FELLOW OF ASSOCIATION OF SCHOOLS & COLLEGES OF OPTOMETRY

Fellowship Certification Guide

Vision Therapy

An initiative of

ASCO

Association of Schools and Colleges of Optometry

www.asco-india.org

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Welcome

Association of Schools and Colleges of Optometry (ASCO) welcomes optometrists to enroll in the Fellowship program in Contact Lenses. This guide provides information on the enrolment process, eligibility, examination and maintenance of the Fellowship.

What is FASCO?

A fellow of the Association of Schools and Colleges of Optometry (FASCO) is one who has demonstrated advanced competency in a chosen specialty.

Benefits of FASCO

- **The fellowship process is mentored by a specialist peer in the chosen field**
- **The process encourages continuous learning and culminates in an evaluation that clearly demonstrates advanced skill, deeper understanding of concepts and competency in the chosen speciality**
- **The case based approach helps the fellow in understanding the depth of the subjects**
- **It helps in logical thinking and improves the philosophies of the fellows**
- **Earn 10 OCI credit points on completion of the fellowship**

FASCO Process Overview

Eligibility and Enrollment:

- Candidates must be optometrists (4-year Programme) from recognized university
- International candidates must be optometrists or the equivalents there of in a country other than India.
- The first step is to complete the Fellowship Application Form https://forms.office.com/r/5RgJLYxMMx
- Once your application is accepted, your enrolment period begins.
- Once enrolled you have up to 3 years (from the date of enrolment) to complete the fellowship process. Candidates may enrol for additional enrolment periods.
  - Fees paid in the initial enrolment periods do not carry over to subsequent re-enrolment request.
- Timeline – It is the responsibility of the candidate to follow the Fellowship (Appendix A) and submit all materials prior to or on the deadline date.

Fees:

For SAARC Countries

- Fellowship fee – Rs 20,000 + 3600 (18% GST)

Other than SAARC Countries

- Fellowship Application fee- USD 500
- Examination fess - USD 250 (to be paid just before the MCE exam and oral interview)
- Total: USD 750

Account Details

NEFT (bank details given below)
ACCOUNT NAME: ASSOCIATION OF SCHOOLS & COLLEGES OF OPTOMETRY BANK NAME:
BANK: Axis Bank Limited
ADDRESS: New Vasna, Ahmedabad, Gujarat-380055
TYPE OF ACCOUNTS: - SAVING
A/C NO.: 923010025091800
IFSC Code: UTIB0004667

Phase 1 – Guided Study

The Guided Study phase of the Fellowship process is designed to facilitate study through completion of two personal contact programs with mentor, Open Book Questions and Case Reports. The goal is to provide you with the opportunity to expand your knowledge base and to discuss the rationale for treatment of treatment of different of different types of visual disorders in contact lenses.

- Upon successful registration for fellowship each candidate will be assigned a mentor.
- Each candidate will also be given access to the ASCO web portal to access presentations (access details appendix B).
- The first personal contact programme with mentor will be conducted at the beginning of the fellowship process for a period of 4-5 days - dates and venue chosen by the mentor. Cost of stay and travel to be borne by the candidate. This contact programme will initiate the candidate into the fellowship process by way of didactic lectures and hands on training.
- The 2nd contact programme for a period of 4-5 days will be conducted towards the end of the 1st year of fellowship registration - dates and venue chosen by the mentor. Cost of stay and travel to be borne by the candidate. This programme will include discussions, problem solving, didactic lectures

and hands on training.

- The candidate will be required to complete 6 open book assignments and 3 case presentations.
- SeeFormat. Submission and Review guidelines for OBQs and Case reports.

Phase 2 - Final Exam

The phase in the Fellowship process includes Multiple Choice Examination (MCE) and Oral interview. Examination fee (Rs. 5000/-) has to be paid prior to sitting for the exam.

ELIGIBILITY

- The candidate will be required to accumulate 50 credit points to be eligible to sit for the MCE and oral interview
- The credit point break up is as follows (Total Credit points= 50)
- Open book assignment = 15 credit point
- case presentation = 15 points
- ASCO verified portal = 10 points (Each presentation has credit points based on the level of learning)
- Conference/workshop/COE = 10 credit points (The number of conferences/workshops/COEs attended during the period of fellowship registration)

FELLOWSHIP EXAM

- The multiple choice examination (MCE) = 30 marks.
- The oral interview = 20 marks.
- Minimum of 25 marks has to be scored (MCE and oral interview) to be conferred the fellowship.

