orange Coast College and Rancho Santiago College.

Ricardo Montoya Ricardo has over ten years of experience working in all areas of the shop. He is experienced on set-up, programming, and editing on mills, lathes and CNC machines. He has taken CNC classes, Basic Mastercam, and Advanced Mastercam at NTMA and has experience with inspection, CMM and blueprint reading. He has been teaching at NTMA since 2006.

Michael Nguyen is a full-time credential instructor. He has experience in operation, setting up, programming and editing CNC mills, lathes, boring machines and conventional machines. Michael earned a BS in Business Administration from Van Khoa University. He completed advanced machining courses with perfect attendance from the NTMA Training Centers of Southern California, Inland Empire location and Wilshire Computer College. Currently, Michael instructs module training courses at NTMA Training Center, Ontario.



Kurt Preisendanz, (Director of Training) Kurt started his 33 years as a general machinist in 1974. His apprenticeship started in his father's machine shop in Pasadena, California. In his 4 years of apprenticeship, Kurt was involved with machining and processing for the aerospace industry. For the next 5 years (1978-1983), Kurt worked in various job shops as a general machinist in the San Fernando and Santa Clarita Valley's where his duties include conventional machining, CNC machining and programming, fixture design and building, and troubleshooting. From 1983-1990, Kurt became a contract machinist for a company directly involved with Space Shuttle Main Engines (Rockwell International, Rocketdyne). This contract position eventually led to the start of Kurt's own Machining and Design Company called Kersey Manufacturing. After 4 years, Kurt was asked to become a General Manager for a major aerospace and defense contractor, which he accepted. From that point on, Kurt has been involved as a Senior Machinist/GM in the manufacturing industry. Kurt currently instructs Module 2 at the NTMA Training Center, Ontario.

jR Ragaisis, (Executive Director of Education and Training) jR completed a 5-year state apprenticeship program as a Journeyman Tool & Die Maker in 1989 from Wisconsin. He graduated with an Associate Degree in Manufacturing Productivity and has completed the Kennametal Certified Metal-cutting Professional Program. Desires for growth moved him to Scottsdale, Arizona, as an EDM Programmer/Operator, where he advanced within the engineering department by designing and programming wire & sinker EDM's, Machining centers, and Turning centers. Other experiences consist of: adjunct and fulltime college faculty, and a consultant to industry in CAD/CAM/CNC and Additive Machining Technology. Additionally, he has been on the Education Board for the NTMA and a Board of Trustee for the local Arizona chapter of the NTMA. Lastly, JR has graduated with a BA in Business Administration & Leadership and a MBA in Business Administration.

Vincent "Dee" Ridenour Dee was first introduced to the metalworking world in the high school where he majored in industrial arts. He took his desire to Bowling Green State University in Ohio where he majored in Product Design. Dee reentered the machining community through the California retraining program later receiving his training through the NTMA taking a position as a Tool & Die Maker. Returning to the NTMA as an apprentice and earning his journeyman certificate, Dee returned to the NTMA for advanced CNC and CAD (Mastercam) training. He then took a position as a shop manager and programmer in the motorcycle industry for the next 4 years. Dee is currently teaching module 3 at the NTMA Training Center, Ontario facility and owns a contractual programming business.

Cesar A. Rivera Experienced in aeronautic engineering through the community college of the air force. He is an accomplished machinist in conventional machines. Experienced in CNC programming, set-up of CNC mill, lathe, and punch die. He has knowledge in abrasive machining technologies and currently works as a manufacturing engineer, CNC



programmer, and machinist. He also has knowledge in CAD/CAM software to program complex geometry of aircraft parts.

Phil Shoup, (Night Supervisor), has been in the machinist industry for 42 years. He has done portable feed machining and conventional shop machining. Phil served as an apprentice at the Minder Chain and Gear Co. Phil has also worked at Allis Chalmers and Smith International. At the present time, Phil is a substitute at the Ontario Campus of NTMA.

Dan Smith has been in manufacturing since 1984 first working as a center less grinder and as a thread roller working for Duestch Metal Components. He moved on to work on the tooling and fastener side of center less grinding. In 1995 Mr. Smith attended NTMA Norwalk as he started to work in a shop running a wire EDM machine. He continued running EDM and various other machine tools making molds, tool and die, R&D, aerospace and medical devices. He joined NTMA as an instructor in 2009 where he now teaches and runs a tool and die company in Santa Fe Springs. With close to 30 years in manufacturing Mr. Smith has hands on experience with all aspects of our curriculum and is always a student favorite due to his generous and kind personality.

Joseph Taglialavore Completed a five-year Machinist Apprenticeship program in 1973 has an Associate of Arts degree in Machine Tool Technology, a BPPVE Instructors Certificate by the State of California, a full-time Instructor's credential by the State of California and Supervision and Coordination credential by the State of California. He has worked as a machinist in the Machine Tool Technology Industry since 1968. He has worked in all areas of the Machining Industry (Production, prototype, tooling, molds & dies, programming, R&D, & supervision). In addition, has been with the NTMA Training Centers Norwalk Campus since January 1995 working as an Instructor, Sr. Instructor & Lead Instructor.

Steven Yackel A full time credentialed Instructor with 11 years teaching experience. He has nine years Professional experience as a machinist in many different capacities; Tool and Die Machinist, maintenance machinist, Aerospace machinist and managed a shop for an Injection molding company. Went to Long Beach City College, received certificates in CNC Programming, Master Cam, EZ Cam and finished general education class for AS degree. Steve has over 3400 hours of Certifications in manual lathes, mills, power saws, bench work, drill press and safety.



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