



TEAM® Technical School
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CatalogVolumeVI-Published01/02/2020-Effective01/02/2020

TEAM® Technical School

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HISTORY

Founded in 1973, TEAM is a leading industrial services company offering an array of specialized services related to the construction, maintenance, and monitoring of pressurized piping and associated systems. We serve customers in the refining, petrochemical, power, pipeline, and other heavy industrial industries with a level of service that goes above and beyond. With more than 130 U.S. and international locations, we are rapidly growing our global footprint across a wide range of industries - with service locations in five continents.

TEAM's Training program has expanded to include TEAM Technical School, which will eventually encompass training for all our service offerings.

TEAM Technical School is approved by Texas Workforce Commission, Career Schools & Colleges. (License # S4801) The main level of the facility houses the Training and Quality Departments, as well as IT, Marketing, Technical Support and Reliability Departments for TEAM. The upper level is dedicated to four state of the art classrooms. The large, 42-person capacity room has auditorium seating, while the three remaining rooms can seat 15 students each, or can be combined into either one or two rooms.

The 50,000 square foot equipment center houses the NDE Training Lab, and the Training Shop for Mechanical Services, NDE, and Heat Treating as well as an inventory of equipment utilized by various services provided by the company.

The NDE Lab contains a 5000-amp horizontal wet bench for magnetic particle testing, a liquid penetrant booth to accommodate both visible and fluorescent dye, a self-contained x-ray cabinet, plus all of the ancillary equipment and process controls to demonstrate a fully functioning lab. The lab also contains several portable UT, MT, and PT equipment for training and demonstration.

Adjacent to the lab is a fully functioning darkroom equipped with both manual and automatic processing. This darkroom is large enough to accommodate several students at one time.

The Training Shop is equipped with a three-ton overhead crane, a 600 MAWP boiler, and water pump capable of pumping 10,000 psi. These items are used for training, research, and development for online leak repair training, hot tapping, field machining, technical bolting, and valve repair services.

OFFICERS AND DIRECTORS

Amerino Gatti, Chief Executive Officer

Grant Roscoe, President – Operations

Jeff Ott, President – Product and Service Lines & Quest Integrity

Susan M. Ball, Executive Vice President, CFO & Treasurer

Andre Bouchard, Executive Vice President, Chief Legal Officer & Secretary

Louis Waters, Chairman of the Board

Sylvia Kerrigan, Independent Director

Emmett Lescroart, Independent Director

Michael Lucas, Independent Director

Brian Ferraioli, Independent Director

Vincent Foster, Independent Director

Jeffery Davis, Independent Director

Craig Martin, Independent Director

Chuck Rosenbrock

Instructor HT, LS, HS, FHLS, IV, AT, SME 26 Years of service in the industry

Mike Hebert

Instructor LDAR, SME 35 years of service in the industry

Robert Williams

Instructor LDAR, SME 27 years of service in the industry

Rob Federman

Instructor LDAR, SME 24 years of service in the industry

Sandra Gaitan Kurt

Instructor UTA, PT, MT, UT, VT

Michael Shelby

Instructor ICC, EHT, ECT

Ralph Evans

Instructor HT, LS, HS, FHLS, IV, AT, BS, SME 16 Years of service in the industry.

Charles Piefer

Instructor Radiation Safety, 26 Years of service in the industry

Jimmy Thompson

Instructor LS, HT,HS,FHLS,AT

Christopher Crowell

Instructor HT, LS,HS, FHLS,IV,AT

Robert Fandray

Instructor LRS Basic, LRS Intermediate

Melaney Clark

TTS Representative

Katherine Benjamin

TTS Representative

Method Abbreviations:

UT – Ultrasonic Testing

MT – Magnetic Particle Testing

PT – Liquid Penetrant Testing

RT – Radiographic Testing

VT – Visual Testing

CR – Computed Radiography

DR – Digital Radiography

IHT – Induction Heat Treating

CHT – Combustion Heat Treating

EHT – Electrical Resistance Heat Treating

LS – Line Stop

HT – Hot Tap

HS – Hi- Stop®

FHLS – Folding Headline Stop

IV – Insert Valve™

AT – Angle Tap

BS – Inflatable Line Stop

LRS – Leak Repair

FMS – Field Machining Services

LDAR – Leak Detection and Repair

TBS – Technical Bolting Services

ITP – Isolation Test Plug

SEMINAR FEES

Liquid Penetrant Testing Level I/II	\$670.00
Magnetic Particle Testing Level I/II	\$875.00
Ultrasonic Thickness Testing A-Scan	\$875.00
Radiographic Film Interpretation	\$875.00
Radiographic Testing Level I	\$1195.00
Radiographic Testing Level II	\$1195.00
Ultrasonic Testing Level I	\$1195.00
Ultrasonic Testing Level II	\$1195.00
Computed Radiography	\$1440.00

PROGRAMS

40 Hour Radiation Safety Course	\$635.00
Heat Treat Electrical Level I	\$405.00
Heat Treat Electrical Level II	\$775.00
Heat Treat Combustion Level I	\$405.00
Heat Treat Combustion Level II	\$775.00
Heat Treat Induction Level I	\$460.00
Leak Repair (LRS) Technician Basic	\$2875.00
Leak Repair (LRS) Technician Level I	\$2875.00
Leak Repair (LRS) Technician Intermediate	\$2875.00

Leak Repair (LRS) Technician Level II	\$2875.00
Hot Tap (HTS) Technician Level I	\$2875.00
Hot Tap (HTS) Technician Level II	\$4025.00
Hot Tap (HTS) Advanced Technician	\$5175.00
Field Machining (FMS) Technician Level I	\$1725.00
Field Machining (FMS) Technician Level II	\$2875.00
Field Machining (FMS) Advanced Technician	\$4025.00

Fee includes all books and supplies as noted in the enrollment agreement.

SCHOOL CALENDAR

HOLIDAYS TO BE OBSERVED 2020

New Year's Day – Wednesday, January 1, 2020

Good Friday – Friday, April 10, 2020

Memorial Day - Monday, May 25, 2020

Independence Day - Friday, July 3, 2020

Labor Day - Monday, September 7, 2020

Thanksgiving Day - Thursday, November 26, 2020

Day after Thanksgiving Day - Friday, November 27, 2020

Christmas Eve - Thursday, December 24, 2020

Christmas Day - Friday, December 25, 2020

ENROLLMENT CUTOFF

All enrollment must be completed through the Registrar's office no later than two weeks prior to the start of class.

CLASS SCHEDULE 2020

January 6-10, 2020	FMS Technician Level II
January 13-17, 2020	HTS Technician Level II
January 13-17, 2020	Radiographic Testing (RT) Level I Seminar
January 13-17, 2020	FMS Technician Advanced
January 13-15, 2020	Ultrasonic Testing Thickness (UTT) A-Scan Level II Seminar
January 19-25, 2020	Leak Repair (LRS) Technician Basic
January 20-21, 2020	Liquid Penetrant Testing (PT) Level I/II Seminar
January 22-24, 2020	Magnetic Particle Testing (MT) Level I/II Seminar
January 28-30, 2020	Radiographic Film Interpretation Seminar
February 3-7, 2020	HTS Technician Advanced
February 10-11, 2020	Liquid Penetrant Testing (PT) Level I/II Seminar
February 11-13, 2020	FMS Technician Level I
February 12-14, 2020	Magnetic Particle Testing (MT) Level I/II Seminar
February 17-21, 2020	Leak Repair (LRS) Technician Level II
February 24-28, 2020	FMS Technician Level II
February 25-27, 2020	Ultrasonic Testing Thickness (UTT) A-Scan Level II Seminar

March 2-6, 2020	Ultrasonic Testing (UT) Level I Seminar
March 9-20, 2020	HTS Technician Level I
March 9-13, 2020	FMS Technician Advanced
March 16-20, 2020	40 Hour Radiation Safety
March 23-28, 2020	Leak Repair (LRS) Technician Intermediate
March 23-24, 2020	Liquid Penetrant Testing (PT) Level I/II Seminar
March 25-27, 2020	Magnetic Particle Testing (MT) Level I/II Seminar
April 6-10, 2020	40 Hour Radiation Safety
April 13-17, 2020	HTS Technician Level II
April 14-16, 2020	FMS Technician Level I
April 14-16, 2020	Radiographic Film Interpretation Seminar
April 20-22, 2020	Ultrasonic Testing Thickness (UTT) A-Scan Level II Seminar
April 20-24, 2020	Leak Repair (LRS) Technician Intermediate
April 20-24, 2020	FMS Technician Level II
April 24 – May 1, 2020	Radiographic Testing (RT) Level I Seminar
May 4-8, 2020	FMS Technician Advanced
May 11-15, 2020	40 Hour Radiation Safety
May 11-15, 2020	HTS Technician Advanced
May 17-23, 2020	Leak Repair (LRS) Technician Basic

May 18-22, 2020	Ultrasonic Testing (UT) Level I Seminar
June 2-4, 2020	FMS Technician Level I
June 8-13, 2020	Leak Repair (LRS) Technician Intermediate
June 8-9, 2020	Liquid Penetrant Testing (PT) Level I/II Seminar
June 10-12, 2020	Magnetic Particle Testing (MT) Level I/II Seminar
June 15-26, 2020	HTS Technician Level I
June 15-19, 2020	40 Hour Radiation Safety
June 22-26, 2020	Radiographic Testing (RT) Level II Seminar
July 6-10, 2020	FMS Technician Level II
July 7-9, 2020	Radiographic Film Interpretation Seminar
July 13-17, 2020	HTS Technician Level II
July 26- August 1, 2020	Leak Repair (LRS) Technician Basic
July 28-30, 2020	FMS Technician Level I
August 3-5, 2020	Ultrasonic Testing Thickness (UTT) A-Scan Level II Seminar
August 10-14, 2020	HTS Technician Advanced
August 10-14, 2020	FMS Technician Level II
August 18-20, 2020	FMS Technician Level I
August 24-28, 2020	Leak Repair (LRS) Technician Level II
September 14-18, 2020	HTS Technician Level I

