



Candidate Information Bulletin

State of Iowa

Electrical Examinations

At a glance

The Iowa General Assembly enacted legislation establishing a statewide electrical licensing and inspection program. Responsibility for the program was given to the Fire Marshal Division of the Iowa Department of Public Safety and is overseen by the Electrical Examining Board (the Board). To review Iowa’s State Building Code Act 103, go to <http://coolice.legis.state.ia.us/Cool-ICE/default.asp?Category=billinfo&Service=IowaCode&input=103>.

The Board has contracted with Prometric Inc. to conduct its examination program. This bulletin is your guide to the process of taking an Iowa electrical exam. The steps below summarize the process. For information about a step, go to the page listed.



To take an electrical exam

- 1 Submit your license application along with a sponsorship request form to the Board—Page 2.
- 2 Once you receive approval from the Board to take your exam(s), you must schedule your exam appointment with Prometric—Page 2.
- 3 Prepare for your exam, using the content outlines in this bulletin and other materials—Page 4.
- 4 Present your required identification at the test center and take the exam—Page 5.
- 5 If you pass, the Board will contact you about your license.



To get answers not provided in this bulletin

For questions about exams:

Prometric
ATTN: IA Electrical Program
Phone: 800.897.2046
Fax: 800.347.9242
www.prometric.com/Iowa

For questions about applications and licensing:

Electrical Examining Board
Iowa Department of Public Safety
215 East 7th Street
Des Moines, IA 50319
Phone: 866.923.1082 (in state); or 515.725.6147
Email: elecinfo@dps.state.ia.us
www.dps.state.ia.us/fm/electrician/index.shtml

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Submitting your license application

You must obtain a license application from the Electrical Examining Board or online at www.dps.state.ia.us/fm/electrician/index.shtml. Complete the license application and mail it with the appropriate fees and other required information to the Board.

Once the Board has approved your application, you will receive an authorization to test form from the state. Upon receipt of the authorization form, you must register and schedule your exam(s).



Important Your authorization form is valid for two exam attempts or six months. If you do not pass your exam after two attempts, you will need to contact the Board to receive another authorization form and follow the rules established by the Board.

Registering for and scheduling an exam

After you receive your authorization to test form from the state, you must contact Prometric to:

- 1 Register for the exam(s) you need to take.
- 2 Pay the exam fee.
- 3 Schedule an appointment to take your exam.

You are encouraged to complete all three steps at one time using Prometric's Internet registration and scheduling system. Registration and scheduling are also available by phone. If you prefer, you can register by fax or by mail, but be aware that is a two-step process.

Accommodations. If you require ADA accommodation, see "Special consideration" on Page 3 before registering.

Holidays. Testing generally does not occur on the following holidays:

- New Year's Day
- Martin Luther King Jr. Day
- Presidents' Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Christmas Day

Additional state holidays may be observed in the state where you schedule your exam appointment.



To register and schedule an exam online

To register and schedule your exam online at any time:

- 1 Access www.prometric.com/Iowa/IAELE.
- 2 Under the "Do More" button, click on "Continue" and follow the prompts.

By phone—a one-step process

You may register and schedule your exam by calling 800.897.2046 between 7 a.m. and 8 p.m. (Central time), Monday through Friday. Please have your exam registration form and your Visa or MasterCard information available. At the end of the call, you will be given a number confirming your appointment. Record and keep this confirmation number for your records.

By fax or mail—a two-step process

You can register by fax or mail in two steps: (1) register and pay your exam fee and (2) schedule your exam appointment by phone.

You may fax your completed exam registration form (Page 10) to Prometric at 800.347.9242. You must include the Visa or MasterCard number and the cardholder's signature on the fax. Faxed registrations are processed within 24 hours, or one business day, of receipt.

You may mail your completed exam registration form and the appropriate exam fee to Prometric. When registering by mail, you may pay the exam fee by including a Visa or MasterCard number, company check, cashier's check or money order.

Personal checks and cash are not accepted. Please allow four to eight days for mail delivery and then 48 hours for processing.

Once your registration has been processed, you must call 800.897.2046 to schedule an exam appointment. Please record and retain the number confirming your appointment.



Note If you mail or fax your registration form, it will remain valid for 180 calendar days after it has been processed. If you do not call to schedule an exam appointment within those 180 calendar days, the registration will expire without further notice. You would then need to complete the entire registration process again and pay new fees before you could take the exam. **Exam fees are nonrefundable and nontransferable.**

Test center locations

You may take your exam at any Prometric test center in the United States.

A complete list of test center locations may be found by going to

www.prometric.com/Iowa/IAELE and clicking on the "Do More" button.

Alternatively, you may call 800.853.5448.

Test center locations are subject to change. Be sure to verify the address of and directions to your destination before you leave for your exam.