Phase 3 – Maintenance of Certification

Fellows must provide the following to the ASCO office prior to the expiration of Certification: A minimum of seventy-five (75) total continuing education hours average over a 5 year period (15 hours/year); Current Curriculum Vitae. There is no recertification fee for those who have maintained continuous Certification every five years. For those who allowed their Certification to lapse at the end of five years, there is a recertification fee of Rs. 5000/-

Learning objectives and Study outline

The Fellowship process is designed to help you expand your knowledge base in all aspects of Low Vision. Advanced competency is expected in the following principles and procedures for the chosen specialty. The first phase of your fellowship process will help you obtain and articulate a deeper understanding of these concepts. The examination phase will further explore your understanding of these issues.

Syllabus – Vision Therapy

1. Principles and Procedures –

You should be able to define and explain:

a. The unique qualities, scientific, and clinical principles of each clinical condition.
b. The epidemiological and demographic characteristics of each clinical condition.
c. The characteristic history, signs and symptoms for each clinical condition.
d. How to assess each clinical condition, including specific test protocols and their interpretation
e. The differential diagnosis for clinical conditions.
f. The specific treatment and management of each clinical condition including:
    i. Prognostic indicators
    ii. Treatment options
    iii. Duration and frequency of treatment
    iv. Treatment philosophy and goals
    v. Specific lens treatment and therapy procedures including rationale for treatment
    vi. Ergonomics and visual hygiene
    vii. Outcomes to determine successful completion of treatment
    viii. Frequency of follow-up care and patient instructions
    ix. Referral criteria (medical, neurological, educational, etc.)

2. Clinical Conditions

A. Strabismus and Amblyopia:

1. Amblyopia:

a. Anisometropic / Isometropic Refractive Amblyopia
b. Strabismic Amblyopia
c. Hysterical Amblyopia
d. Form Deprivation Amblyopia
e. Differential diagnoses in childhood visual acuity loss

2. Strabismus:

a. Esotropia: i. Infantile, ii. Accommodative, iii. Acquired, iv. Microtropia, v. Sensory vi. Convergence Excess, vii. Divergence Insufficiency, viii. Non-accommodative, ix. Sensory Adaptations.
b. Exotropia: i. Divergence Excess ii. Convergence Insufficiency iii. Basic Exotropia iv. Congenital v. Sensory.
c. Vertical Deviations :
d. Non-comitant Deviations (AV Syndrome; Duane's Retraction Syndrome; Brown's Syndrome; III, IV, VI nerve palsy, etc.)
e. Differential diagnoses in strabismus

f. Special clinical considerations:
g. Anomalous Correspondence
h. Eccentric Fixation
i. Suppression
j. Motor Ranges
k. Stereopsis
l. Horror fusionalis / intractable diplopia

B. Growth and Development:

1. Visual

a. Infant vision (normal and abnormal ranges of refractive status in infant, toddler, and preschool Populations)
b. Acuity / Binocularity / Stereopsis / Accommodation
c. Neurological / Cognitive / Behavioural
d. Developmental milestones
e. Piaget stages of development

C. Perception and Information Processing:

1. Neurological / Psychological

a. Ambient / focal systems.
b. Visual perceptual midline
c. Parvo cellular / Magno cellular function
d. Perceptual Style (central, peripheral)
e. Impact of colored filters
f. Attention

2. Intercessory and Sensorimotor Integration

a. Visual-auditory
b. Visual-vestibular
c. Visual-oral
d. Visual-motor
e. Visual-tactual

3. Performance indicators

a. Laterality and directionality
b. Visual requirements for academic success
c. Bilaterality
d. Gross and fine motor ability
e. Form perception/visual analysis
f. Spatial awareness
g. Visualization
h. Visual memory

i. Visual sequential memory
j. Form constancy
k. Visual speed and visual span
l. Visual sequencing

D. Refractive conditions and visual skills:

1. Refractive Conditions

a. Developmental influence on refraction & emmetropization
b. Aniseikonia
c. Myopia
d. Astigmatism
e. Hyperopia

2. Ocular Motor Function

a. Eye movements and reading
b. Pursuit dysfunctions
c. Nystagmus
d. Saccadic Dysfunctions

3. Accommodation

a. Role in myopia development
b. Role in computer-related asthenopia

4. Fusion in Non-Strabismic Conditions

a. Fixation disparity
b. Motor fusion
c. Sensory fusion

E. Special clinical conditions:

1. Acquired brain injury (traumatic brain injury {TBI} and stroke)
2. Developmental disabilities (Down Syndrome, Developmental delay, etc.)
3. Visually induced balance disorders
4. Motor disabilities (Cerebral Palsy, ataxia, etc.)
5. Behavioural disorders
6. Autism spectrum disorders
7. ADD / ADHD
8. Dyslexia and specific reading disabilities
9. Learning Disabilities
10. Computer Vision Syndrome

