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ABSTRACT

The standards have been established and registered to advance the science of ophthalmic optics and assure the continuance of skilled and ethical practices in the optical processing and dispensing service by providing a recognized and formalized method of developing skilled craftsmen. Standards cover apprenticeship qualifications, agreement, terms, probationary period, supervision, evaluation, certification, and wages. They also consider related concerns: credit for previous employment, continuity of employment, ratio of apprentices to journeymen, hours of employment, technical instruction, policy, safety regulations, schedules, and related instruction. The appendix lists 21 textbooks for related instruction, 32 State apprenticeship agencies, and the 10 regional offices of the Bureau of Apprenticeship and Training. A sample certificate form and apprenticeship agreement form are illustrated. (AG)

National Apprenticeship Standards for Ophthalmic Finisher-Dispenser

U. S. Department of Labor

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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National Apprenticeship Standards for Ophthalmic Finisher-Dispenser

**Approved and adopted by the Guild of
Prescription Opticians of America, Inc., in
conformance with the basic standards recom-
mended by the Bureau of Apprenticeship and
Training**

**U.S. Department of Labor
James D. Hodgson, Secretary**

**Manpower Administration
Bureau of Apprenticeship and Training**

1972 Edition

PREFACE

These National Apprenticeship Standards have been approved and registered by the Bureau of Apprenticeship and Training, Manpower Administration, U.S. Department of Labor, as incorporating the fundamentals needed to establish local programs of apprenticeship in the optical industry for the training of ophthalmic finisher-dispensers.

The establishment and registration of these National Standards of Apprenticeship for the Guild of Prescription Opticians of America Inc., provide a solid base for development of skilled craftsmen for the optical industry.

The aim of the Bureau of Apprenticeship and Training and the Guild of Prescription Opticians of America, Inc., in establishing and registering these national standards is to advance the science of ophthalmic optics and assure the continuance of skilled and ethical practices in the optical processing and dispensing service, by providing a recognized and formalized method of developing skilled craftsmen.

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STATEMENT OF POLICY

It is a basic policy of the Guild of Prescription Opticians of America, Inc., to provide training and opportunity for growth for all employees of its members. This, in turn, promotes continuity and growth for the members and the industry. Such a policy assures ever-increasing opportunities for employees and association members. Effective training such as this policy recommends develops the productive work force that is the best guarantee of the security and well-being of the Nation.

The important objective is to meet the needs of the industry for skilled and competent journeymen. Shop experience and related instruction constitute the hard core of training conducive to career success in the industry.

It is recognized that the time necessary to acquire these basic fundamentals varies with the ability and application of the individual, the trade for which he is training, and the facilities available to each member.

Because of the rapid and inevitable changes continually taking place in this progressive industry, the Guild of Prescription Opticians of America National Apprenticeship and Training Committee will maintain a constant surveillance of apprenticeship problems and new requirements. It will recommend such new training criteria, guidelines, and measures of attainment in the apprenticeship program as new conditions dictate. In this fashion, the Guild of Prescription Opticians of America can more effectively foster and promote training of greater benefit to apprentices and the membership of the association.

DEFINITIONS

1. *Apprentice* shall mean a person who has signed an apprenticeship agreement to learn the trade outlined in applicable standards and who is registered with the appropriate registration agency. ^{1/}
2. *Apprenticeship agreement* shall mean a written agreement between an employer and the apprentice in which the terms and conditions of apprenticeship are set forth.
3. *Guild* shall mean the Guild of Prescription Opticians of America, Inc. For the purpose of this program, the guild's address will be: 1250 Connecticut Avenue, N.W., Washington, D.C. 20036.
4. *Employer* shall mean any member of the Guild of Prescription Opticians of America, Inc., who has the facilities and equipment to train apprentices in accordance with the terms and conditions of this national policy.
5. *Local standards* shall mean the document under which an employer employs and trains an apprentice in a trade covered by the standards, and such local standards shall be developed following guides outlined in the national policy.
6. *National Apprenticeship and Training Committee* shall mean the committee directly responsible to the guild for apprenticeship and training. While the guild sets the national policy, the national committee works to maintain this policy throughout the member firms. The adjustment of policy to the needs of the industry and the development of measures of attainment also rest with the guild.
7. *Supervisor of apprenticeship and training* shall mean the individual selected by the employer to organize and administer the local apprenticeship program in accordance with this national policy.
8. *Registration agency* shall mean a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, U.S. Department of Labor; or, in States where there is no recognized agency, it shall mean the Bureau of Apprenticeship and Training, U.S. Department of Labor.

