



Registered as part of the National Apprenticeship Program in accordance with the basic Standards of Apprenticeship established by the Secretary of Labor

By:

Ronald M. Johnson USDOL Office of Apprenticeship S. C. State Director

Provisional Registration Date:

Program Number:

Organization ID:

Garfield G. Garner USDOL Office of Apprenticeship Region Three Director

South Carolina Apprenticeship Standards

Sponsored By:

United Tool and Mold

2809 Greenville Highway Easley, SC 29657

Occupation(s)	O*Net Code	DOT Code	RAPIDS Code
CNC Operator	51.4011.01	609.262-010	0845
Repairman	51.4111.00	601.260-010	0586







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Key Components and Terms

Apprentice - A person meeting the qualifications, who has entered into a written Apprenticeship Agreement providing for learning and acquiring the skills required to become the named occupation as described under the provisions of these Standards.

Apprenticeship Agreement

Each Apprentice and authorized official of the employer/sponsor must sign an Apprenticeship Agreement that is provided by the Registration Agency. The purpose of the Agreement is to outline the terms and conditions of the Apprenticeship Program and the responsibilities of all parties to the Agreement. Each agreement must be registered with the Registration Agency. This is a necessary step for a company to receive the state tax credit and for an apprentice to receive a Certificate of Completion. A sample Agreement is attached.

Apprenticeship CarolinaTM - A division of the South Carolina Technical College system charged with providing technical assistance to employers wanting to pursue Registered Apprenticeship as a training model. www.ApprenticeshipCarolina.com.

Apprenticeship Committee – A sponsor may establish a committee to administer and enforce these apprenticeship standards.

Apprentice Electronic Registration (AER) - An electronic tool, provided by the US Department of Labor, which allows for instantaneous transmission of apprentice data to the Registration Agency. It provides the Program Sponsor with electronic access for the administration, management, and access to program data.

Apprentice to Professional Ratio

A ratio is established to ensure that adequate skilled personnel are available to assist in the training of Apprentices, and adequate supervision is provided on the job.

Apprentice Wage Progression

A progressive schedule of wages is paid to Apprentices consistent with the level of skill acquired and satisfactory completion of the work experience or competencies and job-related education requirements.

Amendments or Modifications

Programs can be modified as needed. The Program Sponsor or Apprenticeship Committee will continually monitor the Apprenticeship Program for quality, efficiency, and compliance with the Standards of Apprenticeship, and the Program's effectiveness in meeting industry needs.

Cancellation - The termination of the Apprenticeship Agreement and written notification of the action to the Registration Agency.

CFR - Code of Federal Regulations

Complaint Procedure

The Program Sponsor's will develop a procedure for addressing complaints concerning the operation and administration of the program and identify a contact person to receive any complaints. The procedure notifies Apprentices and applicants of their rights to pursue closure of an issue through an appropriate party.

Credit for Prior Experience

The Program Sponsor may recognize the previous related occupational experience, education, training and skills that applicants may possess, and to grant such applicants credit toward completion.

Equal Opportunity Pledge

A statement of commitment that the program will be conducted in conformity with all applicable Federal, State and local EEO/Affirmative Action laws, regulations, rules and adopted plans.

Gender Clause - Any reference to either the male or female gender in these Standards is intended to include both genders and



[29 CFR 29.5(b)(7)]

[29 CFR 29.5(b)(5)]

[29 CFR 29.5(b)(17)]

[29 CFR 29.5(b)(21)]

[29 CFR 29.5(b)(11)]





[29 CFR 29.5(b)(12)]

[29 CFR 29.5(b) (21)]





is not to be considered as a limitation on either sex. The term journeyman (men) within these Standards shall be considered a performance level and not a gender term.

Interim Credential - A credential issued by the Registration Agency, upon request by the appropriate sponsor, as a certification of competency attainment by an Apprentice. Competency means the attainment of manual or technical skills and knowledge as specified by an occupational standard. Sponsors shall identify and define interim credentials, if used, in their program standards.

Job Corps Centers – Federally funded Job Corps Centers throughout the U.S. annually serve approximately 65,000 youth and young adults aged 16 - 24. Sponsors who wish to hire Job Corps graduates trained in any occupation covered in these standards, and who meets the minimum qualifications for apprenticeship, may do so via the Direct Entry provision described in the 29 CFR part 30.

Job Related Education (JRE)

The organized and systematic form of education designed to provide the Apprentices with knowledge of the theoretical subjects related to the occupation that cannot effectively be taught on the job, but that are essential for job performance. This instruction will include the necessary training to reinforce work experience learning outcomes.

