

# Welcome to JCAHPO!

Dear Candidate,

Congratulations on your decision to get certified! We are excited to assist you with the first steps on the path to your career success.

When you become certified, you'll be part of an elite group of more than 15,000 certified ophthalmic assistants, technicians and technologists all over the world. The Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO®) credentials are internationally recognized by physicians, employers, administrators and patients, so you will be recognized as a skilled, highly trained professional wherever you go.

Many ophthalmic professionals tell us that getting certified was one of the best decisions they ever made. Here are some of the benefits that certification provides:

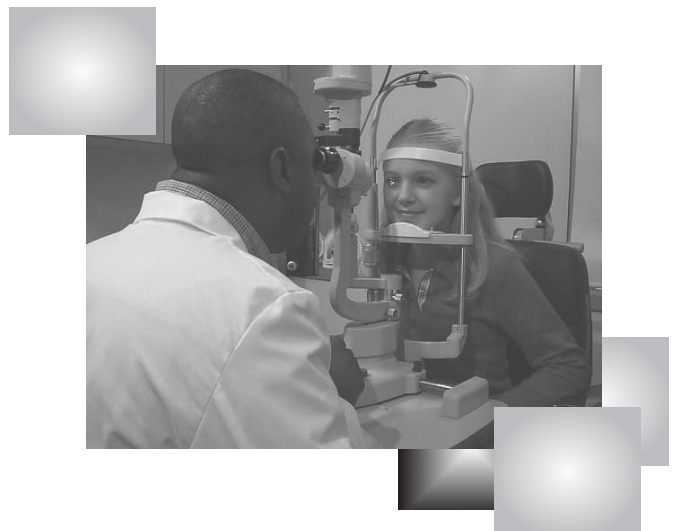
- Increases knowledge, skills, and overall productivity, giving them a competitive edge and greater earning potential;
- Ensures job opportunities in virtually every job market;
- Increases self-confidence, self-esteem, and career satisfaction;
- Proves commitment to giving the best possible patient care.

Whether you work in a private clinic, hospital, university, or military setting, certification will set you apart from others as an educated and highly trained professional. Your credentials will earn respect, not just in clinical situations, but also in the community at large.

Your decision to become certified is one of the most important decisions you will make. Career success is one step closer. Earn the credit you deserve and invest in yourself. Fill out the exam application included with this booklet, and you're on your way.

Sincerely,

The JCAHPO Commissioners



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## About This Handbook

The purpose of this handbook is to guide you through the certification process, from initial application to applying for recertification. Certification is a process that organizations use to recognize individuals who have met certain qualifications and demonstrated special knowledge and expertise. If you meet JCAHPO's eligibility criteria and pass the necessary examinations, you will become certified.

Information in this booklet may change between printings, so be sure to check the JCAHPO web site, <http://www.jcahpo.org>, for the most current and up-to-date information.

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# Learning Systems

## THE FUTURE OF OPHTHALMIC TRAINING.

**Keratometry**

**Lensometry**

**Ocular Motility**

**Retinoscopy/  
Refinement**

**Tonometry**

**Visual Fields**



The purchase of *Learning Systems* includes one complimentary quiz per course. Additional quizzes may be purchased for \$20 each. Order form is available on the opposite page or on-line. Complete the order form and return with payment of \$795, plus \$12 shipping and handling (MN residents, please include 6.5% sales tax). You may also fax your order form, including cardholder's signature, to (651) 731-0410. *Learning Systems* is ideal for clinics where all OMP are looking to advance their skills and their careers.

Earn up to 6 JCAHPO Group A credits.

Call (800) 284-3937 or visit [www.jcahpo.org](http://www.jcahpo.org) for more information.




JCAHPO Learning Systems is made possible in part from a generous grant from Alcon Laboratories, Inc.

The Association of University Professors in Ophthalmology Board of Trustees endorses the innovative training tool, JCAHPO Learning Systems.

The American Society of Cataract and Refractive Surgery Board of Directors endorses the JCAHPO Learning Systems simulation as a valuable training tool for ophthalmic professional staff.

The Ophthalmology Liaisons Committee of the American Academy of Ophthalmology has reviewed this simulation and determined that it can serve as a useful teaching supplement for allied health personnel who assist ophthalmologists.



Certification leads you to the top of the ophthalmic medical assisting profession. The prestigious designations of COA® (Certified Ophthalmic Assistant), CCOA® (Corporate Certified Ophthalmic Assistant), COT® (Certified Ophthalmic Technician), COMT® (Certified Ophthalmic Medical Technologist), Ophthalmic Surgical Assistant, and ROUB (Registered Ophthalmic Ultrasound Biometrist) are recognized worldwide by employers and peers as validation of an individual's knowledge and experience.

### **The standard for which others strive**

In August 2005, the National Commission for Certifying Agencies (NCCA) renewed the accreditation of JCAHPO's certification programs for Certified Ophthalmic Assistants (COA), Corporate Certified Ophthalmic Assistant (CCOA), Certified Ophthalmic Technicians (COT), Certified Ophthalmic Medical Technologists (COMT), and Ophthalmic Surgical Assistants. The NCCA Standards were created to ensure that certification programs adhere to modern standards of practice for the certification industry. JCAHPO is one of only 75 organizations in the U.S. to earn NCCA accreditation. Application has not yet been made for NCCA accreditation of the Registered Ophthalmic Ultrasound Biometrist (ROUB) certification. More information on the NCCA is available online at <http://www.noca.org/ncca/ncca.htm> or at (202) 367-1165.

### **Promotes your abilities and professional image**

Certification puts you at the top of the ophthalmic medical assisting profession. When you pass JCAHPO's rigorous certification exams, employers and peers recognize your accomplishment as solid proof of your knowledge and skills. That's why the CCOA, COA, COT, COMT, Surgical Assisting and ROUB designations are universally valued as the most prestigious credentials for ophthalmic professionals.

JCAHPO is acknowledged throughout ophthalmology as the source of professional certification for ophthalmic personnel.

## Scope of Ophthalmic Medical Personnel

As a member of the allied health profession, ophthalmic medical personnel (OMP) are part of a professional team of eye care providers. Certified OMP perform assigned procedures under the direction or supervision of a physician licensed to practice medicine and surgery, and qualified in ophthalmology.

Some of the most common tasks performed by OMP at all levels of certification include:

- Taking patient histories
- Providing patient services
- Taking eye measurements
- Administering tests and evaluations
- Maintaining instruments
- Performing a variety of clinical tasks

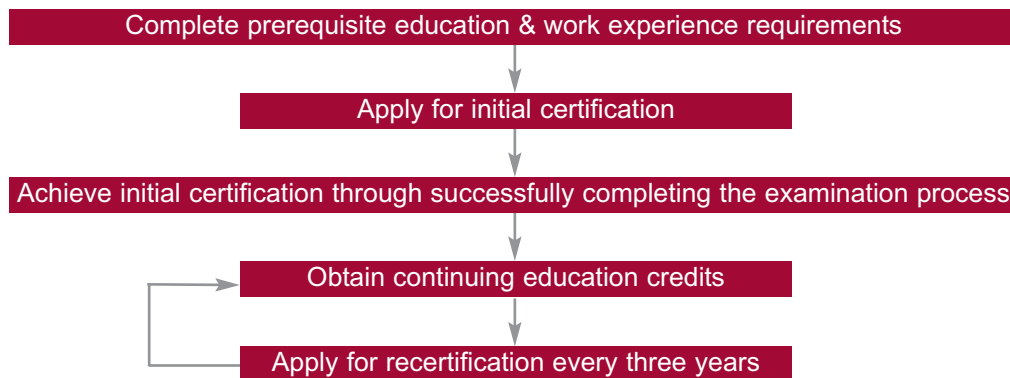
Ophthalmic allied health professionals possess skills and knowledge attained by didactic and clinical ophthalmic educational training. Their function is to assist the ophthalmologist by collecting data, administering treatment ordered by the ophthalmologist, and supervising patients. OMP are not independent practitioners and may not diagnose/treat eye disorders or prescribe medications. They can supply vital information to the physician who is treating patients, and may assist in areas such as surgery, patient instruction, and compliance.

JCAHPO certification and examination includes knowledge and performance of techniques in administration of eye drops, ointments, and irrigating solutions to the eye, and knowledge about oral medications and invasive techniques. It is not within the scope of JCAHPO certification and examination to evaluate the performance of any injection technique or similar invasive procedure when needles, trocars, cannulas, or instillation devices are placed within and beneath tissue surfaces.

While certification is an important indication of your knowledge and skill, please remember that JCAHPO does not warrant the job performance or express an opinion of the competence of individual certificants. We give you the tools to excel; the rest is up to you!

## Flowchart of JCAHPO Certification Process

The following flowchart outlines the process for achieving and maintaining JCAHPO certification:



## Overview of JCAHPO Certification Process

JCAHPO is a non-profit, non-governmental organization that provides certification to OMP and performs other educational and credential-related activities. JCAHPO is governed by a volunteer board of directors, composed of representatives from participating ophthalmic organizations, and a public member.

The Certification Committee, of the Board of Directors, governs JCAHPO certification. It provides the job-related insight necessary to ensure that the exams are relevant and valid, and monitors procedures to ensure that exams are administered fairly and under proper conditions.

JCAHPO has designed the certification process to serve important public needs as well as those of the ophthalmic assisting community by:

- setting specific and measurable standards for OMP knowledge and skills;
- formally recognizing OMP who have met those standards;
- providing official confirmation of certificants' qualifications to employers and the public.



## Statement of Nondiscrimination

The Joint Commission on Allied Health Personnel in Ophthalmology, Inc.® shall admit candidates without regard to age, sex, race, color, national origin, disability, religion, sexual orientation, or marital status to all rights, privileges, programs, and examinations. It shall not discriminate on the basis of age, sex, race, color, national origin, disability, religion, sexual orientation, or marital status in the administration of its certification and recertification policies.

## Confidentiality Procedures

JCAHPO has established a number of policies and procedures to ensure the integrity of its examination procedures and protect candidate privacy:

- With candidate permission, JCAHPO may release exam results to the educational programs and/or the military, which the candidate graduated from to assist the educational program or aid in reimbursement of fees (see page 9 for more information on this authorization).
- Individual candidate results may be counted, without authorization, in aggregate data gathered for program evaluation and reporting purposes.
- Performance feedback reports providing data on exam performance will be released only to the candidate (see page 18 for more information on candidate feedback reports).
- All exam content and materials are strictly confidential and will not be released to anyone except those involved in the development and administration of the exam.
- Official exam results are sent via mail to candidates *only*, not by e-mail, FAX, or telephone.
- The names of individuals, who are newly certified, have advanced to a higher level of certification, or whose certifications have expired, may be published by JCAHPO or be provided to state ophthalmologic societies and regional societies without authorization.
- JCAHPO may provide verification of certification status without authorization.

## Contact Information

If you have questions about JCAHPO certification, please contact:

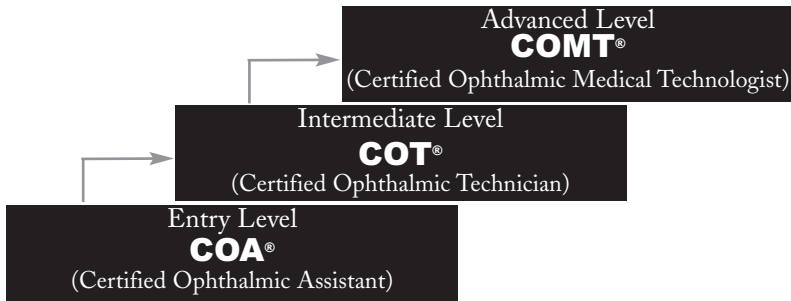
Certification Department  
JCAHPO  
2025 Woodlane Drive  
St. Paul, MN 55125-2998  
(800) 284-3937 or (651) 731-2944

# Certification Core Levels



## Core Levels of Certification

JCAHPO's three core levels of certification comprise a solid ladder for progressive career development.