September 14-18, 2020	FMS Technician Level II
September 21-26, 2020	Leak Repair (LRS) Technician Intermediate
September 22-24, 2020	FMS Technician Level I
October 5-9, 2020	FMS Technician Advanced
October 19-23, 2020	Leak Repair (LRS) Technician Intermediate
October 26-30, 2020	HTS Technician Level II
November 2-6, 2020	HTS Technician Level I
November 3-6, 2020	FMS Technician Level I
November 8-14, 2020	Leak Repair (LRS) Technician Basic
November 16-20, 2020	FMS Technician Level II
November 30-Dec 4, 2020	FMS Technician Advanced
December 7-12, 2020	Leak Repair (LRS) Technician Intermediate
December 14-18, 2020	HTS Technician Advanced

NORMAL HOURS OF OPERATION

SCHOOL HOURS OF OPERATION

Monday – Friday: 7:30am – 5:00pm

SCHOOL OFFICE HOURS OF OPERATION

Monday – Friday: 7:30am – 5:00pm

DAILY CLASS SCHEDULE BREAKS

For each one hour of instruction, a ten-minute break will be provided

MEAL TIMES

A 30-minute lunch break will be provided from 12:00pm–12:30pm

ADMISSION REQUIREMENTS

Individuals enrolling in a program are required to:

- a. Interview with the Registrar, Executive Assistant, or Director.
- b. Be at least 18 years of age.
- c. Proof of High School Diploma or GED

Individuals enrolling in a seminar are required to:

- a. Interview with the Registrar, Executive Assistant, or Director.
- b. Be at least 18 years of age.
- c. Document any previous Industrial or Commercial training or work experience.

CANCELLATION AND REFUND POLICIES FOR PROGRAMS

1. Refund computations will be based on scheduled course time of classes through the last documented day of an academically related activity. Leaves of absence, suspensions and school holidays will not be counted as part of the scheduled class attendance.
2. The effective date of termination for refund purposes will be the earliest of the following:
 - a. the date of termination, if the student is terminated by the school;
 - b. the date of receipt of written notice from the student; or
 - c. ten school days following the last date of attendance.
3. If tuition and fees are collected in advance of entrance, and if after expiration of the 72-hour cancellation privilege the student does not enter school, not more than \$100 in any administrative fees charged shall be retained by the school for the entire residence program or synchronous distance education course.
4. If a student enters a residence or synchronous distance education program and withdraws or is otherwise terminated, the school may retain not more than \$100 in administrative fees charged for the entire program. The minimum refund of the remaining tuition and fees will be the pro rata portion of tuition, fees, and other charges that the number of hours remaining in the portion of the course or program for which the student has been charged after the effective date of termination bears to the total number of hours in the portion of the course or program for which the student has been charged, except that a student may not collect a refund if the student has completed 75 percent or more of the total number of hours in the portion

of the program for which the student has been charged on the effective date of termination. (More simply, the refund is based on the precise number of course time hours for which the student has paid, but not yet used, at the point of termination, up to the 75% completion mark, after which no refund is due.)

5. Refunds for items of extra expense to the student, such as books, tools, or other supplies are handled separately from refund of tuition and other academic fees. The student will not be required to purchase instructional supplies, books and tools until such time as these materials are required. Once these materials are purchased, no refund will be made. For full refunds, the school can withhold costs for these types of items from the refund as long as they were necessary for the portion of the program attended and separately stated in the enrollment agreement. Any such items not required for the portion of the program attended must be included in the refund.
6. A student who withdraws for a reason unrelated to the student's academic status after the 75 percent completion mark and requests a grade at the time of withdrawal shall be given a grade of "incomplete" and permitted to re-enroll in the course or program during the 12- month period following the date the student withdrew without payment of additional tuition for that portion of the course or program.
7. A full refund of all tuition and fees are due and refundable in each of the following cases:
 - a. an enrollee is not accepted by the school;
 - b. if the course of instruction is discontinued by the school and this prevents the student from completing the course; or
 - c. if the student's enrollment was procured because of any misrepresentation in advertising, promotional materials of the school, or representations by the owner or representatives of the school.

A full or partial refund may also be due in other circumstances of program deficiencies or violations of requirements for career schools and colleges

8. Refund Policy for Students Called to Active Military Service

A student of TEAM Industrial Services Technical School who withdraws from the school as a result of the student being called to active duty in a military service of the United States or the Texas National Guard may elect one of the following options for each program in which the student is enrolled:

- a. if tuition and fees are collected in advance of the withdrawal, a pro rata refund of any tuition, fees, or other charges paid by the student for the program and a cancellation of any unpaid tuition, fees, or other charges owed by the student for the portion of the program the student does not complete following withdrawal;
- b. a grade of incomplete with the designation "withdrawn-military" for the courses in the program, other than courses for which the student has previously received a grade on the student's transcript, and the right to re-enroll in the

- program, or a substantially equivalent program if that program is no longer available, not later than the first anniversary of the date the student is discharged from active military duty without payment of additional tuition, fees, or other charges for the program other than any previously unpaid balance of the original tuition, fees, and charges for books for the program; or
- c. the assignment of an appropriate final grade or credit for the courses in the program, but only if the instructor or instructors of the program determine that the student has:
 - i. satisfactorily completed at least 90 percent of the required coursework for the program; and
 - ii. demonstrated sufficient mastery of the program material to receive credit for completing the program.
9. Payment of refunds will be totally completed such that the refund instrument has been negotiated or credited into the proper account(s) within 60 days after the effective date of termination.

CANCELLATION AND REFUND POLICIES FOR SEMINARS

1. Refund computations will be based on the period of enrollment computed on basis of course time (clock hours).
2. The effective date of termination for refund purposes will be the earliest of the following:
 - a. the last date of attendance; or
 - b. the date of receipt of written notice from the student.
3. If tuition and fees are collected in advance of entrance, and the student does not enter school, not more than \$100 shall be retained by the school.
4. If the student fails to enter the seminar, withdraws, or is discontinued at any time before completion of the seminar, the student will be refunded the pro rata portion of tuition, fees, and other charges that the number of class hours remaining in the seminar after the effective date of termination bears to the total number of class hours in the seminar.
5. A full refund of all tuition and fees is due in each of the following cases:
6. Refund Policy for Students Called to Active Military Service

A student of TEAM Industrial Services Technical School who withdraws from the school as a result of the student being called to active duty in a military service of the United States or the Texas National Guard may elect one of the following options for each program in which the student is enrolled:

- a. if tuition and fees are collected in advance of the withdrawal, a pro rata refund of any tuition, fees, or other charges paid by the student for the program and a cancellation of any unpaid tuition, fees, or other charges owed by the student

for the portion of the program the student does not complete following withdrawal;

- b. a grade of incomplete with the designation "withdrawn-military" for the courses in the program, other than courses for which the student has previously received a grade on the student's transcript, and the right to re-enroll in the program, or a substantially equivalent program if that program is no longer available, not later than the first anniversary of the date the student is discharged from active military duty without payment of additional tuition, fees, or other charges for the program other than any previously unpaid balance of the original tuition, fees, and charges for books for the program; or
 - c. the assignment of an appropriate final grade or credit for the courses in the program, but only if the instructor or instructors of the program determine that the student has:
 - i. satisfactorily completed at least 90 percent of the required coursework for the program; and
 - ii. demonstrated sufficient mastery of the program material to receive credit for completing the program.
7. Refunds will be totally consummated within 60 days after the effective date of termination.

SEMINARS

Liquid Penetrant Testing (PT) Level I/II

12 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S1.

The course will cover an introduction to NDT and its different techniques. Become familiar with ASNT-CP-105 and ASNT SNT-TC-1A.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
PT-II	Liquid Penetrant Testing Level I/II	8/4/12
	Introduction/General	.5/0/.5
	<ul style="list-style-type: none"> This provides students with the knowledge of the different NDT certifications, history and development of penetrant testing methods, advantages, limitation, related terminologies, and concept of POD (probability of detection) in PT methods. 	
	Characteristics of Penetrant	1/0/1
	<ul style="list-style-type: none"> This provides students with the knowledge of main characteristics of penetrant materials like: surface tension, wetting ability, capillary action, and the effects them on the performance of penetrants. Review different physical and chemical properties of penetrants like: viscosity, volatility, flash point, water tolerance, removability, non- toxicity, and storage ability. 	
	Basic Process of PT	2/0/2
	<ul style="list-style-type: none"> This provides student with the knowledge on the basic process of penetrant testing, importance of part preparation (pre-cleaning, surface temperature), different methods of pre-cleaning in industries, and metal smearing. Review of the different methods of applying penetrant, concept of dwell time and its codes recommendation, different types of penetrants: visual and fluorescent, color vision, contrast ratio, adequate lighting, black light and its related requirements. 	
	Developer and Post-Emulsification Materials	2/0/2
	<ul style="list-style-type: none"> This provides students with the understanding of main properties of developers, their different types, different techniques to apply, and post-cleaning. To understand the effect of emulsification in penetrant testing, oil base and water-base emulsifiers, different methods of penetrant systems, classifications of different fluorescent PT systems, proper selection of PT systems for different materials, different PT process control and standard monitor devices. 	

Evaluation of PT Indications

2/0/2

- This provides students with the knowledge of different types of indications, factors affecting the appearance of indications, interpretation and evaluation of PT indications in different manufacturing process like: forgings, casting, welding and Machining. Review the related code and standards for accept/reject criteria.

Safety and Health of PT System

.5/0/.5

- This provides students with an understanding of safety and health issues related to PT: toxicity, flammability, storage, waste disposal, precautions for ultraviolet radiation, and material safety data sheet.

Practical Sessions

0/4/4

- This provides students to opportunity to practice the application of different types of PT systems, evaluation of the PT indications and preparing PT report.