Special consideration

ADA accommodation. If you require testing accommodations under the Americans with Disabilities Act (ADA), please call Prometric at 888.226.9406 to obtain an accommodation request form. Reasonable testing accommodations are provided to allow candidates with documented disabilities recognized under the ADA an opportunity to demonstrate their skills and knowledge.

Submit professional documentation of your disability with your form to help us determine the necessary testing arrangements. Thirty days' advance notice is required for all special testing arrangements. There is no additional charge for these accommodations.

ESL note. If English is your second language, please note that a language barrier is not considered a disability.

Rescheduling an appointment

To avoid an additional fee, you must contact Prometric at least **three full business days** before the day of your originally scheduled appointment.

Rescheduling fees will apply as follows:

- **No fee** if you reschedule on the fourth business day or sooner prior to your appointment date.
- **\$40 fee** if you reschedule one to three business days before your appointment date.
- **Another full exam fee** if you reschedule on or after your appointment date.



Note This schedule **does not** include weekends or holidays since they are not business days. You will need to call earlier if a weekend or holiday is involved.

You may pay any additional fee with Visa or MasterCard and reschedule your appointment online or by calling Prometric at 800.897.2046.

If absent or late for your appointment

If you miss your appointment or arrive late and are not allowed to test, you will need to reschedule your exam and pay another full exam fee.

If you are unable to attend your scheduled exam due to illness or emergency, call Prometric. Under certain circumstances, the fee to reschedule may be waived. Prometric reserves the right to request documentation to support any illness or emergency claim.

Emergency closings

Severe weather or an emergency could require canceling scheduled exams. If this occurs, Prometric will attempt to contact you by phone or e-mail; however, you may check for test site closures by calling Prometric. If the site is closed, contact Prometric and your exam will be rescheduled without a rescheduling fee.

If a test center is open for testing and you choose not to appear for your appointment, you will forfeit your exam fee. You must then reschedule your exam and pay another full exam fee.

Preparing for your exam

Preparing can help you pass your exam and possibly save time and money needed to take it again. You can use the content outlines in this bulletin (beginning on Page 7) to prepare for your exam.

All exams consist of multiple-choice questions. Three different multiple-choice formats are used. Each format is shown in the following examples. An asterisk (*) indicates the correct answer in each sample question.

Format 1—Direct question

Given: Six, 240-volt, Size 8 AWG copper, type TW conductors are to be installed in a single raceway.

What is the MAXIMUM allowable current of each conductor?

- (A) 28 amps
- * (B) 32 amps
- (C) 40 amps
- (D) 50 amps

**Format 2—
Incomplete
sentence**

Disregarding exceptions, if the copper service-entrance conductors are size 3/0, the MINIMUM size of a copper grounding electrode conductor is size

- (A) 3/0 AWG.
- (B) 2/0 AWG.
- (C) 2 AWG.
- * (D) 4 AWG.

**Format 3—All of the
following EXCEPT**

All of the following common test instruments require physical connection to a circuit EXCEPT:

- * (A) an ammeter
- (B) an ohmmeter
- (C) a voltmeter
- (D) a wattmeter

**Process on
exam day**

Exams are administered using Prometric's user-friendly, Microsoft Windows®-based, computerized testing system. You do not need computer experience to use this system. In fact, you only use five keys on the entire keyboard to take the test. The other keys are disabled.

Arrival. You should arrive at least 30 minutes before your scheduled examination appointment in order to verify your identification and allow time for you to sign in.

Identification. You must present a valid form of identification before you can test. That identification document **must**:

- Be government-issued (e.g., driver's license, state-issued identification card, military identification card or current passport).
- Contain **both** a current photo and your signature.
- Have a name that exactly matches the name used to register for the exam (including designations such as "Jr." and "III").



Important Failure to provide appropriate identification at the time of the exam is considered a missed appointment and a rescheduling fee will be charged.

If you cannot provide the identification listed above, contact Prometric **before** scheduling your appointment to arrange an alternative way to meet this requirement.

**Test center
regulations**

To ensure that all candidates are tested under equally favorable conditions, the following regulations and procedures will be observed at each test center. Failure to follow any of these security procedures may result in the disqualification of your examination. All testing sessions are video and audio recorded.

References

- Only the 2011 edition of the *NFPA 70 National Electrical Code* (print version only, PDF downloads are not permitted) is allowed in the test center. Photocopies of this reference may **not** be used. No handwritten or additional notes (letters, words, diagrams, etc.) are allowed in the reference book. Highlighting and permanent tabbing added before your arrival at the test center is acceptable. Post-it® notes are not considered permanent tabbing and will not be allowed.
- Reference materials will be checked at the test center before and after your exam. Any reference material that has been written in during the exam will be confiscated.
- Sharing reference materials is not allowed.