2. **Vision Therapy Concepts to Consider: (You should be able to define and explain)**
   a. Peripheral awareness: focal / ambient roles.
   b. Significant findings which are good or poor prognostic indicators of vision therapy and lens application
   c. Development, rehabilitation, prevention, enhancement
   d. Behavioural lens application
   e. Yoked prism rationale for treatment and application
   f. The relationship between the visual and vestibular systems
   g. SILO/SOLI
   h. Visual stress and its impact on the visual system
   i. Role of posture in vision development, comfort and performance
   j. Disruptive therapy: Discuss this type of therapy and how it can be used as a clinical therapeutic tool.
   k. Relationship of speech-auditory to vision
   l. How television, reading, video gaming might, restricted movement, computer work, nutrition, etc., impact vision?
   m. Perceptual Style, e.g., spatial/temporal, central/peripheral

Appendix C – Recommended Study material

Open Book Questions

1. From a developmental and behavioural perspective, discuss tests and treatment related to accommodative abnormalities. This may include: accommodative insufficiency, infacility, lack of sustainability, and excess. Discuss how you decide if lenses, prisms and/or vision therapy are indicated an outline your treatmentplan.

2. From a developmental and behavioural perspective, discuss tests and treatment related to non-strabismic binocular abnormalities. These conditions may include: convergence insufficiency, convergence excess, divergence insufficiency, divergence excess and vertical deviations. Discuss how you decideiflenses,prisms,and/orvisiontherapyareindicatedand outline your treatmentplan.

3. From a developmental and behavioural perspective discuss tests and treatment related to strabismus and amblyopia. These tests should include; but not be limited to, evaluation of anomalous correspondence and eccentric fixation. Discuss your treatment modalities for strabismus and amblyopia including occlusion/penalization therapy. Describe how these tests help you decide which treatment is indicated including referral, lenses, prisms and/or vision therapy and outline your treatment plan.

4. Explain how developmental milestones can impact visual information processing and behaviour relative to academic performance.

5. Discuss the application of lenses and prisms beyond refractive and prismatic compensation. Include the influence of lenses and prisms on visual stress, visual behaviour, visual development, and in vision therapy/rehabilitation.

6. Describe your model of vision and how it was derived. Include in it your definition of vision and how vision influences a person's development and behaviour.

Case Study

Before preparing your case reports, thoroughly read Format, Submission, and Review guidelines for Open Book Questions (OBQs) and Case Reports.

A. Case Report Topics:

1. Learning Related Visual Perceptual/Visual Information Processing Deficits. A case where the patient's deficits that impact learning are primarily because of anomalies of pursuit and/ or saccadic eye movements, and/ or accommodation, and/or strabismus and/or non- strabismic binocular anomalies, will not be accepted.

2. Strabismus: The report must include the findings of a thorough strabismic diagnostic protocol and a detailed description of the optometric vision therapy that was conducted. The report of a patient whose strabismus resolves as the result of compensatory lenses, such as a fully compensated accommodative esotropia, or the use of minus lenses to induce accommodative convergence in a case of exotropia, is also not acceptable.

3. Lens Treatment (Non-compensatory): The case should specify the diagnosis (es) and the use of lenses, prisms, filters, and/or sector occlusion with no active vision therapy as the treatment. Include a discussion of how the treatment impacted the patient's visual stress, visual behaviour and visual development.

B. Content of Case Reports

All case reports must contain the following sections (your final draft must address all ten of the content headings listed below. Please limit to no more than 15 pages double-spaced:

1. Type of Case: (i.e., Learning-related, Strabismus/Amblyopia, or Lens Treatment) noted on top of each page.
2. History: Patient initials (do not use patient's name on any materials); entering complaint; signs and symptoms; onset, frequency and severity of symptoms; significant developmental and educational history; brief summary of previous evaluations; pertinent family eye and medical history; patient's medical history and medications.