Each level of certification has prerequisite eligibility requirements and an examination process. OMP may progress from one level of certification to the next through work experience and examination. Formal training can also serve as an entry point to certification at any of the core levels.

**CCOA®**  
(Corporate Certified Ophthalmic Assistant)

A certification for employees of companies that supply products and services to the ophthalmic community.

## Sub-Specialty Certification

Once certified at a core level, ophthalmic medical personnel may choose to become certified in an additional sub-specialty area.

**Ophthalmic Surgical Assisting**

A sub-specialty area of certification for OMP who assist in ophthalmic surgical procedures.

## Additional Certifications

**ROUB**  
(Registered Ophthalmic Ultrasound Biometrist)

A specialized certification for OMP who perform ultrasound on the eye.

**B-SCAN CERTIFICATION**

A specialized certification for OMP who perform B-Scan ultrasound on the eye. This certification examination is scheduled for release in 2008.

## Criteria for Certification

JCAHPO certification is awarded to candidates who have met the necessary criteria as shown below. The criteria vary by core certification level and sub-specialty.

	Level of Certification					
	COA	CCOA	COT	COMT	ROUB	Ophthalmic Surgical Assisting Sub-specialty Certification
To be awarded certification, a candidate must:	For additional information, see page:					
1. Meet the eligibility requirements.	5	6	5	6	7	7
2. Apply for initial certification.	9	9	9	9	9	9
3. Successfully complete the multiple-choice examination.	16	16	16	16	16	16
4. Successfully complete the Skill Evaluation. (COT candidates only)	N/A	N/A	16	N/A	N/A	N/A
5. Successfully complete a Performance Test. (COMT candidates only)	N/A	N/A	N/A	18	N/A	N/A

N/A: Not applicable

## Maintaining Certification

JCAHPO certification is valid for 36 months. This period begins in the month and year that you successfully complete all requirements for initial certification, and continues for the next 36 months. During the time that you are certified, you will want to maintain and expand your skills and knowledge through continuing education. See page 21 of this handbook for further information on recertification requirements.

# Eligibility Criteria

## COA Certification Requirements

To qualify for certification at the Assistant level, you must meet one of the following three options:

- A1. GRADUATE OF A FORMAL CLINICAL TRAINING PROGRAM<sup>1</sup>
  - Graduated from a CoA-OMP accredited Clinical Ophthalmic Assistant program within the 12 months (one-year) prior to submitting your application.
    - If you completed the program more than 12 months ago, you will need to obtain 18 JCAHPO Group A credits for each year following graduation.
  - No work experience is necessary.
- A2. GRADUATE OF A FORMAL TRAINING PROGRAM AND WORK EXPERIENCE
  - Graduated from a CoA-OMP accredited Ophthalmic Assistant program within the 12 months prior to submitting your application.
    - If you completed the program more than 12 months ago, you will need to obtain 18 JCAHPO Group A credits, for each year following graduation.
  - Worked at least 500 hours (three months full-time equivalent) under ophthalmologic supervision within 12 months prior to submitting your application.
- A3. COMPLETION OF INDEPENDENT STUDY COURSE AND WORK EXPERIENCE
  - Graduated from high school or the equivalent.
  - Successfully completed a CoA-OMP approved independent study course (e.g., American Academy of Ophthalmology Independent Study Course or the Canadian Ophthalmological Society Home Study Program) within the 36 months prior to submitting your exam application.
    - If you completed an independent study course more than 36 months ago, you will need to repeat the course or submit 18 Group A credits for each year following completion.
  - Worked at least 1,000 hours (six months full-time equivalent) under ophthalmologic supervision within 12 months prior to submitting your application.

## COT Certification Requirements

To qualify for certification at the Technician level, you must meet one of the following three options:

- T1. GRADUATE OF A FORMAL TRAINING PROGRAM<sup>1</sup>
  - Graduated from a CoA-OMP or CAAHEP accredited program for Ophthalmic Technicians within the 12 months (one year) prior to submitting your application. The Skill Evaluation application and all examinations must be completed within 36 months of initial application.
    - If you completed the program more than 12 months ago, you will need to earn 12 JCAHPO Group A credits for each year following graduation. These credits must be earned within the 36 months prior to submitting your application. See “Continuing Education Credits for Certification,” page 7.
  - No work experience is necessary.
- T2. CURRENTLY CERTIFIED AS A COA AND WORK EXPERIENCE
  - Worked at least 2,000 hours (one year full-time equivalent) as a COA, under ophthalmologic supervision within 24 months prior to submitting your application.
  - Earned 12 JCAHPO Group A credits within the 12 months prior to submitting your exam application. See “Continuing Education Credits for Certification”, page 7.
  - Maintained certification as a COA while pursuing COT certification.
- T3. CURRENTLY CERTIFIED AS AN ORTHOPTIST AND WORK EXPERIENCE
  - Worked at least 2,000 hours (one-year full-time equivalent) as a CO or OC(C), under ophthalmologic supervision within the 24 months (two years) prior to submitting your exam application.
  - Earned 12 JCAHPO Group A credits within the 12 months prior to submitting your exam application. See “Continuing Education Credits for Certification”, page 7.
  - Maintained certification as an Orthoptist (by the American Orthoptic Council or the Canadian Orthoptic Council) while pursuing COT certification.

<sup>1</sup> Individuals who graduate from a CoA-OMP accredited formal training program at the Technician or Technologist level are eligible to apply for a lower-level certification under the formal training program eligibility option. For example, graduates of a CoA-OMP Ophthalmic Technician program may choose to apply for certification at the Ophthalmic Assistant level. Likewise, graduates of a CoA-OMP Ophthalmic Technologist program may choose to apply for certification at the Ophthalmic Assistant or the Ophthalmic Technician level.



## COMT Certification Requirements

To qualify for certification at the Technologist level, you must meet one of the following four options:

### TG1. GRADUATE OF A FORMAL TRAINING PROGRAM AND TWO OR MORE YEARS OF COLLEGE EDUCATION<sup>1</sup>

- Graduated from a CoA-OMP, CAAHEP, or CMA accredited program for Ophthalmic Technologists within the 12 months (one year) prior to submitting your application. The Performance Test application and all examinations must be completed within 36 months of initial application.
  - If you completed the program more than 12 months ago, you will need to earn 12 JCAHPO Group A credits for each year following graduation. These credits must be earned within the 36 months prior to submitting your exam application. See “Continuing Education Credits for Certification”, page 7.
- Successful completion of two or more years of college and/or university-level courses (90 quarter or 60 semester credits).
- No work experience is necessary.

### TG2. GRADUATE OF A FORMAL TRAINING PROGRAM WITH LESS THAN TWO YEARS OF COLLEGE EDUCATION<sup>1</sup> AND WORK EXPERIENCE

- Graduated from a CoA-OMP, CAAHEP, or CMA accredited program for Ophthalmic Technologists within the 12 months (one year) prior to submitting your application. The Performance Test application and all examinations must be completed within 36 months of initial application.
  - If you completed the program more than 12 months ago, you will need to earn 12 JCAHPO Group A credits for each year following graduation. These credits must be earned within the 36 months prior to submitting your exam application. See “Continuing Education Credits for Certification”, page 7.
- Worked at least 4,000 hours (two years full-time equivalent), under ophthalmologic supervision.

### TG3. CURRENTLY CERTIFIED AS A COT AND WORK EXPERIENCE

- Worked at least 6,000 hours (three years full-time equivalent) as a COT, under ophthalmologic supervision.
- Earned 12 JCAHPO Group A credits within the 12 months prior to submitting your exam application. See “Continuing Education Credits for Certification”, page 7.
- Maintained certification as a COT while pursuing COMT certification.

### TG4. CURRENTLY CERTIFIED AS AN ORTHOPTIST AND WORK EXPERIENCE

- Worked at least 4,000 hours (two years full-time equivalent) as a CO or OC(C), under ophthalmologic supervision within the 60 months prior to submitting your application.
- Earned 12 JCAHPO Group A credits within the 12 months prior to submitting your exam application. See “Continuing Education Credits for Certification,” page 7.
- Maintained certification as an Orthoptist (by the American Orthoptic Council or the Canadian Orthoptic Council) while pursuing COMT certification.

## CCOA Certification Requirements

- Graduated from high school or the equivalent.
- Successfully completed a CoA-OMP approved independent study course (e.g., American Academy of Ophthalmology Independent Study Course or the Canadian Ophthalmological Society Home Study Program) within the 36 months prior to submitting your exam application.
- Completed 12 JCAHPO Group A continuing education credits within 12 months prior to submitting your application.
- Employed by a company supplier of ophthalmology products and/or services.

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<sup>1</sup> Individuals who graduate from a CoA-OMP accredited formal training program at the Technician or Technologist level are eligible to apply for a lower-level certification under the formal training program eligibility option. For example, graduates of a CoA-OMP Ophthalmic Technician program may choose to apply for certification at the Ophthalmic Assistant level. Likewise, graduates for a CoA-OMP Ophthalmic Technologist program may choose to apply for certification at the Ophthalmic Assistant or the Ophthalmic Technician level.



## Ophthalmic Surgical Assisting Certification Requirements

Candidates who choose to become certified in the sub-specialty of Ophthalmic Surgical Assisting must be currently certified at one of the three core levels of certification (COA, COT, or COMT).

### SA1. GRADUATE OF A FORMAL CLINICAL TRAINING PROGRAM

- Graduated from a CoA-OMP accredited program for OMP (which includes instruction and supervised experience in ophthalmic surgical assisting) within the 12 months prior to submitting your exam application.
  - If you completed the program more than 12 months ago, you will need to provide evidence of six months' work experience in a nationally accredited operating suite, under the supervision of regularly scheduling ophthalmic surgeons, one of whom is your sponsoring ophthalmologist. This work experience must be completed within the 12 months prior to submitting your exam application.

### SA2. ON-THE-JOB TRAINING

- Worked for 18 months in a nationally accredited operating suite, functioning either as a sterile first assistant, sterile scrub assistant, or non-sterile circulator. This work experience must be under the supervision of regularly scheduling ophthalmic surgeons, one of whom is your sponsoring ophthalmologist. Work experience must be completed within the 36 months prior to submitting your exam application.

## ROUB Certification Requirements

### R1. GRADUATE OF A FORMAL TRAINING PROGRAM

- Graduated from a CoA-OMP accredited program for OMP within 36 months prior to submitting your application.
  - If you have completed the program more than 36 months ago, you will need to obtain 25 approved credits. See page 24 for approved credit options.
- No work experience.

### R2. JCAHPO CORE LEVEL CERTIFICATION

- Currently certified by JCAHPO at any core level.
- Worked at least 2,000 hours (one year full-time) as a COA, COT, or COMT under an ophthalmologist or physician's supervision.

### R3. WORK EXPERIENCE

- Worked at least 4,000 hours (two years full-time) as an Ultrasound Biometrist.
- Earned five hours of A-scan continuing education credits in a classroom setting.
- Earned one hour of A-scan continuing education credits in a hands-on course.

## Continuing Education Credits for Certification

All acceptable continuing education credits are classified as either Group A or Group B. Only JCAHPO Group A credits may be used toward application for initial certification. To earn Group A credits you may:

- Attend lectures or workshops that have been awarded JCAHPO Group A credit and relate to the examination content areas listed in Appendix B.
- Complete a distance-learning course, with a quiz, that has been awarded JCAHPO Group A credit and relates to any of the examination content areas.

For a list of CE opportunities, visit JCAHPO's web site at [www.jcahpo.org](http://www.jcahpo.org) or refer to the JCAHPO newsletter.

Sponsors of all JCAHPO approved continuing education courses must provide you with a credit reporting form. Copies of these forms need to be submitted with your examination application to verify your credits.

# Initial Application Requirements

## Sponsor's Endorsement

COA, COT, COMT, and Surgical Assisting candidates need a sponsoring ophthalmologist signature. The sponsor must be a current licensed ophthalmologist. The signature attests to your current competence in all content areas of the examination for which you are applying. Content areas are located in Appendix B of this handbook.