^{1/} Local application of these National Apprenticeship Standards in States having State apprenticeship councils may require adaptation to meet the standards of apprenticeship in such States. The staffs of the Bureau of Apprenticeship and Training and State apprenticeship agencies are available to advise on State standards requirements.

QUALIFICATIONS FOR APPRENTICESHIP

1. Applicants to be considered for apprenticeship must meet the following minimum requirements:

- a. Have successfully completed high school or attained equivalency certificate.**
- b. Be at least 17 years of age.**
- c. Be physically able to perform the duties of the trade as determined by visual observation by the employer.**
- d. Have no immediate military obligation. ("Immediate" means that the applicant has received notice of pre-induction physical examination.)**

2. The applicant's application forms, aptitude tests, oral interview, education, and previous work experience will be used to determine the rating of his qualifications for selection, and qualified applicants will be selected in descending order of rating. Employers may refer applicants to the local office of the State employment service for testing if they so desire.

3. It shall be the responsibility of each employer establishing a local apprenticeship program under this guideline to insure that the local program is operated on a completely nondiscriminatory basis. All local programs established under these national standards shall contain the following equal opportunity pledge:

The recruitment, selection, employment, and training of apprentices during their apprenticeship shall be without discrimination because of race, color, religion, national origin, or sex. The sponsor will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under title 29 of the Code of Federal Regulations, part 30, as amended.

4. An employer having a local apprenticeship program in which five or more apprentices will be employed and trained will adopt an affirmative action plan and will make an analysis of the ratio of minority to nonminority apprentices in relationship to the ethnic composition of the population and work force at that location.

If the analysis shows that no underutilization exists, no additional steps need be taken. If underutilization exists, the employer will establish goals and timetables to correct the deficiency. The local apprenticeship standards will contain selection procedures

consistent with the applicable part of title 29, part 30, CFR and with these national standards.

5. As apprenticeship openings occur, the employer will notify the local schools and the public employment service office or inform the area Bureau of Apprenticeship and Training or the State apprenticeship council office servicing the local program. The notification shall include information on minimum qualifications, dates for application, and where to apply. The employer shall keep records of the selection process for at least 5 years.

CREDIT FOR PREVIOUS EXPERIENCE

1. Persons currently working for the employer who qualify and are selected for apprenticeship may be allowed credit on the term of apprenticeship for their previous training and experience.
2. Applicants selected for apprenticeship who have been employed elsewhere in the optical industry may be granted credit on the term of apprenticeship, commensurate with their past experience, after their records have been checked and evaluated by the employer.
3. To ascertain the extent of knowledge and previous work experience of the applicant, the employer will give a written, oral, and/or practical examination which will cover work experience and subjects related to the trade.
4. An apprentice given credit on the term of apprenticeship for previous experience shall be paid upon entrance the wage rate of the period to which such credit entitles him.

CONTINUITY OF EMPLOYMENT

Apprentices shall be given continuous employment insofar as possible. In the event of a reduction in force, all furloughed apprentices will be given an opportunity to return to their apprenticeship before new apprentices are hired.

APPRENTICESHIP AGREEMENT

1. Each apprentice (and his parent or guardian, if he is a minor) and the employer shall sign an apprenticeship agreement which shall be registered with the registration agency. Copies of the

apprenticeship agreement will be given to the apprentice, the employer, and the registration agency.

2. Each apprenticeship agreement shall contain a statement making the terms and conditions of the local standards a part of the agreement, a schedule of work processes and wage rates, and a statement that the apprentice will receive related technical instruction during the period of apprenticeship.

3. Some State apprenticeship agencies may require the use of their own apprenticeship agreement forms. In such instances, the agreement forms may be obtained from the staff of the State apprenticeship agency or of the Bureau of Apprenticeship and Training.