YOUR EXAM RESULTS

- No other reference materials, papers, notebooks, or study materials are allowed at the test center. If you are found with these or any other aids, you will not be allowed to continue the exam and your answers will not be scored.
- Calculators**
- You may bring a silent, handheld, solar or battery-operated, nonprogrammable calculator (without paper tape-printing capabilities or alphabetic keypads) to use during the exam.
- Personal items**
- You **must not** bring any personal/ unauthorized items into the testing room. Such items include but are not limited to: cell phones, PDAs, pagers, cameras, recording devices, photographic equipment, watches, outerwear, hats, food, drinks, purses, briefcases, backpacks, and notebooks.
- Breaks**
- If you leave the testing room while an exam is in progress, you must sign out/in on the roster and you will lose exam time.
 - You are not allowed to use any electronic devices or phones during breaks.
- Visitors**
- No guests, visitors or family members are allowed in the testing area.
- Misconduct or disruptive behavior**
- Candidates who engage in any kind of misconduct or disruptive or offensive behavior may be dismissed from the examination. Examples are: giving or receiving help, taking part in an act of impersonation, removing test materials or notes from the testing room, using rude or offensive language and behavior that delays or interrupts testing.
- Weapons**
- Weapons are not allowed at the test center.



Important Every time you enter the testing room, you will be asked to turn your pockets inside out to confirm that you have no prohibited items. The test center administrator will collect any materials that violate the rules.

If questions arise. Test center administrators are not allowed to answer any questions pertaining to the exam content. If you do not understand a question on the exam, you should answer the question to the best of your ability. There is no penalty for guessing.

Copyrighted questions. All test questions are the property of Prometric Inc. and are protected by copyright. Federal law provides severe civil and criminal penalties for the unauthorized reproduction, distribution, or exhibition of copyrighted materials.

Your exam results

At the end of your exam, your score will be shown on the screen and you will receive a printed score report. The report will indicate **Pass** or **Fail**. Exam results are confidential and will be revealed only to the applicant and the Board.

Passing score. A score of 75 percent or above is required to pass each exam. Once you successfully pass your exam, you will receive a notification from the state regarding your license. Passing an exam is no guarantee that a license will be issued. All requirements based on Iowa Code 103 must be met before a license will be issued.

Retake information. If you do not pass the exam, you must register for a new exam. You must wait two business days for your results to be processed before scheduling a retake appointment. You are allowed to retake the exam one time using your original authorization form from the Board. If you do not pass your exam after your second attempt, you will need to contact the Board to receive another authorization form before you can reschedule another exam.

Duplicate score reports. You may call or write to Prometric to request a duplicate of your score report. There is a \$15 processing fee per report.

Appeals process

Our goal is to provide a quality exam and a pleasant testing experience for every candidate. If you are dissatisfied with either and believe we can correct the problem, we would like to hear from you. We provide an opportunity for general comments at the end of your exam. Your comments will be reviewed by our personnel, but you will not receive a direct response.

If you are requesting a response about exam content, registration, scheduling or test administration (testing site procedures, equipment, personnel, etc.), please submit an appeal in writing.

Your appeal letter must provide your name and Social Security number, the exam title, the date you tested and the details of your concern, including all relevant facts. Be sure to include your signature and return address. Mail your appeal letter to:

Prometric
ATTN: Appeals Committee
1260 Energy Lane
St. Paul, MN 55108

The Appeals Committee will review your concern and send you a written response within 10 business days of receipt. **Faxed appeals are not accepted** because an original signature is required.

Exam content outlines

Following are the content outlines for the Iowa electrical exams. These outlines are the basis of the exams. They list all subjects covered by each exam and the approximate percentage asked about each topic.

Each outline also indicates the total number of questions on the exam and the maximum time allowed to take the exam.

Exam references. Each outline lists the references that were used to develop the exam. You are allowed to use the 2011 Edition of the *NFPA 70 National Electrical Code* during your exam and **must bring** a copy of this reference with you to the test center. For information on how to obtain the exam references, call toll-free 877.624.2562.

Master Electrician **Open Book, 100 questions, 4 hours**

Scope – Tests a candidate’s knowledge of the design, plan, installation, repair, alteration, and maintenance of electric conductors, raceways, and equipment for light, heat, and power.

Subject Area	Percent
General Electrical Knowledge	10
Wiring and Protection	25
Wiring Methods and Materials	20
Equipment for General Use	20
Special Occupancies	10
Special Equipment	5
Special Conditions	5
Communication Systems	5

References

The following reference **is allowed** in the test center for your use while taking this exam. You must bring a copy of this reference with you to the test center.

1. *NFPA 70 – National Electrical Code*, 2011 Edition, National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02169, www.nfpa.org.

The following references were used to create exam questions but **are not allowed** in the test center.