CCOA candidates need a supervisor's signature on the application to attest that a company supplying ophthalmology products and/or services currently employs the applicant.

ROUB candidates may use either a sponsoring ophthalmologist or sponsoring physician's signature.

Please refer to page 9 for more information on the sponsor or employer information necessary to complete the application.

## Requirements for Advancement to a Higher Certification Level

If you are already certified and wish to advance to a higher level, you must maintain your current certification requirements while completing the examination process. For example, if you are a COA, you must maintain your COA certification until you have successfully completed the COT multiple-choice examination and Skill Evaluation.

After achieving the higher-level certification, you may request a pro-rated refund of your current recertification fee. Submit your refund request in writing, to JCAHPO's Certification Department, within 60 days of achieving your new credential.

## Responsibility for Establishing Eligibility

JCAHPO certification is voluntary. Each candidate is responsible for assuring that eligibility requirements, procedures, and deadlines are met before applying for certification.

Eligibility for certification depends upon your full compliance with all of JCAHPO procedures and deadlines as outlined in JCAHPO Standards, Procedures and Sanctions Pertaining to Certification and Recertification. These requirements include: truthful completion of the application, notification of name or address changes, disclosure of any previous criminal convictions, alcohol or controlled substance abuse, and any previous disciplinary actions by another organization. See Appendix A for JCAHPO Standards, Procedures and Sanctions.

As required by NCCA Standards for the Accreditation of Certification Programs, JCAHPO holds all candidates for certification to the same criteria. Individuals who have questions about their eligibility should contact the Certification Department.

## Special Consideration for Eligibility

The special consideration process is designed to serve applicants whose educational and/or employment background is different from the established eligibility criteria, but may be deemed equivalent. People who received ophthalmic training outside of the United States or Canada may be among those qualifying for special consideration. Special consideration is not offered to candidates who have the opportunity to qualify under established criteria but have chosen not to do so.

If you do not meet JCAHPO's eligibility criteria for certification, but you believe that your education, training and/or experience are equivalent, you may request a special consideration application. Contact the JCAHPO Certification Department for information on the documentation required to support your request. Each request is examined on an individual basis. The review process may take eight weeks.

## Applying for Initial Certification

Candidates interested in JCAHPO certification must complete the enclosed exam application. Detailed instructions for completing the form are outlined below, in *Completing and Submitting the Application Form*.

Once submitted, the Certification Department will determine your eligibility based on the criteria published in this handbook. If you meet the eligibility criteria, you will receive an acceptance letter within four weeks. The letter will contain information on scheduling your exam.

COT and COMT candidates will receive a separate application for the performance-based examinations, after they have passed the multiple-choice portion.

## Completing and Submitting the Application Form

A completed application form, with all requested information and documentation, must be submitted along with the examination fee. Use the detailed instructions below to guide you through completing the application.

## Directions for Each Application Item

Section	Heading	Instructions
1	Examination Type	Indicate the level of certification for which you are applying and if you have taken the exam previously.
2	ID#	If you are currently certified by JCAHPO, please provide your certification ID number.
3	Applicant	<ul style="list-style-type: none"> <li>- Check the appropriate box for Mr. or Ms.</li> <li>- Print your first name, middle initial, and last name. (If you were previously certified under a different last name, please indicate former name. If your name change has not been previously reported to JCAHPO, you will also need to provide official documentation – such as a driver's license or marriage certificate – to verify your name change. See page 10 of this handbook for more information on name changes). Your name will appear on the certificate as written on the application.</li> <li>- Print your home address, city, state, zip code, and country.</li> <li>- Indicate your home and business telephone numbers, e-mail address, and FAX number.</li> <li>- Check the appropriate box for education level and occupational background.</li> </ul>
4	Eligibility	<ul style="list-style-type: none"> <li>- Check the eligibility box that applies to you. Refer to the pages 5-7, which describe the eligibility for each core level of certification and sub-specialty.</li> <li>- Attach copies of documentation showing successful completion of a formal educational training program or independent study course, if applicable.</li> <li>- Attach copies of documentation showing current JCAHPO certification or evidence of certification as a CO, OC(C), or CRNO, if applicable.</li> <li>- Attach copies of verification of college credits or JCAHPO continuing education credits, if applicable.</li> <li>- Ophthalmic Surgical Assisting only: Attach a copy of a document showing official accreditation of the surgical facility by a nationally recognized accrediting agency.</li> <li>- Sign and date the line that attests to your compliance with the criteria as listed in this handbook.</li> </ul>
5	Payment	Please refer to the fee schedule included with this handbook for payment information. Check the appropriate box indicating form of payment. If using a credit card, provide card number, expiration date, security code, payer's name, and authorized signature.
6	Employer	Print employer's first name, middle initial, and last name. Print clinic name, name of clinic manager, main clinic address, and telephone number. Check the appropriate box for employer's practice setting and main sub-specialty.
7	Sponsor	If your sponsor is not your employer, please print sponsor's first name, middle initial, and last name. Print clinic name, name of clinic manager, main clinic address, and telephone number. Check the appropriate box for sponsor's practice setting and main sub-specialty.
8	Statement of JCAHPO's Responsibility	<ul style="list-style-type: none"> <li>- Read this section carefully, including the Agreement of Certification and Recertification.</li> <li>- Check the appropriate boxes in item 9, and attach an explanation if necessary.</li> <li>- Sign and date the line following item 9 on page 3 of the application.</li> </ul>
9	Sponsor's Endorsement	<ul style="list-style-type: none"> <li>- Your sponsoring ophthalmologist/physician needs to sign and date this line, attesting to your knowledge and total time of employment.</li> <li>- Original signatures are required - signature stamps or computerized digitized signatures are not accepted.</li> <li>- Your sponsoring ophthalmologist will need to provide his/her state/provincial medical license number.</li> </ul> <p><u>CCOA applicants:</u> Your supervisor needs to complete this section.</p>
10	Optional Consent for Release of Scores	Print the name of the institution or organization to which JCAHPO may release your results; scores will be used to assist educational programs and aid in reimbursement of fees. <b>Note:</b> Completion of this section of the application is optional and does not in any way affect the application process.



## Fees

To determine the correct fee to submit with your application, please check the enclosed fee schedule or [www.jcahpo.org](http://www.jcahpo.org). All fees include a non-refundable charge for processing. Refund amounts, if any, vary depending on when JCAHPO receives examination or recertification cancellation requests.

JCAHPO will not redeposit a check returned for non-sufficient funds (NSF). Any amount due will need to be re-submitted with a certified check, money order or credit card authorization. A handling fee for returned checks or declined credit card transactions will be assessed. Please refer to the fee schedule for specific information on handling fees.

## Incomplete Applications

JCAHPO will send a letter requesting any application information that is missing. *Please note:* If the requested information is not provided, the application will be denied and no refund will be issued. Your application must be complete before you can schedule your exam.

## Name and Address Changes

Please notify JCAHPO immediately of any name or address changes. Address changes may be made by phone, FAX or e-mail. Name changes must be requested in writing, by either FAX or mail, with your signature. Include copies of any official documentation of your name change (for example, copy of marriage certificate or driver's license).

Name and address changes may affect your ability to test. To be admitted to a testing center, the information on two forms of identification and JCAHPO's confirmation letter must match exactly.

## Special Testing Accommodations

In compliance with the Americans with Disabilities Act (ADA), JCAHPO will provide reasonable accommodations for persons with disabilities. If you believe that you require such accommodation, please contact JCAHPO to receive a special accommodations questionnaire. Return the completed questionnaire with your application, along with documentation of your disability-related needs from a qualified health care provider.

For military personnel who wish take the exams on their base, JCAHPO will work with your educational testing center to administer the multiple-choice exams in paper-pencil format. The COT Skill Evaluation can be administered as a computer-simulation.

## Foreign Testing Sites

JCAHPO will consider requests to administer exams to groups of candidates outside of the U.S. and Canada, but we cannot guarantee that such testing will be available. Contact the Certification Department for more information on testing at foreign locations. An additional fee may be charged for international administration, and exam formats may differ.

# Scheduling the Examination

## Procedures for Multiple-Choice Examinations and the COT Skill Evaluation Examination Test Centers

JCAHPO's computerized exams are administered by a professional testing service at hundreds of conveniently located test centers throughout the U.S. and Canada. A list of test center locations is included with this handbook; however, the list is subject to change without notice. Please check JCAHPO's web site, <http://www.jcahpo.org>, for a current list of test center locations.

### Confirmation Letter

Candidates approved for eligibility will receive a letter-confirming acceptance of the exam application. The confirmation letter will provide a toll-free number and other scheduling information. You have 90 days in which to schedule the exam with JCAHPO's testing vendor.

*JCAHPO does not control test site availability or exam scheduling.* To avoid scheduling complications, please schedule your examination shortly after receiving the confirmation letter. The testing service will provide each candidate with a confirmation number that must be presented when you arrive at the test center on the day of your exam. See page 16 for more information on identification procedures.

If you fail to schedule your exam within the 90-day eligibility period, you will forfeit your application fee. A new application will need to be submitted, including all fees.

### Eligibility Extensions, Appointment Changes, and Fee Refunds

JCAHPO's policies regarding scheduling, canceling, and changing appointments are:

1. If you fail to schedule an appointment within the eligibility period indicated in your confirmation letter, you will forfeit your application fee. A new application and examination fee are required to reapply for the examination.
2. Requests to cancel an application, before you have scheduled an appointment with the testing service, must be received in writing before the end of your 90-day eligibility period. A processing fee is retained.
3. To cancel a scheduled exam appointment, you must call JCAHPO's testing service at the toll-free telephone number you received with your acceptance letter no later than 12:00 noon Eastern time, two business days prior to your scheduled appointment. For example:

If your appointment is scheduled for	You must call the testing service by 12 noon Eastern time on
Monday	Friday
Thursday	Tuesday

4. If you cancel within the allowed time period, you may either reschedule with the testing center or request a refund in writing from JCAHPO. All requests for refunds must be received before the end of your 90-day eligibility period and a processing fee is retained. No refunds will be issued for cancellations that do not conform to the above policy.
5. If you fail to appear for the examination or arrive at the test center more than 15 minutes late for your appointment, you will not be tested and you must pay a no-show fee prior to rescheduling your exam.
6. If you are not admitted to the test center for failure to provide proper identification, you will be charged a no-show fee, which must be paid prior to rescheduling your exam.
7. If you are unable to take the examination within the eligibility period indicated in your acceptance letter, you may apply for a one-time 30-day eligibility extension by submitting a written request and paying an extension fee (see the fee schedule included with this handbook). The written request must be received by the end of the 90-day eligibility period.
8. If you are unable to take the examination and cannot cancel or reschedule within the required time period due to a personal emergency, you may request consideration to reschedule the examination without paying an additional fee by contacting JCAHPO in writing within 15 days of the scheduled testing session. A description of the emergency must be included in the written request, and supporting documentation (for example, a doctor's excuse) must accompany the request. Rescheduling without an additional fee will be considered on a case-by-case basis.

## Procedures for the COMT Performance Test

After successfully completing the COMT multiple-choice exam, you will be eligible to take the Performance Test. Currently the Performance Test is a hands-on examination in which candidates demonstrate their proficiency in a "live" testing environment. It is offered once a year, usually in Minneapolis, Minnesota.

**\*\*Beginning in 2009, the Performance Test will no longer be offered as a hands-on examination, but as a computer-simulation. Visit [www.jcahpo.org](http://www.jcahpo.org) for updates on the new examination release.\*\***

## Multiple-Choice Examinations

### Examination Content Areas

The content of JCAHPO's multiple-choice exams is based on a job task analysis survey. Job incumbents and sponsoring ophthalmologists complete a survey every five years, which identifies the tasks performed. Each exam covers only those topics presented in the outline. This makes the content outline an excellent examination preparation tool.