Job Related Education (JRE) Provider – Examples of JRE providers include, but aren't limited to the technical colleges, employer/program sponsors, equipment vendors, etc...

Journeyworker/Fully Skilled Professional - An individual who has sufficient skills and knowledge of the occupation, either through formal apprenticeship training, a post secondary degree program or through practical on-the-job work experience, and is recognized by the Program Sponsor and Registration Agency as being fully qualified to perform the work of the profession.

Mentor - Person or persons designated by the Program Sponsor to guide the Apprentice through their job related education and on-the-job training.

Minimum Qualifications for Apprenticeship

For entry into this Apprenticeship Program, the Program Sponsor shall establish minimum qualifications for a reasonable expectation of success in the occupation. Qualifications must be clearly stated, directly related to job performance and may include qualifications related to minimum age, education, physical ability to perform essential functions of the occupation, etc.

On-the-Job Learning Log – A required tool to record an Apprentice's work experience on the job. Templates can be obtained through Apprenticeship Carolina.

On-the-Job Learning Outline

The Program Sponsor is required to include a detailed outline of the work experience competencies that each Apprentice will receive, with the approximate number of hours of training for each process in the outline unless the program is strictly competency-based. The Apprentice must successfully complete and demonstrate proficiency in these work processes before a completion certificate is granted.

O'NET Code - The Occupational Information Network codes and titles based on the new SOC (standard occupational classification) system mandated by the federal Office of Management and Budget for use in collecting statistical information on occupations. O'NET information can be readily linked to labor market information.

Probationary Period

[29 CFR 29.5(b)(8)] 29 CFR 29.7(h)(1) and (2)(i)(ii)]

The defined period of time during which either party to the Apprenticeship Agreement may terminate the Apprenticeship Agreement. The Probationary Period is intended to provide an opportunity for the Apprentice to ensure the type of work is to their liking, and for the Program Sponsor to determine whether the Apprentice has the aptitude for the work

Program Sponsor - United Tool and Mold - Easley, South Carolina

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[29 CFR 29.5(b)(10)]

[29 CFR 29.5(b)(2)]

[29 CFR 29.5(b)(4)]





Provisional Registration – Status of a new program for one year pending a program quality assessment.

Registration Agency - The U. S. Department of Labor, Office of Apprenticeship; 1835 Assembly Street Suite 838; Columbia, South Carolina, 29201

Safety and Health Training

The Program Sponsor assures that Apprentices will be instructed both on-the-job and in the job related education in safe and healthful work practices.

Standards of Apprenticeship - Shall mean this entire document, including the attached "Trade Schedule", "On the Job Learning and Job Related Education Outline," and other attachments hereto.

Term of Apprenticeship

The term of Apprenticeship for the occupation(s) covered by these Standards of Apprenticeship will be expressed in terms of hours, months or years of work experience or achieved competencies. In addition, the program identifies the number of hours of job-related education per year during the term of Apprenticeship.

Time-Based, Competency-Based, and Hybrid Programs – On–the-job work experience can be delivered and measured through a traditional time-based approach, a competency-based approach premised on the attainment of demonstrated, observable and measurable competencies, or through a "hybrid" approach which is a combination of time-based parameters and the meeting of articulated performance-based competencies.

Veterans Approving Agency – The authority for approving veterans to use their G.I. benefits in an approved apprenticeship program. The State Approving Agency for apprenticeship and OJT programs is the South Carolina Commission on Higher Education, 1333 Main Street, Suite 200, Columbia, SC 29201

YouthBuild USA –A youth and community development program that simultaneously addresses core issues facing low income communities: housing; education; employment; crime prevention; and leadership development. In YouthBuild programs low income young people (ages 16 - 24) work toward their GED or high school diploma, learn job skills and serve their communities by building affordable housing.

[29 CFR 29.5(b)(9)]

[29 CFR 29.5(b)(2)]





United Tool and Mold, Inc. Apprenticeship Program

Section 1 – Foreword

Experience has demonstrated that a practical and sound method of preparing workers for employment in skilled occupations is through planned apprenticeship – a training concept which provides for employment and training under actual job conditions supervised by skilled professionals and at wages commensurate with the Apprentice's skill. In addition, the Apprentice's knowledge and understanding of the occupation is enhanced through participation in approved courses of related and supplemental education.

United Tool and Mold, Inc. recognizes this need for continuous training to maintain the high level of skill and competence demanded by this industry. Further, recognizing that the responsibility for training rests with those in industry who are the benefactors of a skilled workforce, United Tool and Mold, Inc. has formulated and adopted these Apprenticeship Standards for the training of Apprentices in this profession.

