



ISO 9001:2008 Certified

***CANDIDATE INFORMATION  
BULLETIN for CERTIFICATION EXAMINATIONS***

- ✓ **STAR Fire Sprinklerfitting**
- ✓ **STAR Steamfitting/Pipefitting**
- ✓ **STAR Plumbing**
- ✓ **STAR Residential-Light  
Commercial HVAC**
- ✓ **STAR Commercial Refrigeration**



# Table of Contents

## **I. GENERAL INFORMATION**

About NITC  
About S.T.A.R. Mastery Personnel Certification Program  
Examination Development  
Application Procedures  
Table of Fees  
Examination Scheduling for Groups  
PSI Computer-Based Testing Information  
Examination Scores  
Examination Site Information  
Special Requests for Taking The Examination  
NITC No-Show, Cancellation and Refund Policy  
Question Comment/Challenge Procedure  
Information Release Policy  
Appeals Procedure  
Issuance of Wall Certificates and Certification Cards  
How to Obtain the NITC Rules and Procedures Document

## **II. STAR FIRE SPRINKLERFITTING MASTERY**

Scope Of Work  
Examination Qualification Requirements  
About The Examination (Content Outline)

## **III. STAR STEAMFITTING/PIPEFITTING MASTERY**

Scope Of Work  
Examination Qualification Requirements  
About The Examination (Content Outline)

## **IV. STAR PLUMBING MASTERY**

Scope Of Work  
Examination Qualification Requirements  
About The Examination (Content Outline)

## **V. STAR RESIDENTIAL-LIGHT COMMERCIAL HVAC MASTERY**

Scope Of Work  
Examination Qualification Requirements  
About The Examination (Content Outline)

## **VI. STAR COMMERCIAL REFRIGERATION MASTERY**

Scope Of Work  
Examination Qualification Requirements  
About The Examination (Content Outline)

## **VII. RECERTIFYING YOUR STAR MASTERY CERTIFICATION**

### **Important note to examination candidates:**

*The information contained in this document is important. Please read it carefully.*



## I. GENERAL INFORMATION

### **ABOUT NITC**

National Inspection Testing Certification (NITC) is a third-party provider of certification services to the Piping Industry. NITC tests and certifies personnel in the Plumbing, Piping, HVACR and Related Piping Industries. NITC is ISO 9001:2008 certified and offers a large number of personnel certifications that include but are not limited to Journey and Mastery Levels, Medical Gas, IAPMO Voluntary Plumbing and Mechanical Inspector, and assorted City, County and State Government requirements. NITC also specializes in Test Development and Test Administration. NITC is non-discriminatory in accepting applications and issues certifications to candidates without regard to membership in any trade, association, union, etc. NITC complies with Federal and State ADA regulations.

### **ABOUT STAR MASTERY CERTIFICATION PROGRAM**

For many years the certification of personnel in the skilled trades was voluntary except where required by an employer or by the local jurisdiction. However, new government and industry requirements continue to emerge asking such personnel to document their qualifications through written examination and/or practical testing. NITC provides personnel certification which meets this need while holding to the highest standards of modern test practice.

Our STAR Mastery certification program is nationally recognized and is the result of years of effort by industry experts. The subject matter experts who participated in the development our certifications have thousands of hours of experience in their field. The goal of these experts is improving the safety of those who come into contact as either industry workers, or as a consumer.

### **EXAMINATION DEVELOPMENT**

The first step in the development of an objective test is to identify the knowledge necessary for the certification holder. This knowledge was identified by a team of industry experts assembled by The Technology Transfer Center at Ferris State University. The DACUM process of Job and Task Analysis was employed to develop the examination blueprint which became the basis for the content of this examination. The passing scores were also determined by these subject matter experts using psychometrically accepted standard-setting methodology.

## APPLICATION PROCEDURES

Candidates must complete an application in advance and return it to the NITC office. In addition to information that verifies eligibility, the application contains a code of conduct that certified persons must abide by and the regulations for suspension or withdrawal of the certification. All fees must be paid before results are released.