4. The employer shall notify the registration agency of all apprentice actions, including terminations, suspensions, and completions of apprenticeship.

TERM OF APPRENTICESHIP

1. The term of apprenticeship shall be 3 years (6,000 hours) and shall include a minimum of 150 hours per year of related instruction.

2. Apprentices who work in excess of the normal workday or workweek (overtime), shall receive credit on the term of apprenticeship only for the actual number of hours or days worked.

3. An apprentice whose progress is rapid, due to unusual aptitude and industry or because of past experience and who achieves the desired level of attainment for a designated period of the apprenticeship before the end of the period may be advanced to the next phase. When such advancement is made, the apprentice shall be paid the rate of the period to which he is advanced.

PROBATIONARY PERIOD

1. Apprentices under local standards shall be in probationary status during the first 6 months (1,000 hours) of apprenticeship, unless a different period of probation is stipulated by State apprenticeship agency regulations or law.

2. An apprentice who does not demonstrate aptitude or interest for the trade during the probationary period may be canceled from the program by the employer. The apprenticeship agreement may

be canceled by the apprentice during this period for personal reasons or upon finding that he does not like apprenticeship.

3. Apprentices will be subject to cancellation from the program by the employer at any time for infractions of company rules and policies or for failure to meet the required standards of proficiency.

RATIO OF APPRENTICES TO JOURNEYMEN

The ratio of apprentices to journeymen for each trade covered by the local standards shall be based on the employer's anticipated need for journeymen. Under local standards, one apprentice of each trade classification covered by the standards may be employed provided a journeyman of that classification is also employed. In addition, one apprentice of each trade classification may be employed for each additional three journeymen of that trade classification.

RESPONSIBILITIES OF APPRENTICES

It shall be the duty of the employer to impress upon each apprentice that he has voluntarily agreed to abide by the provisions of the local standards and therefore assumes the following responsibilities and obligations established under the program.

1. To perform diligently and faithfully the work of the trade and such duties as are assigned him by the employer in accordance with the local standards.
2. To respect the property of the customer, employer, and fellow employees and to abide by the working rules and regulations of the employer.
3. To attend regularly and complete satisfactorily the required related technical instruction as stipulated by the local standards.

SUPERVISOR OF APPRENTICES

Under the local standards, the employer shall designate a supervisor of apprentices to assure close supervision of the apprentice,

proper instruction, and job rotation to provide the apprentice complete training.

PROGRESS EVALUATION OF APPRENTICES

The employer or the designated supervisor of apprentices under local standards shall make an evaluation of the progress of his apprentices periodically during the term of apprenticeship. The evaluation shall cover both on-the-job training and related technical instruction. If an apprentice fails to show progress, he may be required to repeat a specific process; if he continues to show no progress, his apprenticeship agreement may be canceled. Adequate records shall be maintained by the supervisor of apprentices to substantiate progress.

HOURS OF EMPLOYMENT

The workday and workweek for apprentices under local standards shall be the same as for journeymen and subject to the same conditions. The apprentice shall work under the immediate direction of a journeyman, a supervisor, or the employer.

RELATED TECHNICAL INSTRUCTION

1. All apprentices under local standards shall be required to complete related technical instruction assignments from material furnished by the employer or a local educational institution when available. A minimum of 150 hours of such instruction each year of apprenticeship is normally considered necessary.
2. The time spent by apprentices in related instruction during the regular workday shall be classed as hours of work, and apprentices will receive their normal hourly compensation for this time. Such hours will be counted on the term of apprenticeship.
3. The time spent by apprentices in related instruction at local educational institutions or in home study outside the regular work hours shall not be considered as hours of work or counted on the term of apprenticeship.
4. In cases of failure on the part of an apprentice to fulfill his obligations as to progress, attendance, and deportment in related

instruction, the employer may withhold his periodic wage advancement or suspend or cancel his apprenticeship agreement.

5. The employer will arrange, whenever possible, to integrate the on-the-job training with related technical instruction so that apprentices receive maximum benefit from such instruction.

CERTIFICATE OF COMPLETION OF APPRENTICESHIP

When an apprentice has satisfactorily completed all of the requirements of the local standards, the employer shall notify the registration agency and request that a Certificate of Completion of Apprenticeship be issued for presentation to the apprentice.