Magnetic Particle Testing (MT) Level I/II

20 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S1.

The course will cover an introduction to NDT and its different techniques. Become familiar with ASNT-CP-105 and ASNT SNT-TC-1A.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
MT-II	Magnetic Particle Testing Level I/II	16/4/20
	Introduction/General	1/0/1
	<ul style="list-style-type: none"> This provides students with the knowledge of the different NDT certifications, history of magnetism and development of magnetic particle testing. Review the advantages, limitations, application and terminologies associated with MT. 	
	Principles of Magnets and Magnetic Fields	4/0/4
	<ul style="list-style-type: none"> This provides students with the knowledge of main characteristics of magnetic fields, theory of magnetism, magnetic lines around a magnet, magnet bars, magnet rings, magnetic poles, magnetic flux leakage, basic units (Tesla, Gauss), and effect of discontinuities orientation and location (surface, sub-surface) on magnetic flux leakage. Review the concepts like: magnetic domains, residual magnetism, materials magnetic characteristics (Ferromagnetic, Paramagnetic, and Diamagnetic), magnetic hysteresis curve, its importance in material magnetization, and review the main concept of magnetic particle testing. Review different magnetic powders: dry, wet, visual and florescent particles, their physical characteristics and specific application. 	
	Magnetization of Materials	4/0/4
	<ul style="list-style-type: none"> This provides students with the knowledge of materials magnetization by electrical currents, different types of electrical currents: AC, DC, HWDC, FWDC, and three-phase FWDC. Review different types of magnetization: longitudinal and circular. Review the test detectability: the effect of magnetic field directions and discontinuity orientations. Review applications of yoke, prods, coil magnetization and central conductors, practice the calculation of required applied currents for each technique, the application of quick break and its requirement, stationary MT units, multidirectional MT units, selection of proper method of magnetization, sequence of operations. 	
	Evaluation of MT Indications	4/0/4
	<ul style="list-style-type: none"> This provides students with the knowledge of different types of indications: true, false, relevant and non-relevant, the interpretation and evaluation of magnetic particle testing in different manufacturing presses like: forgings, casting, welding, rolling, and machining, review examples of different indications, and using MT codes and standards for evaluation of MT indications. 	

Quality Control of MT Systems

3/0/3

- This provides students with an understanding of application of pie gauges, QQI shims, steel ring standards, Hall Effect meters, and specimens with known defects, the light intensity requirements for visual and fluorescent magnetic particles. Review the demagnetization technique and associate requirements. Review the safety considerations during MT using different equipment.

Practical Sessions

0/4/4

- This provides students to opportunity to practice the application of different types of MT systems, evaluation of the MT indications and preparing MT report.

UT Thickness Testing A-Scan Level II

This course meets the requirements of ASNT-CP-105 and is necessary for qualifications of individuals performing ultrasonic thickness measurement using A-Scan ultrasonic systems as specified by ASNT-SNT-TC-1A.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
UTT-A	UT Thickness A-Scan	20/4/24
	Introduction/General	1/0/1
	<ul style="list-style-type: none"> This provides students with the knowledge of the different NDT certifications, the importance of UT- thickness measurement and introduction to damage mechanisms in different structural supports 	
	Review on Principle of Acoustics	4/0/4
	<ul style="list-style-type: none"> This provides the student with the theoretical knowledge of mechanical wave propagation in materials, different modes of wave propagation, applications of each specific wave modes in ultrasonic testing. Review of interaction of ultrasonic waves with materials at normal angle, acoustic impedance, detection of planar defects, couplants, and their required properties. 	
	Attenuation of Ultrasonic Beams	3/0/3
	<ul style="list-style-type: none"> This provides the student with the knowledge of the attenuation of ultrasonic in passing through different materials, definition of dB (decibel), calculation of attenuation of ultrasonic beams based on amplitudes ratio, factors affecting the ultrasonic beam attenuation, and 6dB technique for defect sizing. Calculation of attenuation coefficients in materials. 	
	Piezoelectricity Effects & Different UT-Transducers	5/0/5
	<ul style="list-style-type: none"> This provides the student with the knowledge of piezoelectric effect, relationship between the piezoelectric thickness and its fundamental frequency, different piezoelectric materials, relationship between transducer frequency, penetration, UT-resolution and sensitivity. Provides the student with a review on different types of ultrasonic transducers like contact, dual, immersion. Review the concept of dead zone, and different parameters affecting the dead zone in ultrasonic testing. Review the damping in ultrasonic transducers, effects of damping in transducers bandwidth, shape of the initial pulse, and effects of wide and narrow bandwidth transducers on the quality of ultrasonic beams and UT-wall-thickness measurement. Review different features of dual transducers for UT-thickness measurement, doubling effect in dual transducers, application of stand-off delay line transducers, UT of high temperature application, effect of high-temperature on materials acoustic properties, temperature compensation features on updated UT-A- scan units. 	

Near Field, Far Field and Beam Spread

2/0/2

- This provides the student with an understanding of constructive and destructive interferences of multiple sources of vibration, concepts of near, far field and beam spread in ultrasonic transducers, related formulas for calculation of these parameters, side-wall effects in ultrasonic testing.

Different Ultrasonic Methods and Data Display

2/0/2

- This provides the student with the knowledge of different ultrasonic methods like: pulse-echo, through-transmission, immersion, their advantages, and limitations of each method. Be familiar with different ultrasonic data displays: A-scan, B-scan, and C-scan. Understand different features of immersion technique

UT Instrumentation & Calibration

3/0/3

- This provides the student with the knowledge of block diagram of an ultrasonic unit pulse repetition rate, controls on a typical ultrasonic flaw detector, basic of ultrasonic units, calibration, different ultrasonic reference blocks, and different UT codes requirements.

Hands on with Instruments

0/4/4

- This provides the student to obtain skills on the calibration of an A-scan ultrasonic thickness measurement transducers and performing thickness measurement on different specimens.

Radiographic Film Interpretation

24 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S1. The course will cover an introduction to radiographic film interpretation and evaluation.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
RFI	Radiographic Film Interpretation	12/12/24
	Introduction/General	1/0/1
	<ul style="list-style-type: none"> This provides students with a review of basic radiography, review of basic definitions in radiography like: contrast, definition, sensitivity, latitude, film speed, and review of basic elements of radiographic interpretation. 	
	Radiographic Image Formation	3/0/3
	<ul style="list-style-type: none"> This provides students with the knowledge of the image formation mechanism in industrial radiography, latent image, film characteristic curves, different radiographic film, ASTM film classification, RT code recommendation for film selection, density requirements, multiple-film technique, different screens, effects of scattering on image quality, masking, film processing, dark room requirements, unsatisfactory radiographs, film artifacts, film illuminators and requirements, and film viewing requirements. 	
	Geometric Relationships in Radiography	4/0/4
	<ul style="list-style-type: none"> This provides students with the understanding of different factors affecting the geometric unsharpness in a radiographic image, calculation of geometric unsharpness for different radiographic setups, RT code requirements, source-to-film distance, focal spot size, image magnification, radiographic sensitivity, application of image quality indicators (IQI) for radiographic system performance, different types of IQIs, and radiographic code requirements. 	
	Different Radiography Techniques	1/0/1
	<ul style="list-style-type: none"> This provides the student with an understanding of different radiograph techniques for different part configurations, marking locations, IQI locations, ASME code approach, and review of the techniques for discontinuity depth measurement. 	
	Elements of Radiographic Film Interpretation	3/0/3
	<ul style="list-style-type: none"> This provides the student with an understanding of different welding processes, basics of weld metal preparation, different welding discontinuities, their radiographic appearance, casting processes, different discontinuities in casting, and RT codes and procedures for accept/reject criteria. 	

Practical Sessions

0/12/12

- This provides students to opportunity to practice the application of different types of provides students an opportunity to practice viewing variety of different radiographs of welds, castings and call for any discontinuities to acquire necessary interpretation skill, apply variety of different RT codes for accept/ reject of any discontinuity, and prepare reports.

Radiographic Testing (RT) Level I

40 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S1.

The course will cover an introduction to NDT and its different techniques. Become familiar with ASNT-CP-105 and ASNT SNT-TC-1A.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
RT-I	Radiographic Testing Level I	36/4/40
	Introduction/Properties of Materials	6/0/6
	<ul style="list-style-type: none"> This provides the student with the knowledge of the different NDT certifications, history and discovery of ionizing radiation, types of radiation, radioactive materials, related units, and interaction of ionizing radiation with matter. 	
	Generation of Ionizing Radiation	4/0/4
	<ul style="list-style-type: none"> This provides the student with the theoretical knowledge of generating of different ionizing radiation: X-ray and gamma-ray production, different exposure devices, different features of an X-ray tube. 	
	Review of Radiation Safety Principles	4/0/4
	<ul style="list-style-type: none"> This provides the student with the review on the radiation safety principles, different radiation-detection equipment, calculation of radiation area, emissivity, calculation for appropriate shielding and ALARA concept. 	
	Basic Principles of Radiography	2/0/2
	<ul style="list-style-type: none"> This provides the student with the understanding of main definitions in industrial radiography like: density, contrast, sensitivity, definition, exposure, latitude, and factors affecting a radiographic image. 	
	Radiographic Image Formation	6/0/6
	<ul style="list-style-type: none"> This provides the student with the knowledge of the image formation mechanism in industrial radiography, film characteristic curves, density measurement, density different radiographic films, ASTM film classifications, different screens, film processing, dark room requirements and film artifacts. 	
	Geometrical Relationship in Radiography	6/0/6
	<ul style="list-style-type: none"> This provides the student with the knowledge of different factors affecting the geometric unsharpness in a radiographic image, calculation of geometric unsharpness for different radiographic setups, application of image quality indicators (IQI) for radiographic system performance, different types of IQI and radiographic code requirements. 	

Different Radiography Techniques

4/0/4

- This provides the student with an understanding of different radiography techniques for different parts configurations, marking locations, IQI locations, ASME code approach and its requirement.