Section 2 – Provisional Registration

New apprenticeship regulations promulgated by the Department of Labor's Office of Apprenticeship on December 29, 2008 require all new programs to receive provisional registration for one year prior to moving into active program status. The provisional registration requires that the Office conduct a program quality assessment prior to the program's one year anniversary in order to determine whether or not the program is following its registered training plan and operating in accordance with the federal apprenticeship regulations. Pending the results of the quality assessment, the program will continue in provisional status, move to permanent active status, or be de-registered. Technical assistance will be available to assist the sponsor in improving the quality of their training program.

Section 3 – Purpose

- A. To encourage careful selection of persons entering the profession with due regard to aptitude and attitudes.
- B. To provide an approved plan of training intended to equip such persons for profitable employment demands.
- C. To assure that United Tool and Mold, Inc. may obtain the services of highly skilled professionals.
- D. To provide the public with the highest possible service in conformity with approved practices of safety and skilled professionalism.

Section 4 – Equal Employment Opportunity in Apprenticeship

1. **Pledge:** "The recruitment, selection, employment, and training of Apprentices during their apprenticeship, shall be without discrimination because of race, color, religion, national origin, or sex." United Tool and Mold, Inc. will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29, Code of Federal Regulations, Part 30, as amended. The Program Sponsor shall not discriminate against a qualified individual with a disability because of the disability of such individual. The Program Sponsor will provide reasonable accommodation to individuals as required by federal, state, or local disability law.

Applicants for apprentice positions shall be in accordance with competitive procedures of the sponsor of these apprenticeship standards.

- 2. **Maintenance of Records:** "Records relating to the recruitment, selection, employment and training, and any other information relevant to the operation of the program shall be maintained for five (5) years. The records shall permit identification of minority and female (minority and non-minority) participants. The records will be made available on request to the Office of Apprenticeship, U.S. Department of Labor, or other authorized representative."
- 3. **Recruitment and Selection of Apprentices:** If the approved program employs five or more apprentices, the Sponsor may be required to adopt a Recruitment Plan and a Selection Procedure for placing apprentices into its program if their current plan is inadequate under the provisions of Title 29, CFR part 30.

[29CFR29.3(g)(1)&(2)]

[29 CFR 29.5 (a)]

[29 CFR 29.5(b) (21)]





Section 5 – Duties and Responsibilities of the Apprentice

- 1. Upon reading these Standards and signing the apprenticeship agreement, each Apprentice shall be regarded as having voluntarily accepted all the responsibilities and obligations commonly recognized as a part of such apprenticeship, and such others as may be assigned to the Apprentice by the Committee and/or Program Sponsor as a means of facilitating the administration of the Apprenticeship Program.
- 2. Each Apprentice shall be responsible to fulfill the obligations of related education as set forth by the Program Sponsor and for maintaining an accurate record of all hours spent in training on-the-job.
- 3. Apprentices must develop safe working habits, and conduct one-self at all times in a creditable, ethical manner.

Section 6 – Duties and Responsibilities of the Program Sponsor

- 1. Have the necessary facilities to assure effective training in all aspects of the profession.
- 2. Assure apprentices are under the supervision of qualified professionals.
- 3. Exercise precaution for the health and safety of apprentices in the workplace at all times.
- 4. Provide a positive learning environment and encourage training at all levels.
- 5. Provide fair and equitable treatment for all apprentices.
- 6. Provide the foundation for the apprenticeship training and the continuum for passing the skills on to the future.
- 7. Notify the registration agency of any change in status of apprentices, including cancellation, suspension, and completions of apprenticeship.

Section 7 – Duties and Responsibilities of the Mentor/Journeyworker

- 1. Provide positive leadership and proper supervision.
- 2. Provide honest feedback to the apprentice in a way that will assist in their growth and development.
- 3. Demonstrate best practices in the classroom and on the job.
- 4. Allow the apprentice to practice new skills or experiment with theories or ideas learned in the related instruction courses.
- 5. Provide fair and equitable treatment to all apprentices and recognize and reward excellence.
- 6. Assist with paperwork required of the program (i.e., on-the-job training records, related instruction records, and other record keeping as may be required).

Section 8 – Apprenticeship Agreement

- 1. Each Apprentice shall be covered by a written Apprenticeship Agreement meeting the requirements of 29.7, signed by the Program Sponsor, and Apprentice. The agreement shall be forwarded to the Registration Agency for registration approval.
- 2. The Agreement shall contain a statement making the terms and conditions of these Standards a part of the Agreement, as if expressly written therein. A sample Apprenticeship Agreement is attached.
- 3. A copy of each Agreement shall be furnished to the Program Sponsor, Apprentice, Local Apprenticeship Committee (if applicable), and to the Registration Agency.