MODIFICATION OF POLICY

1. These National Standards of Apprenticeship may be modified at any time by the Guild of Prescription Opticians of America, Inc. Such modification shall be submitted to the Bureau of Apprenticeship and Training, U.S. Department of Labor for approval.

2. No modification or changes in these standards shall affect local standards currently in effect at the time the modification is made. Local standards may be subsequently modified through procedures worked out with the registration agency to effect changes in policy.

RECOMMENDED MINIMUM APPRENTICE WAGE SCALE

1. All apprentices under the local standards will be paid a specific progressively increasing wage. Wage scales for each trade classification covered by this policy will be determined by each employer.

2. When the local standards for each employer are submitted to the registration agency for registration, a minimum wage scale will be included for each trade classification, covering the periods of the term of apprenticeship. The wage scale must comply with State and Federal requirements. It is recommended that the wage increases be scheduled at 1,000-hour intervals.

3. Rates of pay (suggested):

First 1,000 hours.....	55% of the journeyman's wage
Second 1,000 hours.....	60% of the journeyman's wage
Third 1,000 hours.....	65% of the journeyman's wage
Fourth 1,000 hours.....	70% of the journeyman's wage
Fifth 1,000 hours.....	80% of the journeyman's wage
Sixth 1,000 hours.....	90% of the journeyman's wage

The apprentice will be paid the full journeyman's rate after 6,000 hours of training.

SAFETY REGULATIONS

Apprentices will be provided with initial indoctrination and instruction to enable them to perform their duties in a safe manner. Such indoctrination shall include instructions on safety regulations, reporting of accidents, and availability of first aid medical facilities.

WORK-EXPERIENCE SCHEDULES

During the term of apprenticeship, the apprentice shall be given such instruction and experience as is necessary to develop the skills and knowledge needed for complete mastery of the trade. The training of apprentices shall include the following work experience and training but not necessarily in the sequence shown:

TRAINING IN THE USE, NOMENCLATURE, AND MAINTENANCE OF OFFICE AND LABORATORY EQUIPMENT

	<i>Hours</i>
I. GENERAL OPTICAL TRAINING.....	2,200
A. Lensometer measurements	
1. Sphere	
2. Cyclinder	
3. Axis	
4. Prism	
5. Marking	
B. Lens cutting	
1. Patterns	
2. Cribbing	
C. Automatic edging	
1. Rimless	
2. Bevel	
D. Drilling	

Hours

- E. Hand stone edging
 - 1. Blue
 - 2. White
- F. Lens hardening
 - 1. Drop ball testing
- G. Colmoscope
- H. Hot cones
 - 1. Alterations of zyl frames size and shape
 - 2. Insertion
- I. Lens-measuring devices
 - 1. Clock
 - 2. Vernier scale
 - 3. Thickness gage
 - 4. Neutralization
 - 5. Power computers
- J. Fitting tools
 - 1. Pliers
 - 2. Files
 - 3. Multimeasure
 - 4. Pupillometer
 - 5. Hot bath

II. CONTACT LENSES FAMILIARIZATION.....600

- A. Keratometer
- B. Topogometer
- C. Slit lamp
- D. Radioscope
- E. Cobalt light with fluorescein
- F. Molding equipment
- G. Measuring gages
- H. Surfacing unit

III. OCULAR PROSTHESIS.....550

- A. Dental lathe
 - 1. Shaping
 - 2. Fining
 - 3. Polishing
 - 4. Mandrills
- B. Strobe light
- C. Color computers
- D. Finishing unit

IV. HEARING AID FAMILIARIZATION.....	200
A. Ear mold equipment	

SUPERVISED PRACTICE WITH PATIENTS

	<i>Hours</i>
I. OPTICAL—FITTING OF EYEGLASSES.....	1,000
A. Measurement for glasses	
B. RX interpretation	
C. Lens type selection	
D. Lens designing	
E. Adjusting glasses	
II. CONTACT LENSES.....	500
A. Keratometer measurements	
B. Lens design (corneal)	
C. Lens inspection	
D. Lab bench procedures	
III. OCULAR PROSTHESIS.....	500
A. Conformer procedure	
B. Fitting	
C. Impressions	
IV. HEARING AIDS.....	200
A. Selection	
B. Earmold technique	
C. Service	