Appendix	Content Areas	Page
B, C	COA, CCOA, COT, COMT	27, 34
D	Ophthalmic Surgical Assisting	34
E	ROUB	35

### Examination Specifications

All examinations are delivered in English.

The multiple-choice exam is a series of statements or questions followed by four possible answers. One answer is the single-best response; the others are distractors. While some distractors may be partly correct, there is only one BEST answer. The number of questions and the time allowed to take the exam vary according to the level of examination:

Examination	Number of Scored Questions*	Time Allowed**
COA/CCOA	200	3 1/2 hours
COT	200	3 1/2 hours
COMT	200	3 1/2 hours
Ophthalmic Surgical Assisting	60	1 1/2 hours
ROUB	170	3 hours

#### Notes:

\* Number of Scored Questions: You may be administered between 10-25 additional "pretest" questions. These questions are not scored, that is, your performance on them does not count toward whether you passed or failed the examination. Pretest questions are given to be able to evaluate the question for possible inclusion as a scored question in future examinations. JCAHPO does not identify which questions are pretest questions and which are scored.

\*\* Time Allowed: The time allowed includes time to review a tutorial prior to taking the examination. See page 16 for further information on the tutorial.

### Examination Construction and Scoring

JCAHPO exams are developed by the JCAHPO Certification Committee, which includes ophthalmologists and certified OMP. A variety of reference materials are used to create examination questions, which are chosen from a pool of items based on the exam specifications and content outlines.

All examinations are criterion-referenced. This means that each candidate passes or fails based on their performance, which is judged against an objective standard and not on the performance of others on the same exam.

The passing score is the minimum number of questions that must be answered correctly. Scoring is statistically adjusted to ensure that all those who pass meet the same standards of competence, regardless of which form of examination they took.

A modified Angoff procedure is used to establish each passing score. In this commonly accepted psychometric procedure, content experts estimate the probability of each question being answered correctly by a person who meets the minimum eligibility requirements. Different forms of each respective exam may vary in difficulty from one to another. For this reason, passing scores are not released.

### Sample Items/Answers

1. The number 75 in the lens prescription

-5.00 + 1.50 X 75 is the:

- a. Power of sphere
- b. Axis of cylinder
- c. Interpupillary distance
- d. Vertex distance

2. The abbreviation prn stands for:

- a. Every day
- b. After meals
- c. As needed
- d. At bedtime

3. An A-scan is used to measure the:

- a. Corneal thickness
- b. Scleral rigidity
- c. Rod and cone function
- d. Eye's axial length

4. What extraocular muscles rotate the eyes into right gaze:

- a. RLR and LMR
- b. RIO and LSR
- c. RMR and LMR
- d. RSO and LIR

5. Which of the following is an opacification of the lens:

- a. Cataract
- b. Leukocoria
- c. Pinguecula
- d. Coloboma



## Preparation Strategies

JCAHPO exams are designed to cover the knowledge and skills needed by ophthalmic medical personnel in varied settings and/or geographic locations. They are more inclusive than the tests you took in school. Here are some tips to help you prepare for the exam:

1. **Read the content outline thoroughly.** The exam will include questions from every content area, and also may include questions from sub-categories within those content areas. Mark any topics that are unfamiliar to you. Do some extra reading in those areas or consider attending a class or seminar.
2. **Use many study sources,** since JCAHPO does not rely on one single reference source in the design of its exams. Review and refresh your knowledge, especially in those areas you marked when you reviewed the content outline. Read for learning and comprehension, not just to memorize.
3. Before the exam, **find the test center** and locate parking areas. Knowing where to go will reduce your stress on test day.
4. **Get plenty of rest** the night before the exam. Late-night cramming only tires you out.
5. **Focus on doing your personal best;** your score is not affected by anyone else's.

## COT Skill Evaluation

### Skill Tests and Specifications

You will have two hours (120 minutes) to complete all seven tasks: lensometry, visual fields, ocular motility, keratometry, retinoscopy, refinement and tonometry. There is no time limit on each of the individual tasks. Lensometry, retinoscopy, and refinement are offered in plus (+) and minus (-) cylinder.

### Practice Skill Evaluation

You can take the Skill Evaluation on a practice basis for a reduced fee. The practice test will not be considered a formal attempt, but if you pass it, you may count it toward COT certification by paying the difference between the practice test fee and the normal Skill Evaluation fee. Contact the Certification Department for more information about this option.

### Skill Evaluation Construction and Scoring

The seven skills included in the test are those most commonly performed by Certified Ophthalmic Technicians (COTs), according to a job task analysis survey of working technicians and sponsoring ophthalmologists.

The Skill Evaluation scoring system is based on performance steps and is evaluated by how well the candidate performs each task. The system includes these elements:

- Each skill is scored independently.
- Each skill is scored on two components: technique and accuracy of results.  
**Note:** Only technique is scored for Visual Field since you are not required to report results for this skill.
- To determine the technique score, each skill is divided into steps. Each step is assigned a weighted value based upon its level of importance to the overall process, as determined by the panel of subject matter experts. Points are assigned for correct responses based upon the weighted value of the step. A minimum has been established for achieving a “satisfactory” score. If this established minimum is not met, a “non-satisfactory” score will be assigned.
- To evaluate the accuracy of results, the panel of subject matter experts has established tolerance ranges for each of the required categories. To receive a “satisfactory” score on accuracy of results, all required results must fall within the tolerance ranges. Otherwise, a “non-satisfactory” score will be assigned.

A “satisfactory” score in both technique and accuracy of results is required to pass each individual skill, except Automated Visual Fields, which is scored on technique only. A passing score in all seven-skill areas is needed to successfully complete the Skill Evaluation. See page 18 for information on retaking the Skill Evaluation if you are unable to pass all seven-skill areas on your first attempt.



## Preparation Strategies

The COT Skill Evaluation confirmation letter contains a CD tutorial and a procedural checklist. The checklist details the steps necessary to perform each task. The following steps may assist you in preparing for the Skill Evaluation:

1. **Review the tutorial** carefully for critical information on the mechanics of the computer-based Skill Evaluation. The tutorial allows you the opportunity to manipulate some of the dials and controls on the simulated equipment. While the tutorial is not intended to teach how to perform the tasks, it will assist you in becoming familiar with how to maneuver through the exam and record results.
2. **Practice.** Become proficient at performing the skills tested and using the equipment upon which these skills are performed.
3. **Understand the theory** behind the task in order to build your confidence and help you make on-the-spot decisions during the evaluation.
4. **Review the procedural checklist** for a detailed list of steps and the preferred order in which to perform them.
5. **Use CDs, DVDs or videos** to learn more about the skills. Take notes and study them in preparation.
6. **Ask your employer** for opportunities to practice the skills on actual equipment in your work setting.
7. Before the Skill Evaluation, **find the test center** and locate parking areas. Knowing where to go will reduce your stress on test day.
8. **Get plenty of rest** the night before the exam. Late-night cramming only tires you out.
9. **Focus on doing your personal best;** your score is not affected by anyone else's.

## COMT Performance Test

### Performance Test and Specifications

Currently, the Performance Test is administered in a “live” testing environment. This means that you will be asked to demonstrate your proficiency on actual patients. Two examiners, who are either working technicians or ophthalmologists, will observe your performance. They have been specially trained in observing and scoring the Performance Test.

A full Performance Test is offered every fall at the University of Minnesota. This is for any candidate who has not taken the test before. A conditioned Performance Test is offered every spring for candidates who have received a “conditional pass” and need to retake certain areas.

A list of the tasks in which you may be asked to demonstrate proficiency is found in Appendix G.

**\*\*Beginning in 2009, the Performance Test will no longer be offered as a hands-on examination, but as a computer-simulation. Visit [www.jcahpo.org](http://www.jcahpo.org) for updates on the new examination release.\*\***

### Performance Test Construction & Scoring

The tasks included in the Performance Test are those most commonly performed by Certified Ophthalmic Medical Technologists (COMTs), according to a job task analysis survey of working technicians and sponsoring ophthalmologists.

A panel of experts designed the Performance Test scoring system, which identifies performance steps and criteria for judging how well the candidate performs each task. It is based on other accepted scoring systems for clinical exams. The system includes these elements:

- Each task is scored on technique and accuracy of results.
- To determine the technique score, each skill is divided into steps. Each step is assigned a weighted value based upon its level of importance to the overall process, as determined by the panel of subject matter experts. Points are assigned for correct responses based upon the weighted value of the step. A minimum has been established for achieving a “satisfactory” score. If the established minimum is not met, a “non-satisfactory” score will be assigned.
- To evaluate the accuracy of results, the panel of subject matter experts has established tolerance ranges for each of the required categories. To receive a “satisfactory” score on accuracy of results, all required results must fall within the tolerance ranges. Otherwise, a “non-satisfactory” score will be assigned.

## Preparation Strategies

The COMT Performance Test confirmation letter contains a procedural checklist. The checklist details the steps necessary to perform each task. The following steps may assist in preparing for the Performance Test:

1. **Carefully review the task list** in Appendix G and work to become proficient in the tasks listed.
2. **Review the procedural checklist** for a detailed list of steps.
3. Before you take the test, you will receive a list of equipment available at the testing site. You also may bring your own small equipment, such as a retinoscope, occluder combined with either a red lens or Maddox rod, pen light, ruler, or accommodative target. **Become thoroughly familiar with the equipment you may have to use.**
4. **Practice.** Become proficient at performing the skills tested and using the equipment upon which these skills are performed.
5. **Understand the theory** behind the task to build your confidence and help you make on-the-spot decisions during the evaluation.
6. **Use CDs, DVDs or videos** to learn more about the skills. Take notes and study them in preparation.
7. **Ask your employer for opportunities to practice the skills** on actual equipment in your work setting.
8. The night before the Performance Test, take advantage of times available to **view the equipment at the testing site.** This is an opportunity to view and touch the models used during the examination.
9. **Get plenty of rest** the night before the exam. Late-night cramming only tires you out.
10. **Focus on doing your personal best;** your score is not affected by anyone else's.



# Taking the Examination

JCAHPO and its testing service have strict procedures to make sure that every test is given under the same standardized procedures for everyone. For the best testing experience, please familiarize yourself with these procedures before you take the exam.

## Computer-Administered Examinations

### Identification Requirements for Admission to the Test Center

To be admitted for testing, you will need to present two forms of identification, as well as the confirmation number you received when you scheduled the exam. One form of identification must be a government-issued ID with photo and signature (driver's license, passport, state ID card, etc.) The second form of ID must contain at least your signature (credit card, ATM card, student ID card, etc.) The name on both forms of ID must match the name on your exam application and your confirmation letter. If the names do not match, you may not be admitted for testing.

1. If you arrive more than 15 minutes late for your scheduled appointment time, you may not be admitted to the testing center and you may be charged a no-show fee.
2. After your identity has been confirmed (see Identification Requirements above), you will be escorted into the testing room and assigned a testing station. You may not bring any personal items with you into the testing room.
3. The center administrator will provide you with a pencil and scratch paper for use during testing. These must be returned to the test proctor after you complete the test.

**Note:** Steps 4-10 Steps 4-9 only pertain to candidates taking the multiple-choice examinations.

4. Before beginning the exam, a tutorial is presented to test-takers to become familiar with the computer and the test format. If you have any computer-related questions or concerns during the exam, just raise your hand for assistance.
5. One question at a time will appear on the computer screen with the options to either answer it or mark it for review. You can use either the mouse or the keyboard to enter your answer.
6. At the end of the exam, you may return to those items you marked, provided there is time remaining. You may also review the items you answered if time permits.
7. You must finish the exam within the time allowed. An onscreen timer will tell you how much time you have left. A warning will appear when there is only five minutes remaining on the exam.
8. After completing the examination, you will be asked to complete a short online survey about your testing experience. Comments are routinely reviewed by JCAHPO in an effort to continuously improve the certification examination process; however, JCAHPO will not respond directly to individual comments.
9. After the examination, an unofficial results report, indicating whether you passed or failed the exam will be provided. This report will include feedback on how you performed in each content area. Official examination results will be mailed by JCAHPO (see the "After the Examination" section below.)