### TABLE OF EXAMINATION FEES

#### INITIAL CERTIFICATION

Certification examination with a proctor (Group processing may be applied)		\$136. <sup>00</sup>
Computer-based Certification examination with a proctor (Group processing may be applied)		\$136. <sup>00</sup>
Computer-based multiple-choice examination at PSI center (Includes Processing fee of \$57)		\$193. <sup>00</sup>
RETEST multiple-choice examination (Group processing fees may be applied)		\$136. <sup>00</sup>
RETEST computer-based multiple-choice examination with a proctor (Group processing fees may be applied)		\$136. <sup>00</sup>
RETEST computer-based multiple-choice examination at PSI center (Includes Processing fee of \$57)		\$193. <sup>00</sup>
PSI test center cancellations and rescheduling fee (if cancellation occurs with less than 48 hours' notice)		\$ 57. <sup>00</sup>
Processing fee for scheduled group Initial Certification examinations involving less than ten (10) examinees.	paper pencil examinations	\$250. <sup>00</sup>
	computer-based examinations	\$150. <sup>00</sup>

#### RECERTIFICATION FEES

Recertification by mail (pencil paper test)		\$ 84. <sup>00</sup>
Recertification Test online at TestTrac.com		\$ 84. <sup>00</sup>

#### OTHER FEES

For duplicate of the wall certificate		\$ 15. <sup>00</sup>
For duplicate of the wallet-sized photo ID card		\$ 15. <sup>00</sup>

All fees due must be submitted with a completed application and all fees must be paid before results are released.

## EXAMINATION SCHEDULING FOR GROUPS

Examinations may be scheduled and administered at specific times, dates and locations as requested by NITC clients. To request an examination for a group of ten (10) or more candidates must submit an examination request form to NITC at least three (3) weeks in advance along with the completed applications. The Instructors name and certification number must be included on the request form.

For groups of less than ten (10) candidates a processing fee will be added. See Table of Fees. All fees must be paid prior to the examination and processing fees are non-refundable. (See NITC's No-show, Cancellation, and Refund Policy.) It is the responsibility of the instructor or the requesting entity to notify each applicant of the scheduled examination.

Similar requirements apply for scheduling group sessions for recertification examinations, except the minimum group size is eight (8) candidates. For groups of less than eight additional processing fees apply.

See the Table of Fees. Please contact NITC for more information about examination scheduling.

## **COMPUTER-BASED TESTING INFORMATION**

Computer-based testing at PSI centers is available for individuals who do not choose to attend the examination scheduled by their training agency at the conclusion of the course. There are more than 340 test center network sites throughout the United States where the certification examination or recertification examination can be taken on a date, time, and place that is convenient for the candidate. The content of a computer-based multiple-choice examination is identical to that of the pencil and paper multiple-choice examination.

To locate a PSI TESTING center, go to <https://candidate.psiexams.com/testdate/testdate.jsp> or go to [www.nationalitc.com](http://www.nationalitc.com). An email address must be included on this form. Login information for scheduling the examination date and time will be provided via email from Testrac/PSI Registration. **Registration Form will not be processed until payment has been received.**

For any examination scheduled at a PSI testing center, cancellation and rescheduling must be made at least 48 hours prior to the assigned time or date or a rescheduling fee will be assessed.

## **EXAMINATION SCORES**

For computer-based examinations, results are provided to the examinee at the completion of the examination. For NITC-proctored paper-and-pencil examinations results will be sent within 30 days to the training entity or instructor originally arranging the test event.

### **Important note about NITC pencil paper examinations:**

*The pencil paper examinations are electronically scored after being returned to the offices of NITC it is important to record all on the scannable answer sheet provided at the testing site. Answers marked in any test booklet will NOT be counted toward a candidate's score.*

## **EXAMINATION SITE INFORMATION**

Candidates will be required to sign a test site roster and show photo identification to the proctor at the test site on the day of the examination administration. Acceptable forms of photo identification are a passport, a government-issued driver's license or state ID, or a work identification card with photo. Candidates without appropriate identification documents will NOT be admitted to take the certification examination.