1. *Delmar’s Standard Textbook of Electricity*, Fourth Edition, 2008, Delmar Learning, P.O. Box 6904, Florence, KY 41022, www.delmarlearning.com.
2. *Printreading Based on the 2011 NEC National Electrical Code*, 2011 Edition, American Technical Publishers (ATP), 1155 West 175th Street, Homewood, IL 60430-4600, www.go2atp.com.

EXAM CONTENT OUTLINES

**Journeyman Electrician
Open Book, 80 questions, 3 hours**

Scope – Tests a candidate’s knowledge of the planning, installation, repair, alteration, and maintenance of electric conductors, raceways, and equipment for light, heat, and power.

Subject Area	Percent
General Electrical Knowledge	10
Wiring and Protection	25
Wiring Methods and Materials	20
Equipment for General Use	20
Special Occupancies	10
Special Equipment	5
Special Conditions	5

References

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**Master Residential Electrician
Open Book, 60 questions, 3 hours**

Scope – Tests a candidate’s knowledge of the design, plan, installation, repair, alteration, and maintenance of electrical conductors, raceways, and equipment for light, heat, and power in one-, two-, and three-family dwellings.

Subject Area	Percent
General Electrical Knowledge	10
Wiring and Protection	25
Wiring Methods and Materials	25
Equipment for General Use	20
Special Occupancies	5
Special Equipment	5
Special Conditions	5
Communication Systems	5

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**Iowa Residential Electrician
Open Book, 50 questions, 2 hours**

Scope – Tests a candidate’s knowledge of the design, plan, installation, repair, alteration, and maintenance of electric conductors, raceways, and equipment for light, heat, and power in one-, two-, and three-family dwellings.

Subject Area	Percent
General Electrical Knowledge	10
Wiring and Protection	25
Wiring Methods and Materials	25
Equipment for General Use	20
Special Occupancies	5
Special Equipment	5
Special Conditions	5
Communication Systems	5

References

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Irrigation System Wiring
Open Book, 50 questions, 2 hours

Scope – Tests a candidate’s knowledge of the installation, repair, alteration, and maintenance of the electrical wiring used for irrigation machines, including low voltage systems, electrical control panels, and apparatus that are an integral part of the irrigation system.

Subject Area	Percent
General Knowledge	12
Wiring and Protection	20
Wiring Methods and Materials	20
Equipment for General Use	20
Special Equipment	14
Low Voltage	14

References

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The following reference was used to create exam questions but **is not allowed** in the test center.

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Disconnecting and Reconnecting Air Conditioning and Refrigeration Systems
Open Book, 50 questions, 2 hours

Scope – Tests a candidate’s knowledge in circuits, enclosures, and raceways used for electrical wiring in the disconnection and reconnection of air conditioning and refrigeration systems.

Subject Area	Percent
General Knowledge	10
Feeders and Branch Circuits	10
Grounding and Bonding	10
Raceways and Enclosures	14
Conductors	18
Motors and Controls	30
Special Occupancies	8

References

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2. *Printreading Based on the 2011 NEC National Electrical Code, 2011 Edition*, American Technical Publishers (ATP), 1155 West 175th Street, Homewood, IL 60430-4600, www.go2atp.com.



Exam Registration Form for Iowa Electrical Exams

Candidate Information

Last Name	First Name	Middle Name	Social Security Number ____-____-____
Street Address (including Apt. number or P.O. Box, if applicable)			
City		State	ZIP Code
Phone Number (including area code) ()		Email Address	

Exam Selection and Fees

Exam Title	Exam Fee	Total
Class A Master Electrician	\$60	\$
Class A Journeyman Electrician	\$60	\$
Master Residential Electrician	\$60	\$
Residential Electrician	\$55	\$
Irrigation System Wiring	\$55	\$
Disconnecting and Reconnecting Air Conditioning and Refrigeration Systems	\$55	\$
Optional Services	Fee	
Duplicate Score Report (exam title and date: _____)	\$15	\$
	Total Fee	\$

Payment: Fees may be paid by cashier's check, money order, MasterCard or Visa, payable to Prometric. Please include your full name on the check. **Personal checks and cash are not accepted. Fees are nonrefundable.**

If paying by credit card, please complete the information below.

Card Type (Check One) <input type="checkbox"/> MasterCard <input type="checkbox"/> Visa	Card Number	Expiration Date
Name of Cardholder (Print)		Signature of Cardholder

Candidate Affidavit

By signing and submitting this form, I certify that I am the candidate named above and I agree to comply with all examination rules and regulations.

Signature: _____ Date: _____

Submit this Form

By Fax: If paying with Visa or MasterCard, you may fax your registration to 800.347.9242.

By Mail: Payment may be made by cashier's check, certified check, money order, MasterCard or Visa. Send this completed form with the appropriate fee(s) to: Prometric, Attn: IA Electrical Program, 1260 Energy Lane, St. Paul, MN 55108

(Keep a copy of this registration form for your records.)