ADMINISTRATIVE WORK.....250

I. INVENTORY CONTROL
A. Purchasing
B. Statistical studies
C. Pricing by formula
II. OFFICE MANAGEMENT
A. Credit
B. Correspondence

Total.....	6,000
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RELATED INSTRUCTION

Related instruction covering 450 hours was developed by the Guild of Prescription Opticians of America, Inc., Education Committee and the Bureau of Apprenticeship and Training, U.S. Department of Labor. (See the section on Textbooks for Related Instruction in the appendix for a complete listing of the works cited as references.)

<i>Topic</i>	<i>Reference</i>
I. THE METRIC SYSTEM	Boeder
A. Introduction	
1. Measurements	
2. Numbers	
B. Review of arithmetic of fractions (part I)	
1. Common fractions	
2. Decimal fractions	
3. Special types of fractions	
4. The metric system	
5. Applications	
C. Review of negative numbers	
1. Addition	
2. Subtraction	
3. Multiplication	
4. Division	
5. Application to ophthalmic optics	
6. Algebra (part II)	
II. ANATOMY OF THE EYE AND ORBIT	Wolff
A. Surface anatomy of orbital opening	Wolff, chapter I, p. 23
B. The eyeball	Wolff, chapter II, pp. 30-32
C. The cornea	Wolff, chapter II, pp. 33-52
D. The eye planes	Stimson, chapter II
III. PHYSIOLOGY OF THE EYE	Guild Dispensing Manual ^{2/}
A. The eye as an optical instrument	section 2, part 3
B. Visual acuity	section 2, part 4
C. Refractive errors of the eye	section 1, pp. 20-23
D. The optical problems in post-operative aphakia	section 1, part 27
IV. THE HISTORY OF GLASS	Obrig, chapter I
A. The manufacture of glass	Obrig, chapter II
B. Characteristics of good optical glass	Obrig, chapter III

^{2/} Hereafter referred to as Guild DM.

<i>Topic</i>	<i>Reference</i>
V. LIGHT	Ogle, chapters I, II, and III
A. The nature of light	
B. The velocity of light	
C. The physics of light	
D. Characteristics	
E. Actions	
1. Reflection	
2. Transmission	
3. Absorption	
4. Refraction — Snell's law	
VI. EFFECTS OF QUANTITY AND QUALITY OF ILLUMINATION ON THE HUMAN EYE AND VISION	Sheard, section I, p. 17
VII. THEORY OF LENS ACTION	Ogle, chapter V
A. Refraction at plane surfaces	
B. Refraction at curved surfaces	
C. Refraction through a lens	
D. Forms of spherical lenses	
E. Refraction by cylinder	
F. Refraction by toric surfaces	
G. Aberrations in ophthalmic lenses	Ogle, chapter XI
H. Types of surfaces and actions	Guild DM, section I, parts 1-3
VIII. THE OPHTHALMIC PRESCRIPTION	Guild DM, section I, part 5
A. Transposition	Guild DM, pp. 25, 27-28
B. Single vision prescription analysis	Stimson, chapter VII
C. Presbyopic prescription analysis	Stimson, chapter VIII
D. Bifocal analysis and recommendations	Guild DM, section II, part 17
Prism	Guild DM, section II, part 18
E. Bicentric bifocals	Guild DM, section II, part 19
F. Vertex refraction	Guild DM, section II, part 20
G. Myopic problems	Guild DM, section II, part 21
H. Astigmatism	Ogle, chapter X
IX. OPHTHALMIC LENSES	
A. Types of ophthalmic glass	Guild DM, section II, part 11
Base curves	Guild DM, section II, part 12
B. Ophthalmic lenses	Guild DM, section II, part 13
1. Corrected curve lenses	Guild DM, section II, part 13
2. Strong plus lenses	Guild DM, section II, part 28
3. Types of bifocal lenses	Guild DM, section II, part 14
4. Plastic lenses	Guild DM, section II, part 16
C. Vocational lenses	Stimson, chapter X
X. BASIC FACIAL MEASUREMENTS	
A. Interocular distance	Stimson, chapter III