All electronic devices are prohibited. **No PDAs, cellular telephones, or any other types of devices that record or send data are allowed to be used during the examination.**

*CLOSED BOOK EXAMINATIONS: It is suggested that examination candidates bring a hand held pencil sharpener and an eraser. No reference books, standards, code books, handbooks, computers, notebooks, audio/visual devices, recorders, illustrated books, notes, drawings or papers of any kind will be allowed in the testing facility.*

*OPEN BOOK EXAMINATIONS: If you will be taking a computer-based OPEN book examination, writing instruments will not be permitted. Please bring only the permitted references. No handbooks, computers, notebooks, audio/visual devices, recorders, illustrated books, notes, drawings or papers of any kind will be allowed in the testing facility. Remove all extraneous papers from reference books prior to entering the testing facility.*

### **SPECIAL REQUESTS FOR TAKING THE EXAMINATION**

Requests for special/emergency examinations will be accommodated by NITC if possible. Candidates who have a disability which restricts their ability to take an examination under the standard conditions may request special testing arrangements. Such requests must accompany the application, and must be received by the normal application closing date. The request must indicate the nature of the disability and the special accommodations needed. Verification by a licensed medical professional is required for both the disability, and the need for special accommodations.

Additional information on special accommodations can be found in Section XVI of the [NITC's Rules and Procedures Manual](#), available for download from our web site at [www.nationalitc.com](http://www.nationalitc.com).

### **NITC NO-SHOW, CANCELLATION and REFUND POLICY**

**CREDITS:** NITC will issue a credit to no shows, cancellations, etc. The credit, redeemable for six months, will be issued to the group or individual for the next available examination. It is the responsibility of the group or individual to keep track of their credit and its expiration date in six months.

*Example: A group requested 30 examinations and only 27 candidates showed up. A credit for 3 candidates will be given to the group for the next examination within a six month period.*

**REFUNDS:** Requests for refunds must be received in writing. Refunds will be given only upon approval from the Executive Vice President. Partial refunds will be \$55.00 on the one-hundred question examinations, and 50% of the fee for all other examinations. Full refunds will only be given as a result of uncontrollable events such as severe weather, airline flight cancellations, etc.

Candidates withdrawing or canceling after the deadline, or not sitting for the examination, will forfeit all application fees and will NOT receive a refund.

### **QUESTION COMMENT/CHALLENGE PROCEDURE**

Challenge forms provided by the proctor may be used for both comments and question challenges. At the conclusion of the examination, a candidate may comment on the site, the process, or on any question. Comments and suggestions are always welcome. To challenge a question or questions, a candidate must request the question challenge form from the proctor; complete the form providing as many details as possible. The completed form must be turned in to the proctor before leaving the room. An examinee may file a question challenge at a later time as long as it is in writing, identifies the question being challenged, contains a separate and complete statement of each ground upon which the challenge is based, and is received by NITC not later than 30 days from the receipt of examination score. Additional details on the process are provided in [NITC's Rules and Procedures Manual](#), available at NITC's web site.

### **INFORMATION RELEASE POLICY**

For computer-based examinations, results are provided to the examinee at the completion of the examination. For NITC-proctored paper-and-pencil examinations the results will be provided within 30 days to the examinee, training entity, or to the instructor who originally arranged the test event.

Except as outlined in this section, NITC will NOT release any information regarding a candidate's examination score or application to other entities, including employers and regulatory agencies.

The Name and State of residence of those persons holding a current certification will be posted on the NITC website. This service allows for verification of the status of person's certification. A candidate's personal information will not be included on the NITC website.

### **APPEALS PROCEDURE**

Candidates may appeal the score of an examination. Appeals shall be filed in writing to the NITC office via U.S. Mail, facsimile, or E-mail no later than thirty (30) days from the date candidate receives the score. Appellants will be notified in writing of the decision by the certification committee. The complete NITC appeals procedure can be found in the [NITC's Rules and Procedures Manual](#).