Section 9 – Transfer of an Apprentice

- 1. The transfer of an apprentice between apprenticeship programs or within an apprenticeship program must be based on an agreement between the apprentice and the affected program sponsors or apprenticeship committees, and must comply with the following requirements:
 - a. The transferring apprentice must be provided a transcript of job related education (JRE) and on-the-job learning by the program sponsor or committee.
 - b. The transfer must be in the same occupation.
 - c. A new apprenticeship agreement must be executed when the transfer occurs between program sponsors.

Section 10 - Credit for Prior Experience

- 1. Apprentices may be given credit for documented previous experience for the time they have served as such under a verbal or written agreement, whether the work experience was with the Program Sponsor or elsewhere.
- 2. The amount of credit will be determined for each work process in which the Apprentice has demonstrated skill and be based on the approximate number of training hours designated for those work processes.
- 3. Previous experience will be granted only after the probationary period, and the documentation has been verified and approved by the Apprenticeship Sponsor.

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[29 CFR 29.5(b)(11)]

[29 CFR 29.5(b)(13)]

[29 CFR 29.5(b)(12)]

Section 11 – Safety and Health Training

- All Apprentices shall receive continuous instruction in safe and healthful work practices both on-the-job and during 1. related instruction.
- 2. United Tool and Mold, Inc. shall instruct the Apprentice in safe and healthful work practices and shall ensure that the Apprentice is training in facilities and other environments that are in compliance with either the Occupational Safety and Health Standards promulgated by the Secretary of Labor under Public Law 91-596, dated December 29, 1970, and as amended by Public Law 104-320, dated October 19, 1996.

Section 12 – Periodic Evaluations

- Each Apprentice shall be responsible for maintaining a record of his or her work experience/training on the job and in 1. related instruction and for having this record verified by the Sponsor for inclusion in the Apprentice's record folder. This record will be included in each Apprentice's file maintained by the Program Sponsor.
- 2. Before each period of advancement, or at any other time when conditions warrant, the Sponsor shall examine the Apprentices to determine whether they have made satisfactory progress. If the Apprentices' related training or work progress is found unsatisfactory, they may be required to repeat a process or series of processes in which they are deficient, before advancing to the next step.
- Should it be found that the Apprentice does not have the ability or desire to continue the training to become a 3. professional, the Sponsor will, after the Apprentice has been given adequate assistance and opportunity for corrective action, terminate the Apprenticeship Agreement.
- Written records of progress evaluations and corrective and final actions shall be maintained. The Registration Agency 4. will be notified of all cancellations.

Section 13 – Maintenance of Records

- The Program Sponsor shall maintain, for a period of five (5) years from the date of last action, all records relating to apprentice applications, (regardless of outcome), the employment and training of apprentices and information relevant to the operation of the apprenticeship program. This includes, but is not limited to records on the recruitment, application and selection of apprentices, periodic advancements, disciplinary actions, layoffs, terminations, rates of pay, hours of on-the-job training and job related education and other pertinent data.
- 2. The records shall be made available upon request to the Bureau of Apprenticeship and Training, U. S. Department of Labor.

Section 14 – Amendments or Modifications

- 1. These Standards of Apprenticeship may be modified or amended at any time by the Program Sponsor.
- A copy of each amendment adopted shall be furnished to each Apprentice employed by the Program Sponsor. 2.
- 3. All modifications and amendments must be approved by the Registration Agency prior to implementation.

Section 15 – Adjustment of Differences and Complaint Procedure

Discrimination Complaints

- 1. Any Apprentice or applicant for apprenticeship who believes that he or she has been discriminated against on the basis of race, color, religion, national origin, or sex, with regard to apprenticeship or that the equal opportunity standards with respect to his or her selection have not been followed in the operation of an apprenticeship program, may personally or through an authorized representative, file a complaint with the U.S. Department of Labor, Office of Apprenticeship.
- 2. The complaint must be filed not later than 180 days from the date of the alleged discrimination or specified failure to follow the equal opportunity standards. The complaint shall be in writing and shall be signed by the complainant. It must include the name, address, and telephone number of the person allegedly discriminated against, the Sponsor involved, and a brief description of the circumstances of the failure to apply the equal opportunity standards.