Radiographic Film Interpretation

4/2/6

- This provides the student with an understanding of different welding processes, different welding discontinuities, casting processes, and different discontinuities in castings. The students in this portion of the course practice viewing different radiographs of welds and call for any discontinuities and acquire necessary interpretation skill.

Hands on with Device

0/2/2

- This provides the student with the knowledge of how to properly setup a radiographic technique, select right IQI, radiographic identifications, process their film and prepare a radiographic report.

Radiographic Testing (RT) Level II

40 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S1.

The course will cover an introduction to NDT and its different techniques. Become familiar with ASNT-CP-105 and ASNT SNT-TC-1A.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
RT-II	Radiographic Testing Level II	32/8/40
	Introduction/Review of Basic Radiographic Principles	4/0/4
	<ul style="list-style-type: none"> This provides the student with a review of basic radiography, review of basic math practice related to radiographic calculation, review of basic definitions in radiography. 	
	Generation of Ionizing Radiation	6/0/6
	<ul style="list-style-type: none"> This provides the student with the theoretical knowledge of generating of different ionizing radiation: X-ray and gamma-ray production, different exposure devices. It provides students with a theoretical knowledge of different features, design of X-ray tubes, focal spot sizes, pinhole technique, micro-focus system, real-time radiography, high-voltage X-ray systems, pulsed X-ray tubes, introduction to computed radiography (CR), digital radiography (DR) and their comparison. 	
	Review of Radiation Safety Principles	4/0/4
	<ul style="list-style-type: none"> This provides the student with the review on the radiation safety principles, different radiation-detection equipment, calculation of radiation area, emissivity, calculation for appropriate shielding and ALARA concept. 	
	Radiographic Image Formation	4/0/4
	<ul style="list-style-type: none"> This provides the student with the knowledge of the image formation mechanism in industrial radiography, latent image, film characteristic curves, different radiographic films, ASTM film classification, RT code recommendation for film selection, density requirement, calculation of exposures to obtain right density on different types of film, multiple-film technique, different screens, effects of scattering on image quality, masking, film processing, dark room requirement, unsatisfactory radiographs, film artifacts, film viewers, and their requirement. 	

Geometrical Relationship in Radiography	6/0/6
<ul style="list-style-type: none"> This provides the student with the knowledge of different factors affecting the geometric unsharpness in a radiographic image, calculation of geometric unsharpness for different radiographic setups, application of image quality indicators (IQI) for radiographic system performance, different types of IQI and radiographic code requirements. 	
Different Radiography Techniques	6/0/6
<ul style="list-style-type: none"> This provides the student with an understanding of radiographic techniques for different part configurations, marking locations, IQI locations, ASME code approach, calculation of necessary exposures to obtain specific density for different parameters using X-ray tubes. Review of the techniques for discontinuity depth measurement, the basic principles of computed tomography (CT), and example of applications. 	
Radiographic Film Interpretation	0/4/4
<ul style="list-style-type: none"> This provides the student with an understanding of different welding processes, different welding discontinuities, casting processes, and different discontinuities in casting. The students in this portion of the course practice to view different radiographs of welds and call for any discontinuities to acquire necessary interpretation skill, and prepare reports. 	
Hands on with Device	0/4/4
<ul style="list-style-type: none"> This provides the student with the knowledge of how to properly setup a radiographic technique, select right IQI, radiographic identifications, process their film and prepare a radiographic report. 	

Ultrasonic Testing (UT) Level I

40 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S1.

The course will cover an introduction to NDT and its different techniques. Become familiar with ASNT-CP-105 and ASNT SNT-TC-1A.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
UT-II	Ultrasonic Testing Level I	32/8/40
	Introduction/General Information	2/0/2
	<ul style="list-style-type: none"> This provides the student with the knowledge of the different NDT certifications, history and development of ultrasonic testing as a NDT technique, advantages, limitations of the method, and basic definitions. 	
	Principle of Acoustics	3/0/3
	<ul style="list-style-type: none"> This provides the student with the theoretical knowledge of mechanical waves propagation in materials, different modes of wave propagation, applications of each specific wave modes in ultrasonic testing, sound velocities in different materials, relationship between wavelength, frequency and material velocity, understand the effects of these parameters on UT sensitivity, resolution and depth of penetration. 	
	Interaction of Sound Waves with Matter	3/0/3
	<ul style="list-style-type: none"> This provides the student with the understanding of acoustic impedance, interaction of sound energy with materials at normal incidence, capability of ultrasonic beams in detection of planar defects, couplants, their required properties and the purpose of application. 	
	Snell's Law and Angle Beam Transducers	4/0/4
	<ul style="list-style-type: none"> This provides the student with the understanding of interaction of ultrasonic beams with materials at angles, refraction and wave mode conversion, application of Snell's Law to calculate the angular relation between beams of ultrasonic in different materials, calculation of the first and second critical angles, and design of angle beam transducers. 	
	Attenuation of Ultrasonic Beams	4/0/4
	<ul style="list-style-type: none"> This provides the student with the understanding of interaction of ultrasonic beams with materials at angles, refraction and wave mode conversion, application of Snell's Law to calculate the angular relation between beams of ultrasonic in different materials, calculation of the first and second critical angles, and design of angle beam transducers. 	

Piezoelectric Effects	2/0/2
<ul style="list-style-type: none"> This provides the student with the knowledge of piezoelectric effect, concepts of standing waves in materials, relationship between the piezoelectric thickness and its fundamental frequency, different piezoelectric materials, natural and artificial, and their particular characteristics in manufacturing ultrasonic transducers. 	
Near Field, Far Field and Beam Spread	4/0/4
<ul style="list-style-type: none"> This provides the student with an understanding of constructive and destructive interferences of multiple sources of vibration, concepts of near, far field and beam spread in ultrasonic transducers, related formulas for calculation of these parameters, side-wall effects in ultrasonic testing. 	
Different Types of Ultrasonic Transducers	1/0/1
<ul style="list-style-type: none"> This provides the student with an understanding of different types of ultrasonic transducers like contact, dual, immersion, focused and special application transducers. Understand the concept of dead zone, different parameters affecting the dead zone in ultrasonic testing, and characteristics of delay line transducers. 	
Ultrasonic Thickness Measurement	4/0/4
<ul style="list-style-type: none"> This provides the student with the knowledge of principles and application of ultrasonic for thickness measurement, the importance of remaining wall-thickness measurement in different structural supports, different features of dual element transducers for UT thickness measurement, concept of doubling, high-temperature UT application, code requirement for using double element transducers on pipes with different diameters, echo- to -echo mode application, and factors affecting the performance of UT- measurement. 	
Damping & Bandwidth of UT-Transducer	1/0/1
<ul style="list-style-type: none"> This provides the student with the knowledge of different factors affecting the geometric unsharpness in a radiographic image, calculation of geometric unsharpness for different radiographic setups, application of image quality indicators (IQI) for radiographic system performance, different types of IQI and radiographic code requirements. 	
Different Ultrasonic Methods and Data Display	2/0/2
<ul style="list-style-type: none"> This provides the student with the knowledge of different ultrasonic methods like: pulse-echo, through-transmission, immersion, their advantages, and limitations of each method. Be familiar with different ultrasonic data displays: A-scan, B-scan, and C-scan. Understand different features of immersion technique. 	
UT Instrumentation & Calibration	2/0/2
<ul style="list-style-type: none"> This provides the student with the knowledge of basic block diagram of an ultrasonic unit, pulse repetition rate, basic controls on a typical ultrasonic flaw detector, basic of ultrasonic units calibration, different ultrasonic reference blocks for straight and angle beam transducers based on ASTM and other UT standards. 	

Hands on with Device

0/8/8

- This provides the student to obtain skills on basic UT calibration, 6-dB defects sizing technique, flaw detection using normal transducers, and UT thickness-measurement.

Ultrasonic Testing (UT) Level II

40 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S1.

The course will cover an introduction to NDT and its different techniques. Become familiar with ASNT-CP-105 and ASNT SNT-TC-1A.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
UT-II	Ultrasonic Testing Level II	24/16/40
	Introduction/General	1/0/1
	<ul style="list-style-type: none"> This provides the student with the knowledge of the different NDT certifications, history and development of ultrasonic testing as a NDT technique, advantages, limitations of the method, and basic definitions. 	
	Review on Principle of Acoustics	3/0/3
	<ul style="list-style-type: none"> This provides the student with the theoretical knowledge of mechanical waves propagation in materials, different modes of wave propagation, applications of each specific wave modes in ultrasonic testing. Review of interaction of ultrasonic waves with materials at normal angle, acoustic impedance, detection of planar defects, couplants, their required properties, an introduction to the principles of air-coupled transducers, and EMAT techniques 	
	Snell's Law and Angle Beam Transducers	3/0/3
	<ul style="list-style-type: none"> This provides the student with the understanding of interaction of ultrasonic beams with materials at angles, refraction and wave modes conversion, application of Snell's Law to calculate the angular relation between beams of ultrasonic in different materials, calculation of the first and second critical angles, and design of angle beam transducers for weld inspection. 	
	Attenuation of Ultrasonic Beams	2/0/2
	<ul style="list-style-type: none"> This provides the student with the knowledge of the attenuation of sound passing through different materials, definition of dB (decibel), calculation of attenuation of ultrasonic beams based on amplitudes ratio, factors affecting the ultrasonic beam attenuation, and 6dB technique for defect sizing. Calculation of attenuation coefficients in materials. 	