## **ISSUANCE OF WALL CERTIFICATES AND CERTIFICATION CARDS**

Upon successful completion of this certification examination, a certificate and a congratulations letter will be issued. This certification is valid for five (5) years from issuance. Certification holders are responsible for keeping their certification current. ***NOTE: IN SOME CASES A WALL CERTIFICATE AND/OR WALLET CARD WILL BE ISSUED BY A CITY, COUNTY, STATE, INDUSTRY ASSOCIATION, OR UNION.***

## **HOW TO OBTAIN THE NITC RULES AND PROCEDURES DOCUMENT**

The Medical Gas Installer Certification is governed by the [NITC's Rules and Procedures Manual](#). This document goes into greater detail on a number of the topics covered in this examination information bulletin. Topics covered include:

- Guidelines for Use of Certification Mark
- Re-issuance of Lost Certification Card
- Issuance of Certification Cards and Wall Certificates
- Proctor Information
- Challenge of Questions and Appeals Procedure
- Conflict of Interest and Confidentiality Statements
- Notification to Certified Personnel and Stakeholders of Updated
- Correction of Material / Technical Error in Examinations
- NITC ADA Policy
- NITC Certification Scheme Committee

Copies of [NITC's Rules and Procedures Manual](#) are available on the NITC website at [www.nationalitc.com](http://www.nationalitc.com) and also upon request from NITC Headquarters.



## II. STAR FIRE SPRINKLERFITTING MASTERY

### SCOPE OF WORK: STAR FIRE SPRINKLERFITTING MASTERY

A STAR Fire Sprinklerfitting Mastery certification candidate is a qualified individual who can demonstrate mastery of the trade and will be skilled and experienced in operations, planning, blueprint reading, safety, and the practical installation, repair, and servicing of fire sprinkler systems.

Installation repair and service of fire sprinkler systems includes the design, installation, alteration (retrofit), repair, service and maintenance of fire sprinkler water supply systems and all system components; spacing, location, and positioning of sprinklers for wet pipe, dry pipe, reaction and deluge systems, and specialty systems in residential, commercial and industrial settings.

A qualified Master Fire Sprinklerfitter may perform these tasks alone, or through the supervision of other individuals.

It is expected that the STAR Mastery test candidate is a technician who has completed a UA training program or equivalent, and/or has five years of experience in the industry.

### EXAMINATION QUALIFICATION REQUIREMENTS

Candidates must provide five (5) years of documented work experience installing and servicing of fire sprinkler systems, or provide documentation of being in the fifth (5<sup>th</sup>) year of a fire sprinkler training program involving the installation and servicing of fire sprinkler systems.

### ABOUT THE EXAMINATION

The STAR Fire Sprinklerfitting Mastery examination is an open book exam consisting of two hundred (200) multiple-choice questions. Examinees must answer at least 164 questions (82.00%) correctly to pass this examination. Most of the content of this exam is based on the following NFPA documents and examinees will be permitted to bring these documents as reference material to the place of the exam.

1. NFPA 13 Installation of Sprinkler Systems (2002 Edition)
2. NFPA 25 Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems (2002 Edition)
3. NFPA 20 Standard for the Installations of Stationary Pumps for Fire Protection (2003 Edition)

A good understanding of these NFPA documents is necessary for passage of this exam. The examinee should be thoroughly familiar with the code language found in them, and should be prepared to answer specific questions based on their content. A content outline is provided below as an aid in preparing for the exam.

This open book examination is comprehensive. It is designed to test the knowledge of the experienced technician. It is not realistic to expect that inexperienced technicians will be able to pass this examination based solely on the information contained in the NFPA references. The exam may also cover knowledge not contained in the NFPA manuals.

**Examination Name:** STAR Fire Sprinklerfitting Mastery Certification Examination

**Description:** Open book exam consisting of 200 multiple-choice questions

**Passing grade:** 82.00% (164 correct)

**Total time allowed:** Two and one half (2 ½) hours

Percent of Exam	Domain Area	Questions	Related Reference for Study
14%	Water supply systems	1 thru 28	NFPA 13, 20
20%	System Components	29 thru 68	NFPA 13, 25
16%	Spacing, Location, and Positioning of Sprinklers	69 thru 101	NFPA 13
11%	Wet Pipe Systems	102 thru 23	NFPA 13, 25
8%	Dry Pipe Systems	124 thru 140	NFPA 13, 25
10%	Reaction and Deluge Systems	141 thru 161	NFPA 13, 25
11%	Specialty Systems	162 thru 183	NFPA 13
9%	Inspection	184 thru 201	NFPA 13, 20, 25
<b>100%</b>	<b>TOTAL</b>	<b>201</b>	

An NITC-approved proctor administers the multiple-choice examination. Candidates are notified of a pass or fail result in writing by NITC, the training agency, or by the association that requested the examination.

Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled. Candidates may re-take their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in Section I: [GENERAL INFORMATION](#).

### RECERTIFICATION OF THIS CREDENTIAL

This certification is valid for five (5) years from issuance. Recertification can be accomplished by successfully passing a multiple-choice open book examination which contains fifty questions.

Certified individuals who have not recertified their certification within thirty days after the expiration date must take the proctored multiple-choice examination.

#### Important note about recertification:

*This certification is valid for five (5) years from issuance.*

*Certification holders are responsible for keeping their certification current. NITC must be notified of any change in address. Changes may be made online, by telephone, or by mail.*

Additional information is contained in this Candidate Bulletin in **Section VII. [Section VII. "RECERTIFYING YOUR STAR MASTERY CERTIFICATION."](#)**

### III. STAR STEAMFITTING/PIPEFITTING MASTERY

#### SCOPE OF WORK: STAR PIPEFITTING MASTERY

A STAR Pipefitting Mastery certification candidate is a qualified individual who can demonstrate mastery of the trade and will be skilled and experienced in fabricating, preparing, rigging and installing pipes, tubing and equipment by following plans, specifications, SOP's and standard pipefitting practices in order to comply with local and jurisdictional codes and help to complete the job/project safely, on schedule and to the satisfaction of the customer.

A qualified pipefitter may perform these tasks alone, or through the supervision of other individuals.

It is expected that the STAR Pipefitting Mastery examination candidate is a technician who has completed a UA training program or equivalent, and/or has five years of experience in the industry.

#### EXAMINATION QUALIFICATION REQUIREMENTS

Candidates must provide five (5) years of documented work experience installing and servicing of piping systems or provide documentation of being in the fifth (5<sup>th</sup>) year of a piping systems training program involving the installation and servicing of piping systems.

#### ABOUT THE EXAMINATION

The STAR Pipefitting Mastery examination is a closed book exam consisting of two hundred (200) multiple-choice questions. Examinees must answer at least 164 questions (82%) correctly to pass this examination. The STAR Pipefitting Mastery examination is comprehensive. It is designed to test the knowledge of the experienced pipefitter. It is not realistic to expect that inexperienced pipefitters will be able to pass this examination based solely on the information contained in UA textbooks. It is recognized that even the best pipefitter does not work in all areas of the service industry. Further, some knowledge can be forgotten through lack of use. As such, it is recommended that the candidate study a number of UA textbooks in preparing for the STAR exam. For those who do not have access to UA training materials, pipefitting manuals that are available through industry sources can serve as references for this exam. Please refer to the list of subject matters covered when identifying appropriate reference materials, manuals, or training guides.

The subject matter covered in the examination is provided here in outline form as an aid in preparing for the exam.

**Examination Name:** STAR Pipefitting Mastery Certification Examination

**Description:** Closed book exam consisting of 200 multiple-choice questions

**Passing grade:** 82% (164 correct)

**Total time allowed:** Two and one half (2 ½) hours

Percent of Exam	Domain Area
12.5%	Blueprint Reading
4.5%	Hydronic
6.5%	Instrumentation/Pneumatic Controls
21.5%	Math/Measure/Science
19.5%	Piping & Tubing
3%	Pumps
3.5%	Refrigeration/AC
7%	Rigging
6.5%	Safety
6.5%	Steam Systems
9%	Welding

An NITC-approved proctor administers this examination. Candidates are notified of a pass or fail result in writing by NITC, the training agency, or by the association that requested the examination.

Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled. Candidates may re-take their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in Section I: [GENERAL INFORMATION](#).

### RECERTIFICATION OF THIS CREDENTIAL

This certification is valid for five (5) years from issuance. Recertification can be accomplished by successfully passing a multiple-choice open book examination which contains fifty questions.

Certified individuals who have not recertified their certification within thirty days after the expiration date must take the proctored multiple-choice examination.