Non-Discrimination Complaints

- 1. Any controversy or difference arising under an apprenticeship agreement which cannot be adjusted locally and which is not covered by a collective bargaining agreement, may be submitted by an Apprentice, or his/her authorized representative to U.S. Department of Labor, Office of Apprenticeship for review. Matters covered by a collective bargaining agreement are not subject to such review.
- The complaint must be in writing and signed by the complainant, or authorized representative, and be submitted within 2. 60 days of the final local decision. It shall set forth the specific matter(s) complained of, together with all relevant facts and circumstances. Copies of all pertinent documents and correspondence shall accompany the complaint. The Office of Apprenticeship, South Carolina State Office, will render an opinion within 90 days after receipt of the complaint, based upon an investigation. When an opinion is rendered, copies of will be sent to all involved parties.

[29 CFR 29.5(b)(9)]





[29 CFR 29.5(b)(21)]

[29 CFR 29.5(b)(17)]

[29 CFR 29.5(b)(23)]

(29 CFR Part 29)

(29 CFR Part 30)

[29 CFR 29.5(b)(6)]



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Section 17 – Identification of the Registration Agency

 The Registration Agency is the U.S. Department of Labor – Office of Apprenticeship, South Carolina State Office located at 1835 Assembly Street – Suite 838, Columbia, SC 29201. Phone: 803-765-5547 FAX: 803-765-5588

Section 18 – Notice to Registration Agency of Apprenticeship Agreements

1. The program sponsor or its designated apprenticeship committee shall promptly notify the Registration Agency of all new Apprentices to be registered; credit granted to apprentices; suspensions for any reason; reinstatements; extensions; cancellations; and any requests for Certificates of Completion.

Section 19 – Consultants

 Advice and assistance in the successful operation of this Apprenticeship Program will be available at any time, upon request by the Sponsor, from representatives of the U.S. Department of Labor, Office of Apprenticeship or Apprenticeship CarolinaTM of the S. C. Technical College System.

Section 20 – Program Deregistration

- 1. These Apprenticeship Standards will, upon adoption by United Tool and Mold, Inc., be submitted to the Registration Agency for approval. Such approval will be required before implementation of the Apprenticeship Program.
- 2. United Tool and Mold, Inc. reserves the right to discontinue at any time the Program set forth herein. The Registration Agency shall be notified promptly of any decision to cancel the Apprenticeship Program.
- 3. Deregistration of these Standards of Apprenticeship may be initiated by the Registration Agency for failure of the Program Sponsor to abide by the provisions herein.

Section 21 – Conformance with Federal Laws and Regulations

1. No Section of these Standards of Apprenticeship shall be construed as permitting violation of any Federal Law or Regulation.

Section 22 – Contact Information

1. Contact information for the appropriate individual with authority under the program to receive, process, and make disposition of complaints.

Name: Jeromy Arnett Address: 2809 Greenville Highway, Easley, SC 29640 Telephone Number: (864)-859-8300 x110 Email Address: jarnett@utminc.com

Section 16 – Completion Certificate

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- 1. Upon satisfactory completion of the requirements of the Apprenticeship Program as established in these Standards, the Local Committee or authorized sponsor representative shall so certify in writing to the Registration Agency and request that a Certificate of Completion is awarded for completion of the Apprenticeship.
- 2. Such requests shall be accompanied by the appropriate documentation that certifies on-the-job work experience and the related instruction of the Apprentice.

[29 CFR 29.5(b)(15)]

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[29 CFR 29.5(b)(19)]

[29 CFR 29.5(b)(17)]

[29 CFR 29.5(b)(18)]







Section 23 – Official Adoption of Apprenticeship Standards

United Tool and Mold, Inc. hereby officially adopts these Standards of Apprenticeship on this ______ day of

_____, 2010.

/s/_____ Scott Phipps President





Attachment 1A: On-the-Job Learning and Education Outline CNC Operator

O*Net Code	DOT Code	RAPIDS Code
51.4011.01	609.262-010	0845

Section 1 – On-the-Job Learning

[29 CFR 29.5(b)(2)]

- 1. During the Apprenticeship, the Apprentice shall receive work experience and job related education in all phases of the occupation, including safe work practices, necessary to develop the skill and proficiency of a skilled professional.
- 2. The program sponsor or its designated apprenticeship committee must ensure Apprentices are rotated throughout the various work processes to ensure a well-rounded professional upon completion of the Apprenticeship, and identify what methodology will be used to track progression of experience on-the-job.
- 3. Such on-the-job training shall be carried on under the direction and guidance of a qualified professional.

The following identifies the major work processes in which Apprentices will be trained.