**Note:** Steps 10-12 only pertain to candidates taking the computer-simulated skill evaluation.

10. You will have two hours (120 minutes) to complete the computer-simulated Skill Evaluation; there are no time limits for individual skill areas.
11. A result report will not be provided at the conclusion of the exam. You will receive official notification from JCAHPO and a skill area performance feedback report within four weeks.
12. After completing the examination, you will be asked to complete a short online survey about your testing experience. Comments are routinely reviewed by JCAHPO in an effort to continuously improve the certification examination process; however, JCAHPO will not respond directly to individual comments.



## **Administration Procedures for the COMT Performance Test**

Currently, the full COMT Performance Test is administered once a year. If you are eligible to take the test, you will receive notice of testing opportunities.

COMT candidates, who apply, will receive an acceptance letter that includes identification requirements for testing, arrival time and directions to the test location, a task checklist and a list of equipment available at the testing site. You also may bring your own small equipment, such as a retinoscope, occluder combined with a red lens or Maddox rod, penlight, ruler, or accommodative target. Candidates will have the opportunity to visit the testing site and preview the equipment used in the exam.

### **Misconduct**

Any candidate who engages in misconduct during the examination may be dismissed from test administration at the discretion of JCAHPO and/or its testing service. In the event a candidate is dismissed, JCAHPO reserves the right to cancel or invalidate the examination scores. Misconduct includes, but is not limited to, giving or receiving help during the examination, using notes or other study aids during the examination, removing or attempting to remove exam materials from the testing center, creating a disturbance, and attempting to take the examination for someone else.





## Notification of Results

For multiple-choice exam results, you will receive an unofficial examination result report immediately upon completion of the exam. This performance feedback report indicates the content areas where further study may be helpful.

Official results from all examinations are released by JCAHPO by mail approximately four to six weeks after the exam. Exam results will not be released via the telephone, e-mail or FAX.

## Validation of Results

JCAHPO is responsible for the validity and integrity of the examination results reported. On rare occasions, occurrences such as computer malfunction or misconduct by a candidate may cause an examination result to be suspect. JCAHPO reserves the right to invalidate and/or withhold examination results if, upon investigation, violations of JCAHPO's regulations are discovered.

Candidates are expected to cooperate fully in the investigation.

## Retaking Examinations

### Multiple-Choice Examinations

If you do not pass the exam the first time, a re-test application is automatically included with the Notification of Results letter (refer to the fee schedule in this handbook for retest costs). You are then eligible to retest within 12 months from the initial exam date. Once the re-test application is processed, you will have 90 days in which to schedule and complete the exam.

If you decide not to apply to re-test within 12 months of the initial exam or fail to complete the exam within the 90-day eligibility period, then the complete application process begins again, with eligibility, supporting documentation, and required fees.

If you do not pass the initial exam, you may re-test two more times within the 12-months from the initial exam date. If you still do not pass, a waiting period of 12 months from the date of your first exam is required. You will need to submit a new application with eligibility, supporting documentation, and required fees.

## The COT Skill Evaluation

There are three possible outcomes to the initial Skill Evaluation (i.e., your first attempt at taking the Skill Evaluation):

1. *You successfully complete all seven-skill areas.* In this case, you are awarded the COT credential, and no re-testing is necessary.
2. *You successfully complete some, but not all, of the seven skill areas.* In this case, you have received a "conditional" pass. You will have the opportunity to re-test in the areas you did not successfully complete provided that you are within the 36-month time period from the date your initial multiple-choice application was approved.
3. *You do not successfully complete any of the seven skill areas.* In this case, you must reapply and repeat the entire Skill Evaluation at a future session, provided that you are within the 36-month time period from the date your initial multiple-choice application was approved.

All candidates (initial or conditioned) are given 120 minutes (2 hours) to complete the Skill Evaluation and must wait a minimum of six weeks before retesting. If a re-test is not successful, you will be expected to repeat only the areas in which you were not successful. A candidate may retest up to five times as long as you remain within the 36-month time period stated above. If you do not pass within the 36 month time period, or after six attempts, a new COT multiple-choice exam application needs to be submitted with eligibility, supporting documentation, and required fees.



## The COMT Performance Test

There are three possible outcomes to the initial Performance Test:

1. *You successfully complete all performance areas.* In this case, you are awarded the COMT credential, and no re-testing is necessary.
2. *You successfully complete some, but not all, of the performance areas.* In this case, you have received a “conditional” pass. You will have the opportunity to re-test in the areas you did not successfully complete provided that you are within the 36-month time period from the date your initial multiple-choice application was approved.
3. *You do not successfully complete any of the performance areas.* In this case, you must reapply and repeat the entire Performance Test at a future session, provided that you are within the 36-month time period from the date your initial multiple-choice application was approved.

If the Performance Test is not successfully completed within the 36-month time period, the candidate must reapply to take the multiple-choice examination. To reapply for the multiple-choice examination, the candidate must meet and comply with all current prerequisite eligibility and application criteria and requirements.



## Information for Candidates who Pass the Multiple-Choice Examination and are Pending the Practical Exam (Skill Evaluation or Performance Test)

### COT Candidates

If you pass the COT multiple-choice exam but conditionally pass, fail or choose to delay the Skill Evaluation, you may request a certificate at the Assistant level. Contact the JCAHPO Certification Department for more information.

### COMT Candidates

Candidates who have passed the COMT multiple-choice examination but fail, condition or choose to delay the Performance Test may request a certificate at the assistant or the technician level. To be granted a technician level certificate, one of the following circumstances must apply:

- You did not successfully complete the entire Performance Test, but did successfully complete the seven skill areas covered in the COT Skill Evaluation
- You did not successfully complete the entire Performance Test, but did successfully complete some of the required skill areas in the COT Skill Evaluation. In this circumstance, the candidate will be considered a “conditioned” Skill Evaluation candidate and will have one attempt to successfully complete the conditioned areas and earn COT certification.

Obtaining a COT certificate will not preclude a candidate from applying for any subsequent Performance Test. Contact the JCAHPO Certification Department for more information.

### Use of the Credential

After successfully completing all requirements for certification, you will be authorized to use the pertinent credential (i.e., COA, CCOA, COT, COMT, or ROUB) after your name. You may continue to use the credential as long as you comply with recertification requirements. Please note: There is no credential for Ophthalmic Surgical Assisting certification as it is a sub-specialty certification.

### Certification Documents

As a certificant, you will receive a certificate and wallet card. Both contain your certification expiration date and JCAHPO ID number. To maintain certification past the expiration date, you must comply with recertification requirements.

### Revocation of Certification

Once certification has been granted, it may be revoked for disciplinary reasons. Conduct which may initiate disciplinary action may include, but is not limited to, supplying false information on the application or supporting documentation, engaging in inappropriate or dishonest conduct during the examination, or otherwise failing to comply with the *JCAHPO Standards, Procedures and Sanctions Pertaining to Certification and Recertification* (see Appendix A).

### Why Become Certified? A Final Thought

JCAHPO certification makes a difference:

- **For patients and their families**, certification is visible proof that you have the knowledge and skill to provide competent, high quality care.
- **For employers**, certification proves that you have met or exceeded rigorous criteria for knowledge and experience. Most employers recognize that certification gives ophthalmic medical personnel the extra knowledge that enhances their proficiency as well as their productivity.
- **For you**, certification increases your value as an employee, expands your knowledge of the ophthalmic field, enables you to provide better patient care, earns the respect of your peers, and boosts your self-esteem and confidence by helping you realize your full potential as an ophthalmic allied health professional.

# Recertification

Certification assures the public that an individual is competent to practice. Your certification credential signifies that you have met JCAHPO's established standards for the practice of ophthalmic medical care.

Techniques and practices in medicine and healthcare continually change, so it is important to continue to improve your knowledge and skills. For this reason, JCAHPO has developed a recertification process that enables you to demonstrate your continued competence to employers, peers and the general public. The recertification process requires you to keep current with new developments in the field of ophthalmology through continuing education credits or re-examination.

## Maintaining Your Certification Credential-COA®, CCOA®, COT®, COMT®, and ROUB®

JCAHPO certification is valid for 36 months. This certification period begins in the month and year that you successfully complete all requirements for initial certification and continues for the next 36 months.

Certificants are required to recertify every 36-months. To recertify, certificants must comply with continuing education (CE) requirements. The minimum number of CE credits required during each 36-month cycle vary according to credential, as noted on page 22. All acceptable CE credits are classified as either Group A or Group B. Certificants who are applying for recertification may choose to either acquire all credits in Group A, or in a combination of Group A and Group B.

You can earn Group A credits by:

- Attending lectures or workshops that have been awarded JCAHPO Group A credit on any of the content areas listed in this handbook.
- Completing an independent study course and quiz that has been awarded JCAHPO Group A credit on any of the content areas listed in this handbook.
- Completing topics on medical ethics, professionalism, coding and regulations that have been awarded JCAHPO Group A credit.
- Review certification exam preparation courses that have been awarded JCAHPO Group A credit.
- Teaching or authoring courses awarded JCAHPO Group A credit. (1:1 basis).

You can earn Group B credits by:

- Attending lectures or workshops that have been awarded JCAHPO Group B credit (topics not listed in this handbook).
- Completing independent study course and quiz that has been awarded JCAHPO Group B credit (topic not listed in Appendix B). Sources of CE credit are listed on page 22.
- Attending Grand Rounds or Physicians' Continuing Medical Education (CME) in Ophthalmology, Category 1 courses approved by the American Medical Association (2 hours attended=1 credit for COAs, CCOAs, and COTs, and 1 hour attended=1 credit for COMTs.) Courses approved by the Canadian Medical Association are also acceptable in this category on the same basis as above.
- Participating in self-study (4 hours study=1 credit). You can read journals and books, listen to audiotapes, watch videotapes or CD ROMs, or attend courses that were not awarded credit by JCAHPO or the AMA as long as the topics are related to ophthalmology.

For self-study credits, you must provide complete information on your recertification application showing a list of the materials studied, title and author, the month and year you completed the self-study, and the amount of time spent completing it.

## Get Certified - Stay Certified!

Your JCAHPO certification credential is important and makes a difference. Patients value proof that you have met national standards and are able to provide quality care. Physicians and clinic administrators recognize that certification provides you with additional knowledge and demonstrates a commitment to ophthalmology. JCAHPO certification adds value for you, your profession, and patients. Success in today's competitive marketplace demands continued professional improvement. Maintain your credential by applying for recertification!

JCAHPO certification adds to your professional credibility and gives you an advantage in today's marketplace. The prestigious designations of COA®, COT®, and COMT® are recognized worldwide by employers and peers as a validation of your knowledge and experience. JCAHPO certification is the standard that others covet, and it reinforces the professional image of the ophthalmic medical assisting career.

Your decision to stay certified is one of the most important decisions you will make. JCAHPO certification is for professionals like you - success-oriented men and women striving for excellence in performance. Maintaining your credential tells others that you are serious about your career!



## Other Ways to Earn CE Credits

- Serve as a Performance Test Examiner (half-day session=1 credit), COMTs only.
- Teach a course carrying JCAHPO credit (1 hour taught=1 credit)
- Author or co-author a scientific publication and/or poster. JCAHPO reviews submissions for consideration of credit. Maximum of 5 credits for first author and 3 credits for co-author. Contact JCAHPO Education Department for more details.
- Achieve CPR certification. You can count one Group B credit per card for CPR certification for a maximum of 3 Group B credits per CE cycle.

Number of Credits Required per each 36-month Cycle:			
Credential	Total Number of Credits Required	Minimum Number of Group A Credits Required	Maximum Number of Group B Credits Permitted
COA	18	12	6
COT	27	18	9
COMT	36	18	18
CCOA	18	12	6

## Sources of CE Credit

JCAHPO publishes a listing of all programs awarded CE credit, including independent study courses with quizzes. The list is published in the JCAHPO newsletter and available on the JCAHPO web site, [www.jcahpo.org](http://www.jcahpo.org). Information on CE opportunities, including distance learning options (audio tapes, videotapes, magazine articles, on-line courses), is also posted on the web site.