#### Important note about re-certification:

*This certification is valid for five (5) years from issuance.*

*Certification holders are responsible for keeping their certification current. NITC must be notified of any change in address. Changes may be made online, by telephone, or by mail.*

Additional information is contained in this Candidate Bulletin in [Section VII. "RECERTIFYING YOUR STAR MASTERY CERTIFICATION."](#)

## IV. STAR PLUMBING MASTERY

### SCOPE OF WORK: STAR PLUMBING MASTERY

A STAR Plumbing Mastery certification candidate is a qualified individual who can demonstrate mastery of the trade and will be skilled and experienced in the design, installation, maintaining, servicing, and repairing water systems; drainage, waste, and vent systems; storm water systems; fuel gas systems; water heating systems; and specialty systems, utilizing knowledge of national, state, and local plumbing codes to protect the health and welfare of the general public.

A qualified plumber may perform these tasks alone, or through the supervision of other individuals.

It is expected that the STAR Plumbing Mastery examination candidate is a plumber who has completed a UA training program or equivalent, and/or has five years of experience in the industry.

### EXAMINATION QUALIFICATION REQUIREMENTS

Candidates must provide five (5) years of documented work experience installing and servicing of plumbing systems or provide documentation of being in the fifth (5<sup>th</sup>) year of a plumbing training program involving the installation and servicing of plumbing systems.

### ABOUT THE EXAMINATION

The STAR Plumbing Mastery examination is a closed book exam consisting of one hundred ninety nine (199) multiple-choice questions. Examinees must answer at least 158 questions (79.4%) correctly to pass this examination. The STAR Plumbing Mastery examination is comprehensive. It is designed to test the knowledge of the experienced plumber. It is not realistic to expect that inexperienced plumbers will be able to pass this examination based solely on the information contained in UA textbooks. It is recognized that even the best plumber does not work in all areas of the service industry. Further, some knowledge can be forgotten through lack of use. As such, it is recommended that the candidate study a number of UA textbooks in preparing for the STAR exam. A list is provided on the following page. For those who do not have access to UA training materials, plumbing manuals that are available through industry sources can serve as references for this exam. Please refer to the list of subject matters covered when identifying appropriate reference materials, manuals, or training guides.

The subject matter covered in the examination is provided here in outline form as an aid in preparing for the exam.

**Examination Name:** STAR Plumbing Mastery Certification Examination

**Description:** Closed book exam consisting of 199 multiple-choice questions

**Passing grade:** 79.4% (158 correct)

**Total time allowed:** Two and one half (2 ½) hours

Percent of Exam	Domain Area
8%	Blueprint Reading
12.5%	Drainage Waste & Venting Systems
6%	Gas
10.5%	H2O Supply and Distribution
3.5%	Inspection & Testing
10%	Math & Measurement
13%	Piping & Tubing
9%	Plumbing Fixture
2.5%	Pumps
12%	Related Science & Code
8.5%	Safety
4%	Welding

An NITC-approved proctor will administer the multiple-choice portion of the examination and also witness the practical portion at the approved testing location. Candidates are notified of a pass or fail result in writing by NITC.

Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled. Candidates may re-take their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in Section I: [GENERAL INFORMATION](#).

### RECERTIFICATION OF THIS CREDENTIAL

This certification is valid for five (5) years from issuance. Recertification can be accomplished by successfully passing a multiple-choice open book examination which contains fifty questions.

Certified individuals who have not recertified their certification within thirty days after the expiration date must take the proctored multiple-choice examination.

#### **Important note about re-certification:**

*This certification is valid for five (5) years from issuance.*

*Certification holders are responsible for keeping their certification current. NITC must be notified of any change in address. Changes may be made online, by telephone, or by mail.*

Additional information is contained in this Candidate Bulletin in [Section VII. "RECERTIFYING YOUR STAR MASTERY CERTIFICATION."](#)

## V. STAR RESIDENTIAL-LIGHT COMMERCIAL HVAC MASTERY

### **SCOPE OF WORK: STAR RESIDENTIAL-LIGHT COMMERCIAL HVAC MASTERY**

A STAR Residential-Light Commercial HVAC Mastery certification candidate is a qualified individual who can demonstrate mastery of the trade and will be skilled and experienced in operations, planning, blueprint reading, safety, and the practical installation, repair, and service of HVAC systems.