Work Process Category	Approx. Hours	Or Demonstrated Competency:
1. Plant Safety	100	Supervisor's Initials: Date:
2. Quality	60	Supervisor's Initials: Date:
3. Metal Basics	200	Supervisor's Initials: Date:
4. Electrical Basics	400	Supervisor's Initials: Date:
5. Welding (Tig/Mig/Stick)	350	Supervisor's Initials: Date:
6. Lathe Manual	200	Supervisor's Initials: Date:
7. Milling (Manual)	340	Supervisor's Initials: Date:
8. Fitting	200	Supervisor's Initials: Date:
9. Hydraulics	250	Supervisor's Initials: Date:
10. Grinding	200	Supervisor's Initials: Date:
11. EDM	300	Supervisor's Initials: Date:
12. Dies/Jigs/Fixtures	400	Supervisor's Initials: Date:
13. Preventive Maintenance	250	Supervisor's Initials: Date:





14. CAD/CAM	800	Supervisor's Initials:	Date:
15. CNC Milling	1100	Supervisor's Initials:	Date:
16. Machine Maintenance	350	Supervisor's Initials:	Date:
17. Troubleshooting	750	Supervisor's Initials:	Date:
18. Hot Runner Basics	300	Supervisor's Initials:	Date:
19. Process Planning	400	Supervisor's Initials:	Date:
20. Spotting	400	Supervisor's Initials:	Date:
21. Polishing	300	Supervisor's Initials:	Date:
Total Hours:	7650		





Every Apprenticeship Instructor shall:

(1) Meet the State Dept. of Education's requirements for a vocational technical instructor in the State of Registration. OR

(2) Be a subject matter expert which is defined as an individual who is recognized within an industry as having expertise in a specific occupation. AND

(3) Have training in teaching techniques and adult learning styles, which may occur before or after the apprenticeship instructor has started to provide the Job Related Education (JRE).

Section 3 – Job Related Education

Section 3 – Job Kel	elatea Education	[29 CFK 29.5(b)(4)]
Provider(s):	United Tool and Mold/Tri County Technical College/Spartanburg Commu	nity College/Expert Tech
Method:	Classroom, Labs, On-line, and Vendor Demonstration	

- 1. During the term of apprenticeship, each Apprentice is required to complete approximately 144 hours of related education for each year of the Apprenticeship.
- 2. Each Apprentice's attendance and progress in related education must be tracked and appropriate records maintained.
- 3. Courses may be taken during or outside the regular working hours. All time spent in such classes after regular working hours shall not be considered as hours of work. If required to attend classes or work through on-line courses, the apprentices shall be compensated at their regular hourly rate.
- 4. Time devoted to the job related education shall not be considered as part of the on-the-job learning (OJL).
- 5. Failure on the part of the Apprentice to fulfill their obligation as to the related education and/or attendance, or their failure to maintain passing grades therein, shall constitute adequate cause for cancellation of their Apprenticeship Agreement.

The course listings outline the related education that supplements the on-the-job learning. It is through the combination of both the on-the-job learning and the related education that the apprentice can reach the skilled level of the occupation. The following is the required course curriculum during the term of apprenticeship.

			Provider	
Job Related Education Topic	Hours	UTM	Technical College	Expert Tech
Molds 100	40			х
Industrial Safety	10	х		
Machine Tool Math	40		х	
Reading/ Precision Mesurement	30		х	
Machining Fundamentals I	32		Х	
Quality Systems & Inspection	16	х		
Manufacturing Processes & Planning	20		х	
Metallurgy Fundamentals	40		х	

[29 CFR 29.5(b)(4 (i) (ii))]



[29 CFR 29.5(b)(4)]





Maintenance	60		Х	
Machining Fundamentals II	32		Х	
Jig & Fixture Design	40		х	
Hot Runner Basics	20	Х		
Basic Electrical	40		х	
Basic Welding	40	Х	Х	
Intro Spotting/Polishing	20	Х		
Hydraulic Systems	20		Х	
Intro To CNC	32		х	
Intro to PC	10	Х		
CAD/CAM	20		х	
CNC Milling	60		Х	
CNC Programming	60		х	
Expert Tech CNC	80			х
Total Hours:	762	116	526	120

Attachment 1B: Trade Schedule **CNC Operator**

O*Net Code	DOT Code	RAPIDS Code
51.4011.01	609.262-010	0845

Section 1 – Minimum Qualifications for Apprenticeship

Applicants shall meet the following minimum qualifications:

1. Age: Shall be at least 16 years of age.

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- 2. Education: Shall possess a high school diploma or GED equivalency.
- **Physical/Mental:** Shall be physically capable of performing the essential functions of the occupation without 3. endangering the health and safety of themselves and/or fellow workers. Applicants shall be allowed to request reasonable accommodation for a disability to meet this standard when applicable.