## Recertification Requirements

JCAHPO will mail you a recertification application approximately six months prior to your recertification date; however, it is your responsibility to be aware of and comply with recertification requirements. The expiration date of the certification cycle is published on your certificate and wallet card.

At the end of your certification cycle, you are required to submit the recertification application accompanied by supporting documentation and pay the recertification fee listed in the JCAHPO's fee schedule. The recertification application must be *postmarked* no later than the last day of the last month in your certification cycle.

Your recertification application must include:

- The signature/endorsement of your sponsoring ophthalmologist to verify that he/she knows you, confirm your continued knowledgeable and skill in the field, and that you are working within established JCAHPO guidelines.  
**Note:** CCOAs are not required to have a sponsoring ophthalmologist. CCOAs must include their supervisor's signature on their application. ROUBs may have a physician as their sponsor.
- A list of all CE credits earned, signed by you to verify that you have completed the required continuing education.

The first time you apply for recertification or if you submit a recertification application late, you must provide proof of your attendance or participation at all CE courses listed on your application.

JCAHPO conducts random audits of recertification applications, requesting proof of attendance and participation at all CE courses listed on the application. Please retain all documentation of your attendance in case you are audited. Once you have received your certificate and wallet card, there is no need to retain documentation except for your own records.

## Alternative to CE Credits for Recertification

You may apply for a multiple choice computer-administered exam at your current core certification level in lieu of earning CE credits during your certification period. To be recertified using the examination option, you must successfully complete the multiple-choice examination appropriate for your current level. In order to avoid a lapse in your certification, the exam must be completed before the expiration of your certification. The Skill Evaluation or Performance Test do not need to be repeated.

Please contact the Certification Department for an application and more details if you plan to pursue this method of recertification.

## Ophthalmic Surgical Assisting Recertification

The certification period for this sub-specialty is 36 months and it is linked to your core level certification cycle. Because the two are linked, your first certification period in this sub-specialty may be shorter than the standard 36 months. Once the two cycles are synchronized, you will be due to apply for recertification in both areas every 36 months.

**Example:** David passed the ophthalmic surgical assisting computer-administered exam on June 15, 2007. He is also a COT. His current technician certificate is valid from January 2006, through January 2009. His new certificate, with the ophthalmic surgical assisting sub-specialty, will be dated January 2006 to January 2009. He will be due to apply for recertification in both areas by the deadline of January 31, 2009. After this, his certification cycle for both areas will be January 2009 through January 2012.

At the end of your certification cycle, you will need to submit the following information to JCAHPO, **postmarked** no later than the last day of the month in your certification cycle:

- A completed application for recertification. JCAHPO will mail you an application approximately six months in advance of the time you are due to apply for recertification in your core level. A separate application and fee are not required for the sub-specialty if submitted with your core level recertification application. The application requires the signature/endorsement of your sponsoring ophthalmologist. If you are unable to submit an application for recertification in ophthalmic surgical assisting, please indicate this on your recertification application.
- A log of surgical cases in which you have participated during your certification cycle. You will need to submit a log of cases in which you have actively participated (not merely observed), functioning as one of the following: Sterile First Assistant, Sterile Scrub Assistant, or Non-sterile Circulator. The log must include a signature from your sponsoring ophthalmologist attesting to your continued satisfactory performance in the operating room.

The log must include 10 cases for each 12 months of sub-specialty certification during the current cycle (30 cases for each 36-month certification cycle). The cases may have occurred during any portion of the current certification period. If you are required to apply for recertification in less than 36 months, the case requirement is prorated for each 12-month period.

The case requirement is divided into two groups: Categories A and B. You may choose to earn 100 percent of your case requirement from Category A, or you may choose to earn at least 80 percent of the case log from Category A and the remaining cases from Category B. See Category A and B lists in Appendix H.

### Recertification Alternatives for Ophthalmic Surgical Assisting

You have the option of attending CE courses to fulfill a portion of the case log requirement. You may earn up to 10 CE credits by attending courses in ophthalmic surgical assisting to substitute for up to 10 of the cases in the surgical experience requirement. You may attend courses that have been awarded JCAHPO or AMA CME Category 1 credit. You may not use self-study for the purposes of recertification in ophthalmic surgical assisting.

You also have the option of re-testing in lieu of submitting the case log if you meet all of the prerequisites outlined on page 7 of this handbook. Please contact the JCAHPO Certification Department for more details.



## ROUB Recertification

ROUB certificants are required to recertify every 36 months. To recertify, certificants must comply with continuing education (CE) requirements. A minimum of 25 CME (Continuing Medical Education) credits must be submitted per three-year cycle.

All JCAHPO Group A or Group B credits, American Medical Association (AMA) Category 1 credits, and American Osteopathic (AOA) Category 1 credits are accepted towards the 25 CME credit requirement.

Programs approved by the following are also accepted towards the 25 CME credit requirement:

- American College of Cardiology (ACC)
- Accreditation Council for Continuing Medical Education (ACCME)
- American Institute of Ultrasound in Medicine (AIUM)
- American College of Obstetrics and Gynecology (ACOG)
- American College of Radiology (ACR)
- American Society of Echocardiography (ASE)
- Canadian Society of Diagnostic Medical Sonographers (CSDMS)
- Canadian Society of Vascular Technology (CSVV)
- Society of Diagnostic Medical Sonographers (SDMS)
- Society of Vascular Technology (SVT)

Verification of all credits must be submitted with the recertification application. CME documentation must include the name of the certificant, the title of the course or activity, the date of the course or activity, the name of the sponsoring organization, and the number of credit hours awarded.

Recertification requirements require submission of a complete recertification application, the recertification fee, and verification of all CMEs earned.

Number of Credits Required per each 36-month Cycle:			
Credential	Total Number of Credits Required	Minimum Number of Credits Related to Content Outline (Refer to page 35)	Maximum Number of Credits Not Related to Content Outline (Refer to page 35)
ROUB	25	10	15

## Non-Certified Status

If you do not apply for recertification or miss the recertification application deadline, you will be placed on non-certified status. Individuals who are placed on non-certified status are not permitted to represent themselves as JCAHPO-certified personnel; and they may not utilize the credential after their name on business cards, stationery, name badges, etc.

From the time you are placed on non-certified status, you will have 12 months to apply for recertification before your credential becomes revoked. Within that 12-month period, the number of continuing education credits required to recertify your credential do not increase, but an \$85 late fee will be assessed.

You may choose to take the multiple-choice exam at your previous core certification level in lieu of earning CE credits. The exam must be successfully completed within 12 months from the time you are placed on non-certified status. The Skill Evaluation or Performance Test do not need to be repeated. Please contact JCAHPO for an application and more details if you plan to pursue this method of recertification.

**Please note:** Certificants will not receive new recertification dates when they reinstatement within the 12-month InActive status.

**Example:** Jennifer's COMT certificate is dated September 30, 2005 through September 30, 2008. She is not ready to complete her recertification application by her deadline.

- If her recertification application is processed and accepted after September 30, 2008, and before September 30, 2009 (one year late), no additional credits are needed, but a late fee is assessed.
- Even if Jennifer recertified September 1, 2009, her next recertification cycle is still September 30, 2008 through September 30, 2011 and all credits will need to be earned during that time period. Any credits that Jennifer earned between September 30, 2008, and before September 30, 2009, that were not used to satisfy her original recertification, may be carried over.

If your non-certified status continues for longer than 12 months, your certification will be considered revoked. Please contact the JCAHPO Certification Department to discuss your reinstatement options.

## **Denial of Recertification**

If, during the process of applying for recertification, allegations of a violation of the *JCAHPO Standards, Procedures, and Sanctions Pertaining to Certification and Recertification* are investigated and proven true, this may result in the denial of recertification, either on a temporary or permanent basis, depending on the circumstances. Certificants are expected to fully cooperate with the investigation. See Appendix A for more information.

## **Hardship Cases**

Individuals who have failed to comply with recertification requirements due to hardship have an opportunity to request a review of their case. A written request must be submitted to the Secretary of Certification.

The request must be postmarked within 30 days of your recertification deadline and include detailed supporting documentation regarding the hardship. Examples of hardship include health and extended active duty with the military.

## **Appeal Procedure**

Any candidate may appeal determinations related to initial exam ineligibility, examination results or recertification audits. The appeal must be in writing and received within 30 days of being notified of examination results, audit or ineligibility. The appeal should be addressed to the Secretary of Certification and include: a detailed written explanation of the grounds for your appeal and any evidence or documentation to support the reason a decision should be overturned. The burden of proof is the responsibility of the applicant.

JCAHPO's Secretary of Certification will submit the appeal to members of the Certification Committee for review, and a written notification of the Committee's decision will be mailed in four to six weeks. If the initial appeal is denied, you may appeal to the JCAHPO Board of Directors within 30 days. The Board's decision will be final and binding.

## Appendix A: A Summary of the JCAHPO Standards, Procedures and Sanctions Pertaining to Certification and Recertification



Every application for a JCAHPO certification examination is accompanied by a document entitled *JCAHPO Standards, Procedures and Sanctions Pertaining to Certification and Recertification*. Please read this document carefully; you will be required to sign an agreement on the examination application to abide by the Standards and Procedures. These rules are designed to protect the public interest, to safeguard the well-earned reputation of certified ophthalmic medical personnel, and to ensure fairness and due process in exercising these responsibilities of JCAHPO.

Careful reading and acceptance of the complete Standards and Procedures document is a prerequisite for submitting any examination or recertification application to JCAHPO. The following is a summary of the document's contents:

Eligibility for certification and recertification is dependent on your full compliance with the rules including those governing truthful completion of the application, notification of any change in your name or address, statement of any previous convictions, alcohol or controlled substance abuse, and any previous disciplinary actions by another organization.

Grounds for action to initiate a special disciplinary review include, but are not limited to:

- Misstatements in an application or any other communication to JCAHPO
- Providing unauthorized ophthalmic services
- Misrepresentation of JCAHPO certification status
- Certain irregularities in connection with JCAHPO examinations endangering their security or validity
- Gross or repeated professional negligence
- Impaired work performance due to alcohol or other drugs
- Any physical or mental condition which impairs competent professional performance
- Physical or sexual abuse of a patient
- Criminal convictions of certain misdemeanors and any felonies

The disciplinary process may, in ascending order, involve any or all of the following:

1. The President or Executive Director, after consultation with counsel, will determine whether the complaints or allegations warrant transmission to the Disciplinary Committee.
2. A Disciplinary Committee will review the allegations and facts and may find them inadequate to raise a question of possible violation of the rules, or may find cause to suspect a violation. In the latter case, you will be notified of the allegations and may dispute them and/or request a hearing. If there is no dispute or request for a hearing, the committee will render a decision and apply sanctions.
3. If there is a dispute or if you request a hearing, the allegations and response will be forwarded to the Disciplinary Committee and a formal hearing will be scheduled, following which this committee will issue a written decision.

Sanctions for a violation of any JCAHPO rule may include:

- Denial or suspension of eligibility
- Re-examination
- Revocation
- Non-renewal
- Censure
- Reprimand
- Suspension
- Other corrective action
- Probation up to five years

An appeal to the JCAHPO Board of Directors of an unfavorable decision by the Disciplinary Committee is possible.

Timetables, committee compositions, possible summary procedure, release of information, reconsideration of eligibility, reinstatement of certification after rehabilitation, and other specifics are among the topics covered in detail in the *JCAHPO Standards, Procedures and Sanctions Pertaining to Certification and Recertification* document.

## Appendix B: Content Outlines for the COA, CCOA, COT, and COMT Multiple-Choice Examinations

COA/CCOA candidates are examined in Content Areas 1-6.

COT candidates are examined in Content Areas 1-13.

COMT candidates are examined in Content Areas 1-23.