<i>Topic</i>	<i>Reference</i>
B. The fitting triangle	Guild DM, section II, parts 6-9
XI. FRAME SELECTION AND FITTING	
A. Selection of frames	Guild DM, section II, part 10
B. Fitting and adjusting frames	Stimson, chapter XIII
C. Cosmetic fitting	Dowaliby, chapters 7, 10-12, and 14
D. Custom fitting	
1. Bridges	Guild DM, section II
2. Ptosis crutches	A. F. Williams
3. Hemianopsia	
4. Post plastic surgical fittings	
XII. DISPENSING PROCEDURE	Stimson, chapter VI
A. Dispensing procedure	Levoy, pp. 12-39
B. Fitting table manners	Levoy, pp. 92-100
XIII. SPECIAL OPHTHALMIC LENSES	
A. Telescopic lenses	Stimson, chapter XI
B. Iseikonic lenses	Obrig, chapter XII
C. Absorptive lenses	Guild DM, section II, part 26
D. Occlusion lenses	
XIV. CONTACT LENSES FAMILIARIZATION	
A. History and development of contact lenses	Raiford
B. Theory of lenses and types	Obrig and Salvatori
C. Keratometric fitting procedures	Obrig and Salvatori
D. Impression fitting technique	Obrig and Salvatori
E. Fluorescein patterns	Obrig and Salvatori
F. Laboratory adjustment and related procedures	Obrig and Salvatori
XV. OCULAR PROSTHESIS FAMILIARIZATION	
A. Anatomy of the orbit	Wolff, chapter I, p. 1
B. Various surgical procedures	Adler, pp. 464-465
1. Enucleation	
2. Evisceration	
C. Fitting procedures	
1. Selecting forms	Galeski
2. Fitting problems	Braley, allen, and Webster
3. Modified impression method	Allen and Webster
XVI. HEARING AID FITTING FAMILIARIZATION	
Familiarization	Raiford
XVII. PREPARATION FOR STATE BOARD EXAMINATION OR AMERICAN BOARD OF OPTICIANRY CERTIFICATION EXAMINATION	

APPENDIX

TEXTBOOKS FOR RELATED INSTRUCTION

- Adler, F. *Gifford's Textbook of Ophthalmology* 6th ed.; Saunders, 1967.
- Allen, L. and Webster, H. "Modified Impression Method of Artificial Eye Fitting," *American Journal of Ophthalmology*, February 1969.
- Anatomy of the Eye*. Industrial Education Service, Virginia State Department of Education.
- Baldwin, William R. and Shick, Charles R. *Corneal Contact Lenses: Fitting Procedures*. Chilton Books, 1962.
- Bausch and Lomb. *Job Coach for Prescription Shop Operations*. Bausch and Lomb, Inc., 1946, reprinted 1965. (Also, see publications listed in Bausch and Lomb catalog, *Ophthalmic Literature and Promotional Materials*, June 1965.)
- Bausch and Lomb. *Helpful Hints on Ophthalmic Optics*. Bausch and Lomb, Inc., revised 1963.
- Boeder, P. *An Introduction to the Mathematics of Ophthalmic Optics*. Tuttle, 1937.
- Bradley, A., Allen, L., and Webster, H. "Problems in Ocular Prosthesis," *Journal of Iowa State Medical Society*. 43:329, 1953.
- Dowaliby, M. *The Fundamentals of Cosmetic Dispensing*. Professional Press, 1966.
- Epting, John B., and Margret, Frank C., Jr. *Ophthalmic Mechanics and Dispensing*. Chilton Books, 1964.
- Galeski, J. "A Classification of Plastic Ocular Prosthesis," *Optical Journal and Review of Optometry*. 90:41, 1953.
- Guild Dispensing Manual*. Guild of Prescription Opticians of America, Inc.
- Kozol, Frank. *Ophthalmic Fitting and Adjusting*. Chilton Books, 1964.
- Levoy, M. *The Art of Positive Dispensing*. Official Publications, 1968.
- Obrig, T. and Salvatori, P. *Contact Lenses*.
- Ogle, K. *Optics - An Introduction for Ophthalmologists*. Thomas, 1961.