Piezoelectricity Effects & Different UT-Transducers	3/0/3
<ul style="list-style-type: none"> This provides the student with the knowledge of piezoelectric effect, concepts of standing waves in materials, relationship between the piezoelectric thickness and its fundamental frequency, different piezoelectric materials, natural and artificial, and their particular characteristics in manufacturing ultrasonic transducers. Provides the student with a review on different types of ultrasonic transducers like contact, dual, immersion, focused and special application transducers. Review the concept of dead zone, and different parameters affecting the dead zone in ultrasonic testing. Review the damping in ultrasonic transducers, effects of damping in transducers bandwidth, shape of the initial pulse, effects of wide and narrow bandwidth transducers on the quality of ultrasonic beams. 	
Near Field, Far Field and Beam Spread	2/0/2
<ul style="list-style-type: none"> This provides the student with an understanding of constructive and destructive interferences of multiple sources of vibration, concepts of near, far field and beam spread in ultrasonic transducers, related formulas for calculation of these parameters, side-wall effects in ultrasonic testing. 	
Different Ultrasonic Methods and Data Display	3/0/3
<ul style="list-style-type: none"> This provides the student with the knowledge of different ultrasonic methods like: pulse-echo, through-transmission, immersion, their advantages, and limitations of each method. Be familiar with different ultrasonic data displays: A-scan, B-scan, and C-scan. Understand different features of immersion technique. Providing an introduction to Phased-Array, TOFD, and long-range guided wave ultrasonic method. 	
UT Instrumentation & Calibration	3/0/3
<ul style="list-style-type: none"> This provides the student with the knowledge of block diagram of an ultrasonic unit, pulse repetition rate, controls on a typical ultrasonic flaw detector, basic of ultrasonic units, calibration, different ultrasonic reference blocks for straight and angle beam transducers based on different UT-standards, calibration procedures for angle beam transducers. 	
UT Weld Inspection	4/0/4
<ul style="list-style-type: none"> This provides the student with the knowledge of different approaches for weld inspection using angle beam transducers, defect sizing, defects location, sensitivity set up, Distance-Amplitude Correction (DAC) curve, AWS approach for accept/reject criteria in weld inspection. Review of origin of discontinuities in casting, welding and forging, be familiar with the discontinuities signature in UT-weld inspection. 	
Hands on with Instrument	0/16/16
<ul style="list-style-type: none"> This provides the student skills on the calibration of angle beam transducers, selection of right angle-beam transducers for weld inspection, establishing DAC curve, 6-dB defects sizing technique, related calculations for UT-weld inspection, and different UT codes requirements. 	

Computed Radiography Testing (CR)

40 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S1.

The course will cover an introduction to NDT and its different techniques. Become familiar with ASNT-CP-105 and ASNT SNT-TC-1A.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
CR	40 Hour Computed Radiography Testing	24/16/40
	Introduction/General	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the knowledge of the different NDT certifications, development of CR methods, comparison with film radiography, advantages, limitations, basic definitions, related terms, and example of images. 	
	Generation of Ionizing Radiation	3/0/3
	<ul style="list-style-type: none"> • This provides the student with the theoretical knowledge of generating of different ionizing radiation: X-ray and gamma-ray production, different exposure devices, different features of an X-ray tube. 	
	Review of Radiation Safety Principles	2/0/2
	<ul style="list-style-type: none"> • This provides the student with the review on the radiation safety principles, different radiation-detection equipment, calculation of radiation area, emissivity, calculation for appropriate shielding and ALARA concept. 	
	Basic Principles of Computed Radiography	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the understanding of main characteristics of digital imaging like: bits, bytes, pixels/voxels, image presentation, artifacts, different image file format, image storages and transmission. 	
	Radiographic Image Formation	4/0/4
	<ul style="list-style-type: none"> • This provides the student with the knowledge of the image formation mechanism in industrial radiography, film versus CR image plates, characteristics of Photostimulable Luminescence (PSL), different types of image plates (IP), image plate life expectancy, IP signal retention, absorption, emission, IP handling, image plate scanning, scanning and image resolution, laser generation, different laser types, function of Photomultiplier Tubes (PMT), image monitor requirements, background lighting, personnel dark adaption and visual acuity, grayscale adjustments, different image enhancement and filtering techniques, image signal-to- noise ratio (SNR), image dynamic range, analog to digital converter (ADC). 	

Geometrical Relationship in Radiography	3/0/3
<ul style="list-style-type: none"> This provides the student with the knowledge of different factors affecting the geometric unsharpness in a radiographic image, calculation of geometric unsharpness for different radiographic setup, application of image quality indicators (IQI) for radiographic system performance, different types of IQI, radiographic code requirement, MTF (modulation transfer function) for determining CR-system performance. 	
Different Radiography Techniques	2/0/2
<ul style="list-style-type: none"> This provides the student with an understanding of different radiography techniques for different parts configurations, marking locations, IQI locations, ASME code requirement, and CR pipe profiling and scale calibration. 	
Radiographic Interpretation	4/2/6
<ul style="list-style-type: none"> This provides the student with an understanding of different welding processes, different welding discontinuities, casting processes, and different discontinuities in casting. The students in this portion of the course practice to view different CR images of welds, call for any discontinuities, code requirement, and acquire necessary interpretation skill. 	
Hands on with Equipment	0/14/14
<ul style="list-style-type: none"> This provides the student with the skill to properly setup a CR system, select right parameters for CR testing of different specimens, handling IP plates, acquire, apply right image filtration, store and interpret images. 	

PROGRAMS

40 Hour Radiation Safety

40 hour radiation safety course that meets the requirements of U.S.NRC and Agreement State Regulations and the U.S. Department of Transportation Title 49 CFR, Part 172.704, is necessary for individuals to work as an industrial radiographer, or as an assistant industrial radiographer.

The course will cover 10 CFR 34 Definitions, Radiation Characteristics, Exposure Devices, Agreement/Non-Agreement States, Radiation Detection, Inverse Square Law, Emergencies and Case Histories.

The individual can be employed with any contractor that performs industrial radiography in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
RS-I	40 Hour Radiation Safety Code of Federal Regulations <ul style="list-style-type: none"> • This provides the student with the knowledge of the contents of the different Codes of Federal Regulations and how they are applied in a practical sense. Radiation Characteristics <ul style="list-style-type: none"> • This provides the student with the theoretical knowledge of ionization, scatter, absorption, accumulated dose, and radiation intensity. Math relating to dose is also taught. Exposure Devices <ul style="list-style-type: none"> • This provides the student with the working knowledge of the different types of exposure devices, the testing, construction and certification; as well as a demonstration of a see through dummy device. (A device not containing radioactive materials.) Agreement/Non-Agreement States <ul style="list-style-type: none"> • This provides the student with the understanding of which states regulate themselves, and which states fall under the jurisdiction of the NRC. Differences in regulations are discussed, as well as different radioactive materials licenses and their differing license conditions. 	35/5/40 5/0/5 10/2/10 4/1/5 2/0/2

Radiation Detection	6/0/6
<ul style="list-style-type: none"> This provides the student with the knowledge of ion chambers, Geiger Mueller detectors, dosimetry, and survey instruments. How to conduct a proper survey is also taught. 	
Inverse Square Law	3/0/3
<ul style="list-style-type: none"> This provides the student with the capability of performing the arithmetic to determine radiation intensity for any source of ionizing radiation at any distance. 	
Emergencies/Case Histories	3/0/3
<ul style="list-style-type: none"> This provides the student with an understanding of what steps to take in an emergency, including who to contact, setting up boundaries, and regulatory notifications. 	
Hands on with Device	0/4/4
<ul style="list-style-type: none"> The students in this portion of the course practice the set up and break down of a dummy device. (A device not containing radioactive materials.) 	
Field Audits	2/0/2
<ul style="list-style-type: none"> This provides the student with the knowledge of how to properly conduct a radiation safety field audit, as well as the regulations regarding field audits. 	

- This course is one week in length. (40 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Upon successful completion of the course, the student will have met the requirements of U.S.NRC and Agreement State Regulations and the U.S. Department of Transportation Title 49 CFR, Part 172.704.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Heat Treat Electrical Level I

The course will cover the principles of Electrical resistance heat treatment.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
HTE-I	Heat Treat Electrical Level I	11/5/16
	Basic Electrical Safety <ul style="list-style-type: none"> • This provides the student with the basic knowledge of Electrical safety as it applies to heat treatment. 	2/1/3
	Methods of Heat Transfer <ul style="list-style-type: none"> • This provides the student with the basic knowledge of the methods in which heat transfers from one media to another. 	1/0/1
	Thermocouples <ul style="list-style-type: none"> • This provides the student with the working knowledge of the different types of thermocouples, attachment methods and placement for proper temperature measurement. 	1/1/2
	Heaters <ul style="list-style-type: none"> • This provides the student with the understanding of heaters and their proper use, placement and construction. 	1/1/2
	Ohms Law <ul style="list-style-type: none"> • This provides the student with the arithmetic to use ohms law in relationship to heating elements used in heat treatment. 	2/0/2
	Pre Weld Heating <ul style="list-style-type: none"> • This provides the student with the knowledge of what is Pre Heating, why it is needed, or required by code, minimum requirements. 	2/1/3
	Post Weld Heat Treatment <ul style="list-style-type: none"> • This provides the student with an understanding of what is Post Weld Heat Treat. What is the purpose of it, how it is accomplished. Minimum code requirements. 	2/1/3

- This course is two days in length. (16 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Upon successful completion of the course, the student will have met the requirements for education in EHT I per TEAM Procedure 33.G.103-S2.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Heat Treat Electrical Level II

40 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S2.

The course will cover the principles of Electrical resistance heat treatment. The mathematics of Ohms Law, Coefficient of thermal expansion, code required heated bands. Proper placement of Thermocouples and Heating elements to ensure proper zone control. Become Familiar ASME Sec I, ASME Sec III, ASME Sec VIII, ASME B31.1, and ASME B31.3. As they relate to Pre and Post Weld Heat Treat.