CONTENT AREA		COA/CCOA	COT	COMT
1	History Taking	20%	7%	1%
2	Basic Skills & Lensometry	17%	8%	2%
3	Patient Services	16%	4%	1%
4	Basic Tonometry	15%	4%	1%
5	Instrument Maintenance	11%	6%	2%
6	General Medical Knowledge	21%	10%	3%
7	Clinical Optics		14%	10%
8	Basic Ocular Motility		10%	5%
9	Visual Fields		12%	7%
10	Contact Lenses		10%	8%
11	Intermediate Tonometry		4%	3%
12	Ocular Pharmacology		8%	6%
13	Photography		3%	2%
14	Microbiology			2%
15	Advanced Tonometry			3%
16	Advanced Visual Fields			4%
17	Advanced Color Vision			2%
18	Advanced Clinical Optics			8%
19	Advanced Ocular Motility			7%
20	Advanced Photography			4%
21	Advanced Pharmacology			5%
22	Special Instruments and Techniques			8%
23	Advanced General Medical Knowledge			6%

*Note: Percentages indicate the percentage of the total examination devoted to the content area.*

### 1. HISTORY TAKING

#### A. Presenting Complaint/History of Presenting Illness

- Signs and symptoms
- Injury
- Triage
- Contact lenses
- Refractive status
- Confidentiality

#### B. Past Ocular History

- Refractive status problems
- Surgery and laser
- Injury
- Contact lenses
- Diseases and prescriptions

#### C. Family History

- Diabetes
- Ocular diseases and dystrophies
- Glaucoma
- Strabismus
- Hypertension
- Other

#### D. Systemic Illness, Past and Present

- Hypertension
- Pulmonary problems
- Surgical procedures
- Diabetes
- Arthritis
- Major infections
- Cardiac problems
- Sickle Cell disease
- Other

#### E. Medications

- Aspirin-containing medications
- Birth control pills
- Diuretics
- Steroids
- Blood pressure medications
- Other



**F. Allergies and Drug Reactions**

- Penicillin
- Fluorescein
- Sulfa
- Other
- Local anesthesia

**G. Partially Sighted Patient**

- Onset of visual loss
- Home/family/community support
- Use of low vision aids
- Problems/goals

**2. BASIC SKILLS AND LENSOMETRY**

**A. Method of Measuring/Recording Acuity**

- Distance acuity
- Low vision
- Artifacts
- Near acuity
- Illumination of target and background
- Recording
- Children
- Pinhole

**B. Color Vision Testing**

- Color plates
- Physiology
- D-15
- Children
- Farnsworth-Munsell

**C. Lensometry**

- Sphere
- Multifocal power
- Lensometer
- Aphakic lenses
- Cylinder power/axis
- Multifocal induced prism
- Lens “clock”
- Recording prescription
- Prism
- Base curve
- Estimation with loose lenses
- Transposition

**D. A-scan Biometry**

**E. Exophthalmometry**

**F. Amsler Grid**

**G. Schirmer Tests**

**H. Evaluation of Pupils**

**I. Estimation of Anterior Chamber Depth**

**3. PATIENT SERVICES**

**A. Ocular Dressings and Shields**

- Indications
- Proper use

**B. Drug Delivery (Advantages/Disadvantages)**

- Drops
- Injections
- Ointments
- Systemic
- Sustained release
- Complications

**C. Spectacle Principles**

- Interpupillary distance
- “Safety” lenses and frames
- Lens materials
- Frames
- Adjustments and repair
- Multifocals
- Care of spectacles

**D. Assisting Patient**

- Physically disabled
- Visually disabled
- Pediatric/children

**E. Minor Surgery**

- Assisting surgeon
- Instructing patient

**4. BASIC TONOMETRY**

**A. Applanation**

- Principles
- Advantages/disadvantages
- Errors
- Technique
- Cleaning and sterilizing

**B. Non-Contact**

**C. Complications/Contraindications**

**D. Scleral Rigidity**

- General concepts
- Methods of assessing scleral rigidity

**E. Factors Altering Intraocular Pressure**

- Squeezing eyelids
- Tight collar
- Heartbeat
- Body position
- Breath holding
- Other

## 5. INSTRUMENT MAINTENANCE

### A. Acuity Projectors

### B. Ophthalmoscopes

- Direct
- Indirect

### C. Retinoscopes

### D. Lensometers

### E. Perimeters

### F. Tangent Screen

### G. Phoropters

### H. Slit Lamps

### I. Ultrasound

### J. Keratometers

### K. Lenses

### L. Tonometers

### M. Muscle Light

### N. Special Instruments (Equipment)

### O. Surgical Instruments

## 6. GENERAL MEDICAL KNOWLEDGE

### A. Cardiopulmonary Resuscitation

- Fainting
- Cardiac arrest
- Acute drug reaction

### B. Anatomy

- Cardiovascular
- Respiratory
- Endocrine
- Nervous
- Ocular

### C. Physiology

- Cardiovascular
- Respiratory
- Endocrine
- Nervous
- Ocular

### D. Systemic Diseases

- Diabetes
- Hypertension
- Cancer
- Atherosclerosis
- Blood
- Infections
- Blood dyscrasia
- Infectious disease

### E. Ocular Diseases

- Refractive errors
- Infection
- Injury
- Red eye
- Presbyopia
- Other common disorders

### F. Ocular Emergencies

- First aid
- Management in the absence of the physician

### G. Metric Conversions

### H. Fundamentals of Microbial Control

- Sanitation
- Disinfection
- Sterilization
- Contamination

## 7. CLINICAL OPTICS

### A. Optics

- Geometric
- Clinical
- Physiologic

### B. Retinoscopy

- Principles
- Techniques

### C. Refractometry

- Fogging
- Astigmatic dials
- Cross cylinder
- Duochrome
- Accommodation
- General principles



### D. Advanced Spectacle Principles

- Vertex distance
- Aphakic spectacles
- Prism correction
- Bicentric grinding (slab off)

### E. Low Vision Aids

## 8. BASIC OCULAR MOTILITY

### A. Extraocular Muscle Actions

#### B. Strabismus

- Phoria/tropia
- Pseudostrabismus
- Horizontal deviations
- Paralytic (including primary and secondary deviations)
- Vertical deviations

#### C. Amblyopia Detection

#### D. Evaluation Assessment Methods

- Cover/uncover, alternate cover tests
- Maddox rod
- Near point of convergence/accommodation
- Fusion (e.g., Bagolini lens)
- Krimsky/Hirschberg
- Worth 4-dot
- Ductions and versions, head tilt
- Risley prism
- Diagnostic positions of gaze
- Stereopsis
- Vergences
- Diplopia (e.g., Red glass)

## 9. VISUAL FIELDS

### A. Visual Pathways

- Retina
- Chiasm
- Optic radiation
- Retinal nerve fiber layer
- Optic tract
- Occipital cortex
- Optic nerve
- Lateral geniculate body

### B. Visual Fields

- Visual field terminology (isopters, threshold, apostilb, decibel)
- Definition of the visual field
- The “island of vision” analogy

### C. Methods of Measuring the Visual Field

- Screening (single stimulus, multiple stimuli, Harrington-Flocks screener, others)
- Threshold perimetry

### D. Techniques

- Manual (confrontation, tangent screen, autoplot, arc perimeter, Goldmann)
- Kinetic perimetry
- Static perimetry
- Automated (Humphrey, Octopus, Dicon, others)

### E. Errors in Visual Field Testing

- Machine calibration
- Stimulus selection
- Catch trials, fixation losses, and fluctuation
- Recording and printing results
- Patient preparation (instructions, positioning, comfort, special situations, e.g., low vision, wheelchairs)
- Correcting lens (power and positioning)
- Test selection
- Artifactual loss

### F. Visual Field Defects from Disease

- Retinal disease
- Neurological
- Optic nerve disease (glaucoma, drusen, optic neuritis)
- Non-organic

## 10. CONTACT LENSES

### A. Basic Principles

- Hard lenses
- Astigmatism
- Extended wear
- Bandage lenses
- Rigid lenses
- Soft lenses
- Bifocal
- Gas permeable
- Oxygen permeability
- Toric lenses
- Aphakic
- Truncated
- Lens characteristics

### B. Fitting Procedures

- Keratometry
- Tear secretion
- Spectacle prescription conversion
- Contraindications
- Corneal diameter
- Eyelid tightness and fissure size
- Over-refraction
- Pupil diameter
- Fluorescein pattern
- Pediatric

### C. Patient Instruction

- Insertion
- Storage
- Wearing time
- Removal
- Hygiene
- Cleaning
- Solutions

## D. Troubleshooting Problems

- Tight
- Ulcers
- Deposits
- Edema
- Vision
- Loose
- Spectacle blur
- Pain
- Solutions
- Vascularization
- Giant papillary conjunctivitis
- Keratoconus
- Modifications

## E. Verification of Lenses

- Power
- Central thickness
- Base curve
- Edge profile
- Diameter

## 11. INTERMEDIATE TONOMETRY

### A. Aqueous Humor Dynamics

### B. Glaucoma

- Basic mechanisms
- Cupping
- Angle closure
- Basic medical management
- Open angle
- Basic surgical management

### C. Indentation

- Principles
- Advantages/disadvantages
- Errors
- Technique
- Cleaning and sterilizing

## 12. OCULAR PHARMACOLOGY — Types, Strengths, Actions, and Complications

### A. Anesthetics

### B. Mydriatics and Cycloplegics

### C. Epinephrine

### D. Beta-Blockers

### E. Miotics

### F. Steroids

### G. Antibiotics

### H. Carbonic Anhydrase Inhibitors

### I. Vasoconstrictors

### J. Antihistamines

### K. Osmotic Agents

### L. Nonsteroidal Anti-Inflammatories

### M. Others

## 13. PHOTOGRAPHY

### A. Basics of Photography

- Film
- Depth of field
- Reticles
- Video
- Exposure
- Synchronization
- Ocular
- Astigmatic correction
- Focal length
- Beam splitters
- Focus

### B. Fundus Photography

### C. Defects/Artifacts

## 14. MICROBIOLOGY

### A. Inflammatory Response

- Infectious
- Cell function
- Non-infectious
- Cell types

### B. Microscopy

- Bacteria identification
- Viral inclusions
- Disease correlation with microscopic findings



### C. Staining

- Gram
- Special
- Giemsa
- Wright

### D. Culture Media

- Bacterial
- Other
- Viral
- Fungal

### E. Specimen Collection and Processing

- Collecting
- Staining
- Labeling
- Culturing
- Fixing

## 15. ADVANCED TONOMETRY

### A. Pathophysiology of Glaucoma

- Structural changes
- Ocular hypertension
- Deterioration of function
- Congenital glaucoma
- Secondary glaucoma

### B. Tonometry Theory

- Applanation
- Indentation

### C. Managing Tonometry Problems

- Corneal irregularity and scarring
- High astigmatism
- Orbital disease

## 16. ADVANCED VISUAL FIELDS

### A. Advanced Principles of Visual Field Testing

- Dynamic-kinetic field testing
- Static field testing
- Binocular field testing

### B. Etiology and Description of Less Common Defects

- Toxic
- Nasal steps
- Steep vs. sloping margins
- Scotomata
- Absolute vs. relative
- Altitudinal

## 17. ADVANCED COLOR VISION

### A. Physiology/Theory

### B. Defects

- Anomalous trichromats
- Dichromats
- Monochromats and achromatopsia

### C. Advanced Testing Techniques

- Anomaloscope
- Other

## 18. ADVANCED CLINICAL OPTICS

### A. Advanced Refractometry

- Stenopeic slit
- Low vision patients
- Automated refractometers
- Merits of subjective vs. objective

### B. Advanced Optics

- Simple lens systems
- Curved mirrors
- Presbyopia
- Safety lenses
- Compound lens systems
- Accommodative range
- Low vision aids
- Schematic eye
- Plane mirrors
- Accommodative amplitude
- Induced prism
- Conoid of Sturm