A qualified candidate should possess knowledge of Installation, alteration(retrofit), repair, and service of HVAC systems including the design, construction, and maintenance of all air handling systems, ductwork systems, control systems, and piping for heating and cooling systems in residential and light commercial settings.

A qualified individual may perform these tasks alone, or through the supervision of other individuals. It is expected that the STAR Residential-Light Commercial Mastery examination candidate is a technician who has completed a UA training program or equivalent, and/or has three (3) years of experience in the industry.

### **EXAMINATION QUALIFICATION REQUIREMENTS**

Candidates must provide three (3) years of documented work experience installing and servicing HVACR systems, or provide documentation of being in the third (3<sup>rd</sup>) year of a HVACR training program involving the installation and servicing of HVACR systems.

### **ABOUT THE EXAMINATION**

The STAR Residential-Light Commercial HVAC Mastery examination is a closed book exam consisting of two hundred (200) multiple-choice questions. Examinees must answer at least 160 questions (80.00%) correctly to pass this examination.

The STAR Residential-Light Commercial HVAC examination is comprehensive. It is designed to test the knowledge of the experienced technician. It is not realistic to expect that inexperienced technicians will be able to pass this examination based solely on the information contained in UA textbooks.

It is recognized that even the best technician does not work in all areas of the service industry. Further, some knowledge can be forgotten through lack of use. As such, it is recommended that you study a number of UA textbooks in preparing for the STAR exam. A list is provided on the following page. If you do not have access to UA training materials, there are Residential-Light Commercial manuals available through industry sources that can serve as reference for you. Please refer to the subject matters covered to locate the appropriate manual or training guide.

**Examination Name:** STAR Residential-Light Commercial HVAC Mastery Certification Examination

**Description:** Closed book exam consisting of 200 multiple-choice questions

**Passing grade:** 80.00% (160 correct)

**Total time allowed:** Two and one half (2 ½) hours

Percent of Exam	Domain Area
15.5%	Applied Science & Math
17%	Basic Electricity
16.5	Comfort Cooling Troubleshooting
13.5%	Controls
11.5%	Heating
6%	Installation
8%	Light Commercial HVAC
8.5%	Safety
3.5%	Soft Skills
100%	

An NITC approved proctor administers the written examination. Candidates are notified of a pass or fail result in writing by NITC, the training agency, or by the association that requested the examination.

Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled. Candidates may re-take their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in Section I: [GENERAL INFORMATION](#).

### RECERTIFICATION OF THIS CREDENTIAL

This certification is valid for five (5) years from issuance. Recertification can be accomplished by successfully passing a multiple-choice open book examination which contains fifty questions.

Certified individuals who have not recertified their certification within thirty days after the expiration date must take the proctored multiple-choice examination.

#### **Important note about re-certification:**

*This certification is valid for five (5) years from issuance.*

*Certification holders are responsible for keeping their certification current. NITC must be notified of any change in address. Changes may be made online, by telephone, or by mail.*

Additional information is contained in this Candidate Bulletin in [Section VII. "RECERTIFYING YOUR STAR MASTERY CERTIFICATION."](#)



## VI. STAR COMMERCIAL REFRIGERATION MASTERY

### SCOPE OF WORK: STAR COMMERCIAL REFRIGERATION MASTERY

A STAR Commercial Refrigeration Mastery certification candidate is a qualified individual who can demonstrate mastery knowledge of the trade and will be skilled and experienced in operations, planning, blueprint reading, safety, and the practical installation, repair, and service of commercial refrigeration systems.

A qualified candidate should possess knowledge of installation, repair, and service of commercial refrigeration systems. This knowledge includes the design, construction, installation, alteration (retrofit), repair, service and maintenance of all auxiliary systems, control systems, rack systems, and self-contained units in commercial settings.

A qualified individual may perform these tasks alone, or through the supervision of other individuals.

It is expected that the STAR Commercial Refrigeration Mastery examination candidate is a technician who has completed a UA training program or equivalent, and/or has three (3) years of experience in the industry.