The individual can be employed with any contractor that performs heat treating or thermal stress relieving in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
HTE-II	Heat Treat Electrical Level II	24/16/40
	Basic Electrical Safety	1/1/2
	<ul style="list-style-type: none"> • This provides the student with the basic knowledge of Electrical safety as it applies to heat treatment. 	
	History of Heat Treatment	1/0/1
	<ul style="list-style-type: none"> • This provides the student with history behind heat treating, as well as how it has developed over the years. 	
	Methods	1/1/2
	<ul style="list-style-type: none"> • This provides the student with the working knowledge of the different methods in which heat treatment is done. 	
	Metallurgy	1/1/2
	<ul style="list-style-type: none"> • This provides the student with a better working knowledge of the metallurgical reasoning behind doing heat treatment. 	
	Ohms Law	2/0/2
	<ul style="list-style-type: none"> • This provides the student with the arithmetic to use ohms law to asses heater load, watt density, and power requirements. 	
	Thermal Expansion	2/0/2
	<ul style="list-style-type: none"> • This provides the student with the arithmetic applied to expansion when material is heated. 	
	Hardness Testing	2/1/3
	<ul style="list-style-type: none"> • This provides the student with an understanding of what Hardness testing is, why it's done, and some of the various methods in which done. 	

Power	2/1/3
<ul style="list-style-type: none"> • This provides the student with the arithmetic to determine primary power requirements, as well as secondary output. 	
Generic Field Procedures	3/2/5
<ul style="list-style-type: none"> • This provides the student that mathematical formulas needed to determine compliance to various codes, as well as all the requirements for each code as they relate to Heat Treat. 	
Process Control	2/1/3
<ul style="list-style-type: none"> • This provides the student the basic understanding of process control and how it applies to control of heat treat equipment. 	
Heaters	1/1/2
<ul style="list-style-type: none"> • This provides the student with the understanding of heaters and their proper use, placement and construction. 	
Insulation	1/0/1
<ul style="list-style-type: none"> • This provides students with information on different types of insulation, their uses and limits. 	
Furnaces	1/0/1
<ul style="list-style-type: none"> • This provides students descriptions, reasons for, applications of and proper set up of furnaces. 	
Isometrics	2/0/2
<ul style="list-style-type: none"> • This provides students an explanation of what an Isometric is, what useful information can be found, and how to draw an Isometric diagram. 	
Vessels	2/0/2
<ul style="list-style-type: none"> • This provides students knowledge on various methods to perform heat treatment on sections or an entire vessel while in place. 	
Workshop	0/7/7
<ul style="list-style-type: none"> • This provides students the ability to put knowledge into practical application with testing and demonstrations. 	

- This course is one week in length. (40 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Upon successful completion of the course, the student will have met the requirements for education in EHT II per TEAM Procedure 33.G.103-S2.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Heat Treat Combustion Level I

16 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S2.

This course will cover the basic understanding of the principles of Combustion heat treatment. Learn basics of fuel types, and differences, Air flow, Thermocouples, Expansion and support.

The individual can be employed with any contractor that performs heat treating or thermal stress relieving in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
HTC-I	Heat Treat Combustion Level I	10/6/16
	Basic Electrical Safety	1/1/2
	<ul style="list-style-type: none"> • This provides the student with the basic knowledge of Electrical safety as it applies to heat treatment. 	
	Combustion	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the basic knowledge of what combustion is, how it happens, how it is maintained, and the byproducts of. 	
	Purpose	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the knowledge of when and why do combustion heating, and the equipment. 	
	Fuels	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the understanding of different fuels available for combustion heating, their differences, advantages, disadvantages. 	
	Power	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the basic knowledge on what power requirements are for combustion heating. 	
	Insulation	1/0/1
	<ul style="list-style-type: none"> • This provides students with information on different types of insulation, their uses and limits. 	
	Thermocouples	1/1/2
	<ul style="list-style-type: none"> • This provides the student with the working knowledge of the different types of thermocouples, attachment methods and placement for proper temperature measurement. 	

Heat Distribution	1/0/1
<ul style="list-style-type: none">This provides the student with the knowledge of how heat is distributed, various devices for distribution, and exhausting.	
Refractory	1/0/1
<ul style="list-style-type: none">This provides the student with basic understanding of Refractory dry out/cures and heat ups.	
Thermal Expansion	1/0/1
<ul style="list-style-type: none">This provides the student with the arithmetic applied to expansion when material is heated.	
Workshop	0/4/4
<ul style="list-style-type: none">This provides students the ability to put knowledge into practical application with testing and demonstrations.	

- This course is two days in length. (16 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Upon successful completion of the course, the student will have met the requirements for education in CHT I per TEAM Procedure 33.G.103-S2.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Heat Treat Combustion Level II

40 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S2.

This course will cover the principles of Combustion science, heat transfer principles, fuel supplies, and differences, air flow, pressure, exhaust, thermocouples, expansion and support. Properties of refractory. Code requirements.

The individual can be employed with any contractor that performs heat treating or thermal stress relieving in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
HTC-II	Heat Treat Combustion Level II	24/16/40
	Safety	2/2/4
	<ul style="list-style-type: none"> • This provides the student with the basic knowledge of electrical and gas safety as it applies to combustion heating. 	
	Fuels	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the understanding of different fuels available for combustion heating, their differences, advantages, disadvantages. 	
	Pressures	2/0/2
	<ul style="list-style-type: none"> • This provides student with a working knowledge on how internal pressures affect the process. 	
	Thermocouples	1/1/2
	<ul style="list-style-type: none"> • This provides the student with the working knowledge of the different types of thermocouples, attachment methods and placement for proper temperature measurement and control the process. 	
	Combustion	2/1/3
	<ul style="list-style-type: none"> • This provides the student with the knowledge of what combustion is, how it happens, how it is maintained, and the byproducts of. 	
	Purpose	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the knowledge of when and why do combustion heating, and the equipment. 	
	Fuels	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the understanding of different fuels available for combustion heating, their differences, advantages, disadvantages. 	

Insulation	1/0/1
<ul style="list-style-type: none"> This provides students with information on different types of insulation, their uses and limits. 	
Heat Distribution	1/0/1
<ul style="list-style-type: none"> This provides the student with the knowledge of how heat is distributed, various devices for distribution, and exhausting. 	
Refractory	1/0/1
<ul style="list-style-type: none"> This provides the student with basic understanding of Refractory dry out/cures and heat ups. 	
Thermal Expansion	1/0/1
<ul style="list-style-type: none"> This provides the student with the arithmetic applied to expansion when material is heated. 	
Process Control	2/1/3
<ul style="list-style-type: none"> This gives the student the basic understanding of process control and how it applies to control of heat treat equipment. 	
Equipment	4/2/6
<ul style="list-style-type: none"> This provides the student with the arithmetic applied to expansion when material is heated. 	
Workshop	0/4/4
<ul style="list-style-type: none"> This gives students the ability to put knowledge into practical application with testing and demonstrations as well as trouble shooting and fault finding. 	

- This course is one week in length. (40 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Upon successful completion of the course, the student will have met the requirements for education in CHT II per TEAM Procedure 33.G.103-S2.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Heat Treat Induction Level I

16 Hour course that meets the educational requirements of TEAM Procedure 33.G.103-S2.

This course will cover the basic understanding of the principles of Induction Heating. Introduction to Magnetic fields, coil shapes. Identification of Induction equipment components, frequencies, and applications.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
HTI-I	Heat Treat Induction Level I	10/6/16
	Basic Electrical Safety	1/1/2
	<ul style="list-style-type: none"> • This provides the student with the basic knowledge of Electrical safety as it applies to heat treatment. 	
	Principle of Induction	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the basic knowledge of the principle in which Induction heats. 	
	Thermocouples	1/1/2
	<ul style="list-style-type: none"> • This provides the student with the working knowledge of the different types of thermocouples, attachment methods and placement for proper temperature measurement. 	
	Heating Coils	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the understanding of materials for making coils, design, limitations. 	
	Heating Cables	1/0/1
	<ul style="list-style-type: none"> • This provides the student with the arithmetic to use ohms law in relationship to heating elements used in heat treatment. 	
	Equipment	2/4/6
	<ul style="list-style-type: none"> • This provides the student with the basic knowledge of Induction heating equipment, how it is used, and limitations of. 	
	Nut Heating	1/0/1
	<ul style="list-style-type: none"> • This provides the student with knowledge on the process of De-nutting. 	
	Bolting	1/0/1
	<ul style="list-style-type: none"> • This provides the student with knowledge of the de-bolting, and bolting processes. • This provides the student with knowledge of the shrink fit removal, and installation processes. 	

- This course is two days in length. (16 hours)

- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Upon successful completion of the course, the student will have met the requirements for education in IHT I per TEAM Procedure 33.G.103-S2.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Leak Repair (LRS) Technician Basic

40 Hour course that meets the educational requirements of the TEAM certification process.

The course will cover the basic principles of on-stream leak repairs including drill and tap, flange repair and enclosure repair techniques. The individual can be employed with any contractor that performs on stream leak repairs in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
LRS-B	Leak Repair (LRS) Technician Basic	18/22/40
	Introduction	1/0/1
	<ul style="list-style-type: none"> • Introductions of Safety Manager, Quality Manager, instructors and students. This shall include building layout and emergency plans. 	
	Terminology	1/0/1
	<ul style="list-style-type: none"> • This provides the student with a basic knowledge of the terminology used for on-stream leak repairs. 	
	Nomenclature	1.5/0/1.5
	<ul style="list-style-type: none"> • This provides the student with an introduction to the various types of pipe, fittings, and valves. 	
	Drill & Tap Techniques	1.5/5/6.5
	<ul style="list-style-type: none"> • This provides the student with the basic drill and tap guidelines, methods and repairs. 	
	Flange Repairs	4/8/12
	<ul style="list-style-type: none"> • This provides the student with the knowledge of wire wrap and flange clamp repair methods. 	
	Enclosures	3/6/9
	<ul style="list-style-type: none"> • This provides the student with the knowledge of the enclosure method of leak repairs. 	
	Injection Equipment	3/3/6
	<ul style="list-style-type: none"> • This provides the student with an understanding how the injection equipment functions, and how to maintain and re-build a hand-held injection gun. 	