Raiford, N. *Hearing Aid Handbook for Laymen*. Doubleday, 1959.

Sheard, C. *Visual and Ophthalmic Optics*. Chilton Books, 1957.

Stimson, R. *Ophthalmic Dispensing*. Mosby, 1951.

***Supervised Study Guide for Related Instruction for the Optician*. University of Texas, Division of Extension, Industrial Education Divisions. Also Unit Tests and Answer Book. This material is especially useful for group study instruction in areas where there are not enough apprentices to form a unit class.**

Wolff, E. *The Anatomy of the Eye and Orbit*. 4th ed.; McGraw-Hill Book Co., 1958.

SOCIAL SECURITY NO

APPRENTICESHIP AGREEMENT Between Apprentice and Employer

The employer and apprentice whose signatures appear below agree to these terms of apprenticeship:

The employer agrees to the nondiscriminatory selection and training of apprentices in accordance with the Equal Opportunity Standards stated in Section 30.3 of Title 29, Code of Federal Regulations, Part 30; and in accordance with the terms and conditions of the
(Name of Apprenticeship Standards)
which are made a part of this agreement.

The apprentice agrees to apply himself diligently and faithfully to learning the trade in accordance with this agreement.

Trade Term of apprenticeship
(Hours or Years)

Probationary period Credit for previous experience

Term remaining Date the apprenticeship begins

This agreement may be terminated by mutual consent of the parties, citing cause(s), with notification to the Registration Agency.

(Name of Apprentice—Type or Print)

(Signature of Apprentice)

(Address)

(Parent or Guardian)

(Name of Employer—Company)

(Address)

(Signature of Authorized Official)

TO BE COMPLETED BY THE APPRENTICE:

Date of birth
Month Day Year

Check: Male Female

If you consider yourself a member of one of the ethnic groups listed, please check:

Negro American Indian

Oriental Spanish American

Approved by Joint Apprenticeship Committee.

Date by
(Signature of Chairman or Secretary)

Registered by
(Name of Registration Agency)

Date by
(Signature of Authorized Official)

BAT-45 (Rev. 1969)

STATE APPRENTICESHIP AGENCIES

Arizona Apprenticeship Council
1623 B West Adams
Phoenix, Ariz. 85007

Division of Apprenticeship
Standards
Department of Industrial Relations
455 Golden Gate Avenue
P.O. Box 603
San Francisco, Calif. 94102

Colorado Apprenticeship Council
Industrial Commission Offices
200 East Ninth Avenue, Room 216
Denver, Colo. 80203

Apprentice Training Division
Labor Department
200 Folly Brook Boulevard
Wethersfield, Conn. 06109

Delaware State Apprenticeship and
Training Council
Department of Labor and Industry
618 North Union Street
Wilmington, Del. 19805

District of Columbia Apprenticeship
Council
555 Pennsylvania Avenue, NW., Room 307
Washington, D.C. 20212

Bureau of Apprenticeship
Florida Department of Commerce
Caldwell Building
Tallahassee, Fla. 32304

Apprenticeship Division
Department of Labor and Industrial
Relations
825 Milliani Street
Honolulu, Hawaii 96813

Apprentice Training Division /
Kansas Apprenticeship Council
Department of Labor
401 Topeka Boulevard
Topeka, Kans. 66603

Kentucky State Apprenticeship
Council
Department of Labor
Frankfort, Ky. 40601

Division of Apprenticeship
Department of Labor
State Capitol Annex
Baton Rouge, La. 70804

Maine Apprenticeship Council
Department of Labor and Industry
State Office Building
Augusta, Maine 04330

Maryland Apprenticeship and
Training Council
Department of Labor and Industry
203 East Baltimore Street
Baltimore, Md. 21202

Division of Apprentice Training
Department of Labor and Industries
State Office Building
Government Center,
100 Cambridge Street
Boston, Mass. 02202

Division of Voluntary
Apprenticeship
Department of Labor and Industry
110 State Office Building
St. Paul, Minn. 55101

Montana State Apprenticeship
Council
Division of Labor Standards
1331 Helena Avenue
Helena, Mont. 59601