### EXAMINATION QUALIFICATION REQUIREMENTS

Candidates must provide three (3) years of documented work experience installing and servicing commercial refrigeration systems, or provide documentation of being in the third (3<sup>rd</sup>) year of a commercial refrigeration training program involving the installation and servicing of commercial refrigeration systems.

### ABOUT THE EXAMINATION

The STAR Commercial Refrigeration Mastery examination is a closed book exam consisting of one hundred ninety four (194) multiple-choice questions. Examinees must answer at least 161 questions (83%) correctly to pass this examination.

The STAR Commercial Refrigeration examination is comprehensive. It is designed to test the knowledge of the experienced technician. It is not realistic to expect that inexperienced technicians will be able to pass this examination based solely on the information contained in UA textbooks.

It is recognized that even the best technician does not work in all areas of the service industry. Further, some knowledge can be forgotten through lack of use. As such, it is recommended that you study a number of UA textbooks in preparing for the STAR exam. A list is provided on the following page. If you do not have access to UA training materials, there are Commercial Refrigeration manuals available through industry sources that can serve as reference for you. Please refer to the subject matters covered to locate the appropriate manual or training guide.

**Examination Name:** STAR Commercial Refrigeration Mastery Certification Examination

**Description:** Closed book exam consisting of 194 multiple-choice questions

**Passing grade:** 83% (161 correct)

**Total time allowed:** Two and one half (2 ½) hours

Percent of Exam	Domain Area
5.1%	Auxiliary Systems
20.1%	Basic Electricity
4.6%	Business & Customer Relations
16.4%	Controls
3.6%	Ice Machines
9.7%	Rack Systems
11.3%	Refrigeration Fundamentals
23.1%	Refrigeration System Operation
6.1%	Self-Contained Units
100%	

An NITC approved proctor administers the written examination. Candidates are notified of a pass or fail result in writing by NITC, the training agency, or by the association that requested the examination.

Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled. Candidates may re-take their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in Section I: [GENERAL INFORMATION](#).

### RECERTIFICATION OF THIS CREDENTIAL

This certification is valid for five (5) years from issuance. Recertification can be accomplished by successfully passing a multiple-choice open book examination which contains fifty questions.

Certified individuals who have not recertified their certification within thirty days after the expiration date must take the proctored multiple-choice examination.

#### **Important note about re-certification:**

*This certification is valid for five (5) years from issuance.*

*Certification holders are responsible for keeping their certification current. NITC must be notified of any change in address. Changes may be made online, by telephone, or by mail.*

Additional information is contained in this Candidate Bulletin in [Section VII. "RECERTIFYING YOUR STAR MASTERY CERTIFICATION."](#)

## VII. RECERTIFYING YOUR STAR MASTERY CERTIFICATION

### RECERTIFICATION

This certification is valid for five (5) years from issuance. Recertification of this certification can be accomplished by successfully passing a fifty (50) question, non-proctored, multiple choice “open book” examination within thirty days of the expiration date of certification. Candidates must answer thirty-seven of the questions (74%) correctly on the exam to achieve a passing grade.

The recertification test can be taken by either of two methods.

- (1) For a fee of \$82.65 take a computer-based recertification exam online at [www.testrac.com/nitc](http://www.testrac.com/nitc). A Testrac ID and PIN is required. Those can easily be obtained by going to [www.testrac.com/nitc](http://www.testrac.com/nitc) and selecting STEP 2, or by contacting the NITC office. Four (4) hours are allowed for the exam and results will be provided immediately at the completion of the exam.
- (2) For a fee of \$82.65 take a paper-based version of the recertification exam. This exam may be mailed to a certified individual, or sent to a training agency, employer, or association to be administered. After the completed exam is returned to NITC it may take up to 30 days to receive the pass/fail letter by mail. Contact NITC after 30 days have passed if the pass/fail letter has not arrived.

Recertification candidates are encouraged to use the computer-based system.

Certified individuals who have not recertified within thirty days after the expiration date must begin over by paying the appropriate fee and taking the initial certification examination.

See table of fees in Section I: [GENERAL INFORMATION](#).