Sealant Selection

2/0/2

- This provides the student with knowledge of the shrink fit removal, and installation processes. This provides the student with an introduction to leak repair sealants and how to choose the proper sealant.

Re-Injection

1/0/1

- This provides the student with the basic knowledge of how to re-inject sealant into an existing repair.

- This course is one week in length. (40 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Leak Repair (LRS) Technician Level I

40 Hour course that meets the educational requirements of the TEAM certification process.

The course will cover the basic principles of on-stream leak repairs including drill and tap, flange repair and enclosure repair techniques. It also includes a module on bolting awareness. The individual can be employed with any contractor that performs on stream leak repairs in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
LRS-I	Leak Repair (LRS) Technician Level I	17/23/40
	Introduction	1/0/1
	<ul style="list-style-type: none"> • Introductions of Safety Manager, Quality Manager, instructors and students. This shall include building layout and emergency plans. 	
	Workshop	0/20/20
	<ul style="list-style-type: none"> • This gives the student the ability to put knowledge into practical application. 	
	Safe Bolting	4/3/7
	<ul style="list-style-type: none"> • This provides the student with an introduction safe bolting practices using hydraulic bolt torque equipment. 	
	Technical Repair Review	8/0/8
	<ul style="list-style-type: none"> • This provides a review of drill and tap, flange repair, and enclosure methods along with case studies. 	
	Final Exam	4/0/4
	<ul style="list-style-type: none"> • This provides the student the ability to demonstrate technical knowledge through a comprehensive exam. 	

- This course is one week in length. (40 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Leak Repair (LRS) Technician Intermediate

40 Hour course that meets the educational requirements of the TEAM certification process.

The course will cover advanced principles of on-stream leak repairs including but not limited to critical jobs, line crimping, pressure seal repairs, and valve seat repairs. The individual can be employed with any contractor that performs on stream leak repairs in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
LRS-II	Leak Repair (LRS) Technician Level II	16/24/40
	Introduction	1/0/1
	<ul style="list-style-type: none"> • Introductions of Safety Manager, Quality Manager, instructors and students. This shall include building layout and emergency plans. 	
	Critical Jobs	1/4/5
	<ul style="list-style-type: none"> • This provides the student with a basic knowledge of jobs that are identified as critical in Section 33.G.104 of the TEAM Quality Manual. 	
	Flat Face Flanges	2/0/2
	<ul style="list-style-type: none"> • This provides the student with an knowledge of the repair techniques used on flat face flanges. 	
	Hydrogen Leaks	2/0/2
	<ul style="list-style-type: none"> • This provides the student with the safety and technical guidelines for making repairs on hydrogen leaks. 	
	Exchanger, Boilers, and Turbines	2/8/10
	<ul style="list-style-type: none"> • This provides the student with basic knowledge of how exchangers, boilers and turbines function, and repair techniques used on them. 	
	Adjustable Bar Clamps	4/0/4
	<ul style="list-style-type: none"> • This provides the student with the knowledge of enclosures with insert able endplates. 	
	Pressure Seal Valves, and Valve Seats	2/8/10
	<ul style="list-style-type: none"> • This provides the student with an understanding of different types of pressure seal valve repairs, and valve seat leak repairs. 	
	Line Crimping	2/0/2
	<ul style="list-style-type: none"> • This provides the student with an introduction to line crimping techniques 	

Transformers and Circuit Breakers

2/0/2

- This provides the student with the basic knowledge of transformers, and circuit breakers.

Isolation Repairs

2/0/2

- This provides the student with the basic knowledge of flange isolation repairs.

- This course is one week in length. (40 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Leak Repair (LRS) Technician Level II

40 Hour course that meets the educational requirements of the TEAM certification process.

The course is designed to have the student to demonstrate their knowledge of the advanced principles of on stream leak repairs including simulated critical jobs, line crimps, and adjustable bar clamps. The individual can be employed with any contractor that performs on stream leak repairs in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
LRS-II	Leak Repair (LRS) Technician Level II	16/24/40
	Introduction	1/0/1
	<ul style="list-style-type: none"> • Introductions of Safety Manager, Quality Manager, instructors and students. This shall include building layout and emergency plans. 	
	Workshop	0/24/24
	<ul style="list-style-type: none"> • This provides the student the ability to put knowledge into practical application. 	
	Workshop Review	3/0/3
	<ul style="list-style-type: none"> • This provides the opportunity to discuss the positive and negative safety and quality aspects of the classes shop work. 	
	Technical Repair Review	8/0/8
	<ul style="list-style-type: none"> • This provides a review of advanced repair methods and case studies. 	
	Final Exam	4/0/4
	<ul style="list-style-type: none"> • This provides the student the ability to demonstrate technical knowledge through a comprehensive exam. 	

- This course is one week in length. (40 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Hot Tap (HTS) Technician Level I

40 Hour course for Line Stops up to and including 12" in size and Freeze Stops.

The course will cover equipment setup/breakdown, measurements and basic tapping machine specific operation. The course will also provide basic instruction to setup/breakdown and operation for a Freeze Stop. The individual can be employed with any contractor that performs Line Stops, Hot Stops, Insert Valves and/or angle taps in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
HTS-I	Hot Tap (HTS) Technician Level I	17/23/40
	M-18/28 and T-101	3/7/10
	<ul style="list-style-type: none"> This provides the student with basic knowledge to setup/breakdown, measurements and basic operation/maintenance of the M- 18/28 and T-101, to perform a hot tap smaller than 4" in size. 	
	M-42/66 and 660/760TM	3/6/9
	<ul style="list-style-type: none"> This provides the student with basic knowledge to setup/breakdown, measurements and basic operation/maintenance of the M- 42/66 and 660/760TM, to perform a hot tap up to and including 12" in size. 	
	Freeze Stop	3/4/7
	<ul style="list-style-type: none"> This provides the student the basic knowledge to perform a Freeze Stop to isolate a section of pipe. 	
	C1-25/C1-36 Tapping Machine	3/6/9
	<ul style="list-style-type: none"> This provides the student with basic knowledge to setup/breakdown, measurements and basic operation/maintenance of the C1- 25/C1-36 tapping machine, to perform a hot tap up to and including 12" in size. 	
	Insert Valve	5/0/5
	<ul style="list-style-type: none"> This provides the student with instruction to properly install an Insert Valve onto and existing pipeline. 	

- This course is one week in length. (40 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Upon successful completion of the course, the student will have the basic knowledge to perform a hot tap up to and including 12" in tap size and safely perform a Freeze Stop using liquid nitrogen as a freeze medium.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Hot Tap (HTS) Technician Level II

40 Hour course for Line Stops up to and including 12" in size.

The course will cover the basic skills required to successfully complete a Line Stop/Hot Stop as means of temporary isolation, installing an Insert Valve into a pipeline for a permanent means of isolation and successfully completing an angle tap.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
HTS-II	Hot Tap (HTS) Technician Level II	22/18/40
	Line Stop	5/13/18
	<ul style="list-style-type: none"> • Introductions of Safety Manager, Quality Manager, instructors and students. This shall include building layout and emergency plans. 	
	Hot Stop	5/0/5
	<ul style="list-style-type: none"> • This gives the student the ability to put knowledge into practical application. 	
	Completion Plugs	5/5/10
	<ul style="list-style-type: none"> • This provides the opportunity to discuss the positive and negative safety and quality aspects of the classes shop work. 	
	Insert Valve	3/0/3
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to setup/breakdown, measurements, hot tap and installing the Insert Valve. 	
	Final Exam	4/0/4
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to setup/breakdown, measurements and completing an angle tap. 	

- This course is one week in length. (40 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Upon successful completion of the course, the student will have the required knowledge to complete a line stop, hot stop, Insert Valve and/or an angle tap.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Hot Tap (HTS) Technician Advanced

The 40 hour course will cover basic installation of Inflatable Bag Stops, Hi-Stops and will provide basic knowledge of folding head line stops, pressure balanced machines and hydraulic power units. The individual can be employed with any contractor that performs Inflatable Bag Stops and/or Hi-Stops in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
HTS-A	Hot Tap (HTS) Technician Advanced	24/16/40
	Inflatable Bag Stops	8/8/16
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to setup/breakdown, measurements and successfully completing an Inflatable Bag Stop. 	
	Hi-Stop	5/0/5
	<ul style="list-style-type: none"> • This provides the student with the basic knowledge to setup/breakdown, measurements and successfully completing a Hi-Stop. 	
	Folding Head Line Stops	5/5/10
	<ul style="list-style-type: none"> • This provides the student with the basic knowledge to setup/breakdown, measurements and successfully completing a folding head line stop. 	
	Pressure balanced machine/Hydraulic power units	3/0/3
	<ul style="list-style-type: none"> • This provides the student with the basic knowledge of the pressure balanced machines and hydraulic power units. 	

- This course is one week in length. (40 hours)
- The student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Field Machining (FMS) Technician Level I

The 40 Hour course will cover basic processes and equipment related to Field Machining. The individual can be employed with any contractor that performs Field Machining in any number of settings, i.e.: power plants, refineries, pulp and paper. The individual can be employed with any contractor that performs Field Machining in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
FMS-I	Field Machining (FMS) Technician Level I	12/28/40
	Flange Facing OD Mount Machine	1.5/5.5/7
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to perform machine tool setup, alignment, facing operation and breakdown. 	
	Flange Facing ID Mount Machine	2/5/7
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to perform machine tool setup, alignment, facing operation and breakdown. 	
	Pipe Cutting & Beveling	2/5/7
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to perform machine tool setup, alignment, severing/beveling operation and breakdown. 	
	Pipe Counter Boring and Transition Beveling	1/1/2
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to perform machine tool setup, alignment, counter bore/transition bevel operation and breakdown. 	
	Cutting Tool Geometry	1/1/2
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to perform cutting tool grinding. 	
	Cutting Feeds & Speeds	1/1/2
	<ul style="list-style-type: none"> • This provides the student with basic knowledge of machined finishes and cutting tool limitations. 	
	Hole Drilling & Tapping	.5/1.5/2
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to perform machine tool setup, alignment, drilling/ tapping operation and breakdown. 	
	Stud Drilling & Removal	.5/1.5/2
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to perform machine tool setup, alignment, stud drilling/removal operation and breakdown. 	