Nevada Apprenticeship Council
Department of Labor
Capitol Building
Carson City, Nev. 89701

New Hampshire Apprenticeship
Council
Department of Labor
State House Annex
Concord, N.H. 03301

New Mexico Apprenticeship Council
Labor and Industrial Commission
1010 National Building
505 Marquette, NW.
Albuquerque, N.Mex. 87101

Bureau of Apprentice Training
Department of Labor
The Campus, Building No. 12
Albany, N.Y. 12226

Division of Apprenticeship Training
Department of Labor
Raleigh, N.C. 27602

Ohio State Apprenticeship Council
Department of Industrial Relations
220 Parsons Avenue, Room 314,
Columbus, Ohio 43215

Apprenticeship and Training Division
Oregon Bureau of Labor
Labor & Industry Building, Room 115,
Salem, Oreg. 97310

Pennsylvania Apprenticeship and
Training Council
Department of Labor and Industry
Labor and Industry Building, Room 1547
Harrisburg, Pa. 17120

Apprenticeship Division
Department of Labor
414 Barboza Avenue
Hato Rey, P.R. 00917

Rhode Island Apprenticeship Council
Department of Labor
236 Promenade Street
Providence, R.I. 02908

Utah Apprenticeship Council
Industrial Commission
431 South Sixth, East, Room 226,
Salt Lake City, Utah 84102

Vermont Apprenticeship Council
Department of Industrial Relations
State Office Building
Montpelier, Vt. 05602

Division of Apprenticeship Training
Department of Labor and Industry
P.O. Box 1814
Room 344, Ninth Street Office Building
Richmond, Va. 23214

Director of Apprenticeship and
Training
Department of Labor
Christiansted, St. Croix, V.I. 00820

Apprenticeship Division
Washington State
Department of Labor and
Industries
318 East Fourth Avenue
Olympia, Wash. 98504

Division of Apprenticeship and
Training
P.O. Box 2209
Madison, Wisc. 53701

/ All agencies, with the exception of Kansas, operate under apprenticeship and/or training laws enacted by the legislature. The agency in Kansas functions under executive order of the Governor.

REGIONAL OFFICES

BUREAU OF APPRENTICESHIP AND TRAINING

Location	States Served	
Region I John F. Kennedy Federal Bldg., Room 1703-A Government Center Boston, Mass. 02203	Connecticut Maine Massachusetts	New Hampshire Rhode Island Vermont
Region II 1515 Broadway, 37th Floor New York, N.Y. 10036	New Jersey New York	Puerto Rico Virgin Islands
Region III P.O. Box 8796 Philadelphia, Pa. 19101	Delaware Maryland Pennsylvania	Virginia West Virginia
Region IV 1317 Peachtree Street, NE., Room 700 Atlanta, Ga. 30309	Alabama Florida Georgia Kentucky	Mississippi North Carolina South Carolina Tennessee
Region V 300 South Wacker Drive, 13th Floor Chicago, Ill. 60606	Illinois Indiana Michigan	Minnesota Ohio Wisconsin
Region VI 1512 Commerce Street, Room 704 Dallas, Tex. 75201	Arkansas Louisiana New Mexico	Oklahoma Texas
Region VII Federal Office Bldg., Room 2107 911 Walnut Street Kansas City, Mo. 64106	Iowa Kansas	Missouri Nebraska
Region VIII Republic Bldg., Room 232A 1612 Tremont Place Denver, Colo. 80202	Colorado Montana North Dakota	South Dakota Utah Wyoming
Region IX 450 Golden Gate Avenue, Room 9001 P.O. Box 36017 San Francisco, Calif. 94102	Arizona California	Hawaii Nevada
Region X Arcade Plaza Bldg., Room 2055 1321 Second Avenue Seattle, Wash. 98101	Alaska Idaho	Oregon Washington

Certificate of Completion of Apprenticeship

United States Department of Labor

Bureau of Apprenticeship and Training

This is to certify that

has completed an apprenticeship in the trade of

under sponsorship of

*in accordance with the standards recommended by the
Federal Committee on Apprenticeship*



[Signature]

[Signature]

[Signature]