## 19. ADVANCED OCULAR MOTILITY

### A. Amblyopia

- Classification
- Treatment
- Cause

### B. Anatomy and Physiology of the Extraocular Muscles

- Location
- Innervation

### C. Binocular Function

- Hering's Law
- Angle kappa
- Nystagmus
- Retinal correspondence
- Sherrington's Law
- Fusional amplitude
- Convergence and divergence
- AC/A ratio
- Stereopsis
- Panum's area

### D. Advanced Strabismus

- Convergence insufficiency/accommodative insufficiency
- Syndromes and systemic manifestations
- Dissociated vertical deviation
- Divergence excess/divergence insufficiency

## 20. ADVANCED PHOTOGRAPHY

### A. Fluorescein Angiography

- Principle
- Photography technique and sequence
- Filters (exciter, barrier)
- Fluorescence
- Fluorescein administration

### B. Slit Lamp

### C. External

### D. Specular Micrography

### E. Film Processing

## 21. ADVANCED PHARMACOLOGY

### A. Basic Concepts of Topical Medications

- Stability
- Sterility
- pH
- Adverse effects
- Tonicity

### B. Mechanism of Action and Desired Effects

- Sympathomimetics
- Parasympatholytics
- Sympatholytics
- Cholinesterase inhibitors
- Parasympathomimetics

## 22. SPECIAL INSTRUMENTS AND TECHNIQUES

### A. Ophthalmic Lasers

- Argon
- Excimer
- Krypton
- CO<sub>2</sub>
- YAG
- Other

### B. Imaging Techniques

- Computerized tomography (CT scans)
- Magnetic resonance imaging (MRI)
- Ultrasonography

### C. IOL Power Computation

### D. Electrodiagnostics

- Electroretinography
- Electrooculography
- Visually evoked potential

### E. Dark Adaptometry

### F. Macular Function Testing

### G. Pupillography

### H. Ophthalmoscope

### I. Slit Lamp

### J. Photokeratoscope

### K. Pachymetry

### L. Low Vision Equipment

### M. Contrast Sensitivity

## 23. ADVANCED GENERAL MEDICAL KNOWLEDGE

### A. Ocular Manifestation of Systemic Diseases

- Diabetes mellitus
- Thyroid disease
- Other
- Hypertension
- Pituitary disease
- Atherosclerosis
- Brain tumors

### B. Low Vision/Blindness

- Legal
- Psychological/social aspects
- Total
- Functional

### C. Ocular Disease

- Infectious
- Malignant
- Immunologic
- Other
- Congenital

### D. Trauma

## Appendix C: New Content Outlines for the COA, CCOA, COT, and COMT Multiple-Choice Examinations

COA/CCOA exam updates in 2008

COMT exam updates in 2009

COT exam updates in 2010

Category Area	COA/CCOA	COT	COMT
Administrative and Clerical Duties	14%	6%	4%
Color Vision, Basic Skills, Pupil Function, History Taking	12%	15%	14%
Communication Skills	14%		5%
Contact Lenses	3%	4%	3%
Equipment Maintenance and Repair	3%	3%	3%
Medical Ethics and Legal Issues	7%	4%	
Microbiology and Pharmacology	6%	5%	3%
Ocular Motility	3%	5%	20%
Ophthalmic Patient Services	19%	14%	17%
Ophthalmic Photography	3%	3%	
Optics/Opticianry	5%	16%	16%
Specialized Ophthalmic Testing	3%	14%	12%
Tonometry	3%	6%	
Visual Fields	5%	5%	3%
Surgical Assisting in ASC or Hospital Based OR			

While the new percentage breakdown for each level of certification overlaps in many content areas, the type of information tested within each level is different.

**Example:** A COA candidate will receive ocular motility questions with a different difficulty level than COT or COMT candidates.

## Appendix D: Content Outline for the Ophthalmic Surgical Assisting Examination

Ophthalmic surgical assisting candidates are examined in Content Areas A-H. Percentages indicate the percentage of total questions devoted to the content area.

- A. Pre-operative Preparation of Patient (5%)**
  - Consent
  - Intraoperative monitoring
- B. Instruments (25%)**
  - Identification
  - Selection/setup
  - Maintenance
  - Sterilization
  - Sutures/supplies
  - Function
- C. Aseptic Technique (20%)**
  - Scrubbing/gowning/gloving/prepping
  - Circulating
  - General knowledge
  - Assisting
- D. Ophthalmic Anesthesia (5%)**
  - General
  - Local
  - Topical
- E. Surgical Procedures (27%)**
  - Cataract surgery
  - Corneal surgery
  - Glaucoma surgery
  - Strabismus surgery
  - Oculo-plastics surgery
  - Orbital surgery
  - Lacrimal surgery
  - Refractive surgery
  - Retinal surgery
  - Laser surgery
  - Other
- F. Surgical Complications (3%)**
- G. Ophthalmic Surgical Pharmacology (10%)**
  - Miotics
  - Viscoelastics
  - Enzymes
  - Mydriatics
  - Osmotic 9
  - Narcotics
  - Other
- H. Minor Surgery (5%)**
  - Assisting the surgeon
  - Instructing the patient

## Appendix E: Content Outline for the ROUB Examination

Number	Content Area	Number of Items	Percent of Total (170)
1	Keratometry	9	5
2	Physics	27	16
3	Biometry Instrumentation	18	11
4	Instrument Settings for Biometry	22	13
5	Examination Techniques for Biometry	31	18
6	Sources of Error in Biometry	38	22
7	Intraocular Lens Power Calculations	25	15

## Appendix F: Skill Areas for the COT Skill Evaluation

Candidates will be asked to demonstrate their skill in each of the following seven areas:

- Clinical Optics/Lensometry - Demonstrate the ability to perform non-automated lensometry to determine the strength of the distance correction and the bifocal or trifocal add.
- Visual Fields - Demonstrate the ability to perform an automated visual field on a specified automated visual field test as determined by JCAHPO.
- Ocular Motility - Demonstrate the ability to detect a phoria or tropia, and identify the direction of the deviation using appropriate cover tests.
- Contact Lens/Keratometry - Demonstrate the ability to perform keratometry.
- Clinical Optics/Retinoscopy - Demonstrate the ability to perform retinoscopy.
- Clinical Optics/Refinement - Demonstrate the ability to perform refinement.
- Tonometry - Demonstrate the ability to perform applanation tonometry.



### Advanced Tonometry

- Measure intraocular pressure using a slit-lamp mounted applanation tonometer.
- Check accuracy of the applanation tonometer using the test rod.
- Adjust the applanation tonometer prism to its proper position for measuring intraocular pressure on a patient with high corneal astigmatism.

### Clinical Optics

#### Clinical Optics I

- Measure refractive error with a retinoscope. Must be able to use any of the following for the task: plus-cylinder phoropter or minus-cylinder phoropter and trial lenses.
- Refine axis of cylinder and power of cylinder using a cross cylinder. Must be able to use hand-held cross cylinder and phoropter-mounted cross cylinder for this task.
- Refine spherical power.

#### Clinical Optics II

- Measure corneal curvature using a keratometer (ophthalmometer).

#### Clinical Optics III

- Neutralize a pair of spectacle lenses, measuring with a lensometer (vertometer) for sphere, cylinder, and axis; for prism if present; for the power of bifocal and trifocal adds.
- Locate and mark optical centers of a pair of lenses and measure the distance between them.
- Measure bridge size, eye wire size, and temple length of a pair of spectacle frames.
- Measure base curve of a lens with a Geneva lens measure (lens clock).
- Measure surface curves of a lens with the Geneva lens measure (lens clock) and derive the power of the sphere, the power of the cylinder, and the approximate axis of the cylinder.
- Measure interpupillary distance (IPD) at distance and near (33 cm).
- Measure near point of accommodation (NPA) using a full distance correction and a metric rule (Prince, Berens, or other).
- Measure patient's amplitude of accommodation.
- Measure vertex distance with distometer.
- Measure optical power of a rigid contact lens using a lensometer (vertometer).
- Measure center thickness of a rigid contact lens using a thickness gauge. Measure base curve of a contact lens with curvature gauge (radiuscope).

### Ocular Motility

#### Ocular Motility I


- Detect and distinguish, at distance and near, a phoria and a tropia, using cover tests, and appropriate fixation targets.
- Measure and distinguish, at distance and near, a phoria and tropia, using cover tests, prisms (loose or bar), and appropriate fixation targets.
- Measure a phoria, at distance and near, using a Maddox Rod, prisms (loose or bar), and fixation light.
- Detect and identify underaction or overactions of extraocular muscles in the six cardinal positions of gaze.

#### Ocular Motility II

- Measure the near point of convergence (NPC), using a metric ruler and an appropriate fixation target.
- Detect and identify limitations of duction in secondary and tertiary positions of fixations.
- Measure fusional convergence and divergence using prisms (rotary or bar) at distance and near, using appropriate fixation target.
- Measure patient's stereo acuity.

### Photography

- Demonstrate ability to take a proper fundus photograph.
- Based on an external ophthalmic photograph, a slit-lamp photograph, a fluorescein fundus angiogram, a fundus photograph (or any of the foregoing in combination), identify the following errors in technique:
  - Subject out of focus
  - Subject not centered
  - Film overexposed
  - Film underexposed
  - Film not exposed
  - Film incompletely advanced

- 
- Camera back open at wrong time
  - Flash not synchronized with shutter
  - Blurring due to movement of camera or subject
  - Slit beam not centered
  - Slit beam not focused
  - Wrong illumination technique selected
  - Camera not aligned with pupil
  - Series of angiograms begun too late
  - Eyelids obscuring view
  - Lids not adequately separated
  - Camera positioned too far from eye
  - Camera positioned too close to eye
  - Mirror misalignment
  - Based on the fluorescein fundus angiogram photographs, identify the following phases:
    - Redfree
    - Preinjection/control
    - Choroidal
    - Arterial
    - Early venous
    - Late venous
    - Late

## **Special Instruments and Techniques**

- Demonstrate ability to perform an axial length measurement using a biometer.
- Demonstrate ability to assess pupil function.

## **Visual Fields**

- Use a tangent screen and hand-held targets to plot the blind spot and detect any abnormalities of it; detect and plot any scotoma within the central 30°.
- Calibrate a Goldmann-type bowl perimeter.
- Use a bowl perimeter to plot a peripheral isopter and to detect and plot any peripheral field defects. Static and kinetic methods of examination may be tested.
- Use a bowl perimeter to detect and plot a scotoma within the central 30°. Static and kinetic methods of examination may be tested.
- Perform Amsler Grid test.





## Category A (at least 80%)

### Retina

- Scleral Buckle
- Endo laser
- Vitrectomy
- Membrane removal

### Lens

- Cataract extraction +/- IOL
- Secondary IOL
- IOL exchange

### Strabismus

- Muscle procedure

### Cornea

- Penetrating Keratoplasty (PKP)
- Conjunctival autograft
- Lamellar/patch graft
- Pterygium with conjunctival transplant

### Oculo-Plastics

- Dacryocystorhinostomy (DCR)
- Orbital decompression
- Full thickness lid tumor
- Levator procedures
- Ectropion & Entropion repair
- Endoscopic brow lift
- Ptosis repair
- Lid laceration

### Glaucoma

- Trabeculectomy
- Seton procedures

### Other

- Scleral patch

## Category B (no more than 20%)

### Lens

- Reposition IOL

### Strabismus

- Botulinum toxin injection

### Cornea

- Radial Keratotomy (RK)
- Lasik
- Automated lamellar keratoplasty (ALK)
- Astigmatic Keratotomy (AK)
- Pterygium
- Excimer laser surgeries (e.g., PRK, PTK)

### Oculo-Plastics

- Blepharoplasty
- Canthal plication
- Temporal artery biopsy
- Conjunctival tumors
- Conjunctivoplasty
- Chalazion
- Nasolacrimal duct (NLD) probing
- Tarsorrhaphy
- Trichiasis
- Excision of mass - partial thickness lid tumor