Keyway Machining

.5/1.5/2

- This provides the student with basic knowledge to perform machine tool setup, alignment, keyway cutting operation and breakdown.

Bench Grinder Tool Sharpening

2/4/6

- This provides the student basic knowledge and hand skills to perform cutting tool grinding/tool sharpening.

- This course is one week in length. (40 hours.)
- The FMS Level I student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Upon successful completion of the course, the student will have the required knowledge to complete ID and OD mount flange facing, pipe cutting and beveling, pipe counter boring and transition beveling, hole drilling and tapping, stud drilling and removal, keyway cutting and cutting tool sharpening.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Field Machining (FMS) Technician Level II

The 40 Hour course will cover increasingly advanced processes and equipment related to Field Machining, as well as Bore Seal Flange Machining and Large Hole Drilling and tapping. The individual can be employed with any contractor that performs Field Machining in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
FMS-II	Field Machining (FMS) Technician Level II	8/32/40
	Base Plate Milling	1/9/10
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to perform machine tool setup, alignment, milling and measuring operations. 	
	Paragon Level Operation	1/3/4
	<ul style="list-style-type: none"> • This provides the student with basic knowledge of setup and operation of a paragon tilting level to measure machinery elevations. 	
	RTJ Flange Machining	2/9/11
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to perform machine tool setup, alignment, and RJT groove measuring/machining operations. 	
	Bore Seal Flange Machining	2/7/9
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to perform machine tool setup, alignment, and bore seal flange measuring / machining operations 	
	Cutting Feeds & Speeds	1/1/2
	<ul style="list-style-type: none"> • This provides the student with basic knowledge of machined finishes and cutting tool limitations. 	
	Large Hole Drilling & Tapping	1/3/4
	<ul style="list-style-type: none"> • This provides the student with basic knowledge to perform machine tool setup, alignment, drilling/ tapping operation and breakdown. 	

- This course is one week in length. (40 hours.)
- The FMS Level II student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Upon successful completion of the course, the student will have the required knowledge to accomplish base plate milling, paragon level operations, RTJ flange machining, bore seal flange machining and large hole drilling and tapping.
- Any prior education or training must be evaluated before any credit would be applied to this course.

Field Machining (FMS) Technician Advanced

The 40 Hour course will cover increasingly advanced processes and equipment related to Field Machining, as well as Bore Seal Flange Machining and Large Hole Drilling and tapping. The individual can be employed with any contractor that performs Field Machining in any number of settings, i.e.: power plants, refineries, pulp and paper.

Subject #	Subject Title	Course Time Hours Lec/Lab/Total
FMS-A	Field Machining (FMS) Technician Advanced	6/34/40
	Line Boring	2/16/18
	<ul style="list-style-type: none"> • This provides the student with advanced knowledge to perform boring machine setup, optical alignment and preform boring operations 	
	Optical Telescope	1/5/6
	<ul style="list-style-type: none"> • This provides the student with advanced knowledge to perform optical telescope setup and alignments. 	
	Shaft Turning	2/12/14
	<ul style="list-style-type: none"> • This provides the student with advanced knowledge to perform machine tool setup, alignment and shaft turning operations. 	
	Cutting Feeds & Speeds	1/1/2
	<ul style="list-style-type: none"> • This provides the student with basic knowledge of machined finishes and cutting tool limitations. 	

- This course is one week in length. (40 hours.)
- The FMS Advanced student must pass with a composite score of at least 70% to be awarded a certificate of completion.
- Upon successful completion of the course, the student will have the required knowledge to accomplish line boring operations utilizing boring and optical alignment equipment. Additionally, students will have the required knowledge to accomplish shaft turning operations utilizing end mounted and mid shaft portable machine tools.
- Any prior education or training must be evaluated before any credit would be applied to this course.

GRADING SYSTEM

Numeric Grade	Certificate of Completion
90 - 100	Yes
80 - 89	Yes
70 - 79	Yes
60 – 69	No
Below 60	No

GRADING PERIOD

A grading period shall be considered the length of the TEAM Technical School course.

PROGRESS STANDARDS

A student earning a grade of 70% or higher on the final exam at the end of the course, has a composite score of at least 70%, who has completed all course assignments and had 100% attendance will receive the course completion certificate.

ATTENDANCE POLICY

If a student is absent for any of the scheduled course, the student's enrollment in the course will be terminated.

A student whose enrollment was terminated for violation of the attendance policy may not re- enroll before the start of the next progress evaluation period. This provision does not circumvent the approved refund policy.

STUDENT CONDUCT EXPECTATIONS

Students on the TEAM Technical School campus are expected to behave in a manner that will create a safe and orderly academic environment for themselves and others. Students found in violation of these conduct expectations will be subject to disciplinary action which may include written warning, suspension, dismissal, and/or referral to law enforcement officials. Any involvement with law enforcement will be automatic dismissal. Below is a partial list of inappropriate behaviors that will be subject to disciplinary action. This list is not all-inclusive.

1. Academic dishonesty, including any form of plagiarism, cheating, falsification of records, or collaboration with others to defraud
2. Actions that disrupt teaching, learning, administration, or interfere with the rights of others
3. Non-compliance with the directives of school faculty and staff
4. Violation of written policies, rules, or procedures
5. Theft of any kind, and related behaviors such as possessing stolen property or using the property of others without their permission.
6. Damage to property or destruction of property.
7. Creation of unsafe conditions.
8. Carrying out a false alarm or creating an emergency such as a fire or a bomb threat.
9. Hurting others, threatening others, or engaging in behavior that may result in harm to others.
10. Selling, consuming, and/or possessing alcoholic beverages

11. Possessing or using drugs not prescribed for the student by a physician; selling any drugs; possessing or using illegal drugs or narcotics
12. Possessing a firearm or other deadly or dangerous weapons such as knives, knuckles, clubs, baseball bats, and hammers while on the property of the school or in any part of the school building.
13. Sexual harassment in any form by students or any member of the administration, faculty, or staff is prohibited. The school is committed to creating and maintaining an environment for all school personnel and students that is free of harassment, forced sexual activity, or any other sexual communication or conduct that interferes with performance in the classroom or the workplace.

Sexual Harassment Defined

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

1. submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment,
2. submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individuals, or
3. such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment.

Re-enrollment after Dismissal for Violation of Student Conduct Expectations

After a six-week period has elapsed, a student whose enrollment was terminated for violation of student conduct expectations that did not result in the involvement of law enforcement officials, will have one opportunity for re-enrollment within the next 12 calendar months.

GRADUATION REQUIREMENTS

A Certificate of Completion will be awarded to each student who completes all the assignments of the course of study, has 100% attendance, and has a composite score in the class of no less than 70%.

A student who has completed the course of study but does not meet course completion requirements can contact the registrar for one opportunity to repeat the class that had an unsatisfactory grade, in a subsequent term beginning no later than 12 calendar months after the end of the term in which the student was originally enrolled. There will be no additional administrative or tuition fees charged for students who exercise this option; however, there may be additional fees for books, supplies, and fees.

PLACEMENT SERVICES

Job placement assistance is available on a limited basis for any student awarded a Certificate of Completion. While the TEAM Industrial Services Technical School takes great pride in the graduates working in the field in this community and beyond, neither the school, its board, administration nor any faculty or staff member can guarantee employment.

STUDENT COMPLAINTS

(Grievance Procedure)

Complaints are defined as any student concern regarding the school programs, services or staff. A student who has a concern about a school-related issue is encouraged to schedule a conference with the school director to find resolution. If an issue is not resolved to a student's satisfaction through the

conference, the student can file a formal complaint in writing with the school director; who will formally investigate the complaint, take appropriate action, and provide a written response to the student by the 10th business day after the formal written complaint is received by member of the school faculty or staff. Note: a conference with the director is not required prior to a student filing a formal written complaint.

Notification of Complaint to the Texas Workforce Commission:

A student who is dissatisfied with the school director's response can file a complaint with the Texas Workforce Commission:

Texas Workforce Commission
Career Schools and Colleges, Room 226T 101 East 15th Street
Austin, Texas 78778-0001
Phone: (512) 936-3100
Information on filing a complaint with TWC can be found on TWC's Career Schools and Colleges Website at texasworkforce.org/careerschools.

READMISSION

Timelines and conditions for re-enrollment are described under the following titles of this catalog: Attendance Policy, Grading Policy/Incomplete, Course Completion Requirements, Academic Probation and Student Conduct Expectations. Students wishing to be readmitted and enrolled should contact the school registrar (281-388-4450).

If the student enrolls to repeat a subject that is no longer offered, the school director will select an appropriate substitute to meet the program requirement.

True and Correct Statement

I hereby certify that the statements and information in this catalog are true and correct to the best of my knowledge and belief.



Ted Vidimos
TEAM Technical School Director

Texas Workforce Commission
Certificate of Approval
Career Schools and Colleges
Team Technical School
(S4801)

200 Herman Drive
Alvin, TX 77511

has met the legal requirements prescribed in Chapter 132, Texas Education Code, and is hereby authorized to operate as outlined in the application submitted in accordance with Section 132.052 under the provisions of that act for the period specified below. Continued approval will be subject to compliance with the legal requirements for career schools and colleges and with the application submitted to the Texas Workforce Commission as the official school catalog. The approved courses of instruction are listed as a separate attachment.

This certificate is issued to the owner named below. This certificate is the property of the State of Texas and shall not be transferred to another owner.



Effective Date of Issue: September 11, 2019
Date of Expiration: September 10, 2020
Issued on: October 02, 2019
Issued to: Team Technical School, LLC


Edward Serna, Executive Director