Section 2 – Term of Apprenticeship

- The term of Apprenticeship shall be a period of reasonably continuous employment, including the probationary period 1. as stated on this "Trade Schedule" attached to and made a part of these Standards; plus the required hours per year of related education.
- 2. The program is premised on competencies demonstrated in lieu of time considerations. However, Title 29, CFR Part 29 requires that time considerations be addressed in the Standards.
- 3. The term of apprenticeship shall be 7650 hours of reasonably continuous employment and training on the job, supplemented by the required 762 hours of job related education.
- 4. An Apprentice, who, by exceptional aptitude or as a result of past education and/or practical experience, achieves the desired level of competency in a phase of the Apprenticeship Program in less than the time designated or illustrates existing competency on the initial assessment, may be advanced to the appropriate level.

Section 3 – Probationary Period

- The first 90 days as a registered apprentice shall be considered a Probationary Period if the apprentice is a new hire, as consistent with United Tool and Mold, Inc.'s policy.
- 2. During this Probationary Period, either party may terminate the Apprenticeship Agreement, without cause.
- After the Probationary Period, the Agreement may be cancelled for cause, with written notice to the Apprentice and after 3. a reasonable opportunity for corrective action. Written notice of action will be forwarded to the Registration Agency.

Section 4 – Apprentice to Professional Ratio

- A numeric ratio of apprentices to fully skilled professionals in the occupation consistent with proper supervision, 1 training, safety, and continuity of employment except where such ratios are expressly prohibited by collective bargaining agreements. The ratio language must be specific and clearly described as to its application to the job site, employer's total workforce, department, or plant.
- 2. The ratio of apprentices employed (on the job site, department, plant, or employer's total workforce) to fully skilled professionals will typically be 1:1.

Page 1 1B - Trade Schedule: CNC Operator







[29 CFR 29.5(b)(8)] and 29 CFR 29.7(h) (1) and (2)(i) (ii)

[29 CFR 29.5(b)(10)]

[29 CFR 29.5(b)(2)]





Section 5 – Apprentice Wage Progression

[29 CFR 29.5(b)(5)]

- 1. Apprentices shall be paid a progressively increasing schedule of wages for each hour spent on the job during their apprenticeship based on the acquisition of increased skill and competence as the training progresses.
- 2. The wage schedule is stated on this "Trade Schedule" attached to and made a part of these Standards. At no time will the starting wage rate be less than that required by any minimum wage law which may be legally applicable.
- 3. To qualify for the next level the apprentice must have completed the necessary on-the-job training (OJT) hours and the related education component, as listed on the *On-the-Job Learning and Education Outline* related to this occupation.

Level	Starting Wage	Approx. Hours	On-the-Job Learning Benchmark	Education Benchmark
1	\$9.00	0-2000	Exhibit working knowledge of all required tasks	Begin job related education and exhibit satisfactory progress
2	\$10.00	2000-7650	Exhibit proficiency in all required tasks	Complete all required job related education with satisfactory progress

The current Wage Rate for an employee at the full performance level for this occupation is \$15.00 per hour. (Updated annually)





Attachment 2A: On-the-Job Learning and Education Outline Repairman

O*Net Code	DOT Code	RAPIDS Code
51.4111.00	601.260-010	0586

Section 1 – On-the-Job Learning

[29 CFR 29.5(b)(2)]

- 1. During the Apprenticeship, the Apprentice shall receive work experience and job related education in all phases of the occupation, including safe work practices, necessary to develop the skill and proficiency of a skilled professional.
- 2. The program sponsor or its designated apprenticeship committee must ensure Apprentices are rotated throughout the various work processes to ensure a well-rounded professional upon completion of the Apprenticeship, and identify what methodology will be used to track progression of experience on-the-job.
- 3. Such on-the-job training shall be carried on under the direction and guidance of a qualified professional.

The following identifies the major work processes in which Apprentices will be trained.

Work Process Category	Approx. Hours	Or Demonstrated Competency:
1. Plant Safety	100	Supervisor's Initials: Date:
2. Quality	60	Supervisor's Initials: Date:
3. Metal Basics	200	Supervisor's Initials: Date:
4. Electrical Basics	400	Supervisor's Initials: Date:
5. Welding (Tig/Mig/Stick)	350	Supervisor's Initials: Date:
6. Lathe Manual	200	Supervisor's Initials: Date:
7. Milling (Manual)	340	Supervisor's Initials: Date:
8. Fitting	200	Supervisor's Initials: Date:
9. Hydraulics	250	Supervisor's Initials: Date:
10. Grinding	200	Supervisor's Initials: Date:
11. EDM	300	Supervisor's Initials: Date:
12. Dies/Jigs/Fixtures	400	Supervisor's Initials: Date:
13. Preventive Maintenance	650	Supervisor's Initials: Date:





14. CAD/CAM	200	Supervisor's Initials:	Date:
15. CNC Milling	500	Supervisor's Initials:	Date:
16. Machine Maintenance	250	Supervisor's Initials:	Date:
17. Troubleshooting	1100	Supervisor's Initials:	Date:
18. Hot Runner Basics	300	Supervisor's Initials:	Date:
19. Process Planning	150	Supervisor's Initials:	Date:
20. Spotting	900	Supervisor's Initials:	Date:
21. Polishing	600	Supervisor's Initials:	Date:
Total Hours:	7650		





Every Apprenticeship Instructor shall:

(1) Meet the State Dept. of Education's requirements for a vocational technical instructor in the State of Registration. OR

(2) Be a subject matter expert which is defined as an individual who is recognized within an industry as having expertise in a specific occupation. AND

(3) Have training in teaching techniques and adult learning styles, which may occur before or after the apprenticeship instructor has started to provide the Job Related Education (JRE).

Section 3 – Job Related Education

[29 CFR 29.5(b)(4)]

Section 3 – Job Related Education				
Provider(s):	Tri County Technical College/Spartanburg Community College/Expert Tech	1		
Method:	Classroom, Labs, On-line, and Vendor Demonstration			

- 1. During the term of apprenticeship, each Apprentice is required to complete approximately 144 hours of related education for each year of the Apprenticeship.
- 2. Each Apprentice's attendance and progress in related education must be tracked and appropriate records maintained.
- 3. Courses may be taken during or outside the regular working hours. All time spent in such classes after regular working hours shall not be considered as hours of work. If required to attend classes or work through on-line courses, the apprentices shall be compensated at their regular hourly rate.
- 4. Time devoted to the job related education shall not be considered as part of the on-the-job learning (OJL).
- 5. Failure on the part of the Apprentice to fulfill their obligation as to the related education and/or attendance, or their failure to maintain passing grades therein, shall constitute adequate cause for cancellation of their Apprenticeship Agreement.

The course listings outline the related education that supplements the on-the-job learning. It is through the combination of both the on-the-job learning and the related education that the apprentice can reach the skilled level of the occupation. The following is the required course curriculum during the term of apprenticeship.

		Provider		
Job Related Education Topic	Hours	UTM	Technical College	Expert Tech
Molds 100	40			х
Industrial Safety	10	х		
Machine Tool Math	40		Х	
Reading/ Precision Mesurement	30		х	
Machining Fundamentals I	32		Х	
Quality Systems & Inspection	16	х		
Manufacturing Processes & Planning	20		х	
Metallurgy Fundamentals	40		х	

[29 CFR 29.5(b)(4 (i) (ii))]





Maintenance	60		Х	
Machining Fundamentals II	32		Х	
Jig & Fixture Design	40		х	
Hot Runner Basics	20	Х		
Basic Electrical	40		х	
Basic Welding	40	Х	Х	
Intro Spotting/Polishing	20	Х		
Hydraulic Systems	20		Х	
Intro To CNC	32		х	
Intro to PC	10	Х		
Preventive Maintenance	20	Х		
Troubleshooting	20	Х		
Spotting	40	х		
Polishing	60	Х		
Total Hours:	682	256	386	40

Attachment 2B: Trade Schedule Repairman

O*Net Code	DOT Code	RAPIDS Code
51.4111.00	601.260-010	0586

Section 1 – Minimum Qualifications for Apprenticeship

Applicants shall meet the following minimum qualifications:

1. Age: Shall be at least 16 years of age.

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- 2. Education: Shall possess a high school diploma or GED equivalency.
- 3. **Physical/Mental**: Shall be physically capable of performing the essential functions of the occupation without endangering the health and safety of themselves and/or fellow workers. Applicants shall be allowed to request reasonable accommodation for a disability to meet this standard when applicable.

Section 2 – Term of Apprenticeship

- 1. The term of Apprenticeship shall be a period of reasonably continuous employment, including the probationary period as stated on this "Trade Schedule" attached to and made a part of these Standards; plus the required hours per year of related education.
- 2. The program is premised on competencies demonstrated in lieu of time considerations. However, Title 29, CFR Part 29 requires that time considerations be addressed in the Standards.
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[29 CFR 29.5(b)(10)]

[29 CFR 29.5(b)(2)]

[29 CFR 29.5(b)(7)]

[29 CFR 29.5(b)(8)] and 29 CFR 29.7(h) (1) and (2)(i) (ii)





Section 5 – Apprentice Wage Progression

[29 CFR 29.5(b)(5)]

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