3. Diagnostic Data: List all tests by name. List results and observations (quantitative & qualitative). Tests should rule out and define problems.
4. Diagnosis or Diagnoses: Diagnosis should be supported by history, test results, and observations. Relevant interpretation of the data should also be included.
5. Prognosis: The patient's and your goals should be listed. Also, the prognosis for reaching the goals should be provided.
6. Treatment: Lenses and prisms initially prescribed & rationale; summarize therapeutic procedures including order of implementation and purpose of procedures chosen; frequency of visits; duration of treatment; progress evaluations and resulting changes in therapy Process.
7. Outcome of Case: Results of treatment; impressions of results; whether patient's goals and doctor's goals were met; and changes in performance.
8. Follow-Up Care: Disposition of case with results; future considerations; final prognosis; subsequent care.
9. Critique:

a. Are there any general or specific items in this case that did not make sense?
b. Are there any additional tests that, in hindsight, you might have performed during the original or progress evaluation(s)?
c. Are there any therapeutic techniques you wish you had, in hindsight, utilized?
d. Who was more satisfied with the outcome; doctor, patient or patient's family?
e. What would you have done differently? What did you learn?

10. Submit a copy of a typed report you have sent to another health care or related professional as an example of your office communication concerning one of your three cases. (Be sure to delete your patient's name as well as your own.)

Format, Submission and Review guidelines for OBQs and Case reports

OBQs

- Each response should be no less than one page and no more than five pages, double spaced.
- At top of first page, type OBQ # and type the question in its entirety.

Case Reports

- No more than 15 pages, double spaced.
- At top of first page, list the Type of Case

Copies of forms, letters, and reports may be scanned and sent separately as Adobe (.pdf) files. When including a copy of a form, letter, or report on your letterhead, delete or black out any information that identifies you or patient.

1. Write in a clear and concise manner and proof read your materials carefully. Remember to use the spell check.
2. Record the numerical findings and pertinent patient's behavioral changes of all your clinical tests.
3. Use standard optometric terminology. Reviewers may not understand your clinical "shorthand" or conventions.
4. Photocopies of VT work-ups, chart/file notes are not acceptable.
5. Each OBQ and Case Report must be submitted as a separate file. Files submitted which contain more than one OBQ or Case Report will not be processed.

Mentors

The mentor, a specialist peer in Vision Therapy, will review every submission of the mentee and will write back with comments and observations. In addition mentor will organize two one-week contact programs during the Fellowship process- One at the beginning of the fellowship and the second towards the end of the fellowship process. The mentor need not be located in the same place as mentee. Travel and other related costs will be borne by the mentee.

From the choice of mentors provided, candidates are free to select three and list them order of preference.

Mentor 1_____
Mentor 2_____
Mentor 3_____

Appendix D –List of mentors with Vision Therapy

Appendix A

Fellowship process timeline

Important please note: Answers to the three open book questions (OBQs), and 3 case reports must be uploaded/sent electronically to mentor and marked copy to coordinator. The normal review may take two weeks per assignment/case report. If the mentor requests more information (revisions/corrections on the assignment) then additional 2 weeks may be required for review. Please plan your submissions accordingly.

Should you wish to complete the fellowship within a year, following is the timeframe.

Call for registrations towards fellowship

Allocation of mentors and verified portal access given to each candidate

Within 1 months: Induction to the programme electronically and 1st contact programme

Next 6 month – all Open book questions due (All assignments need to be reviewed and approved by the mentor)

Next 3 months – Case reports due

Revision policy: If the mentor seeks revisions/corrections in your submissions you will need to reply with the corrections no later than 2 weeks from the date mail received from mentor.

In 10 months – All 6 OBQs and 3 case reports must be submitted

Note: In order to be eligible to take the multiple choice questions (MCQs) written exam and viva voce, a candidate must have successfully completed all the open book questions and case reports. Once completed, you will be notified about your eligibility.

50 credit points must be accumulated to be eligible to sit for FASCO exams and viva

By 11th month of enrolment – Announcement of eligible candidates for fellowship exam, Announcement of date and venue for the written examination and viva.

APPENDIX B

ASCO web portal access instruction

A web link will be provided to all registered candidates of the fellowship programme of ASCO to access the ASCO verified web portal.

APPENDIX C

Recommended study material for Vision Therapy

Research articles and suggested journals would be shared with the candidates by the mentors during the course of their fellowship

Reference Textbooks

1. CalorosoEandRouseMW. ClinicalManagementofStrabismus. Boston: Butterworth-Heinemann 1993.
2. Griffin JR and Grisham JD. Binocular Anomalies-Diagnosis and Vision Therapy, 4th Edition. Boston: Butterworth-Heinemann2002.
3. PressLJ. AppliedConceptsofVisionTherapy. SantaAna: Optometric Extension Program 2008.
4. Rutstein RP and Daum KM. Anomalies of Binocular Vision-Diagnosis and Management. St. Louis: Mosby 1998.
5. Scheiman M and Wick B. Clinical Management of Binocular Vision: Heterophoric, Accommodative and Eye Movement Disorders, 4th Edition. Philadelphia: Lippincott, Williams and Wilkins 2014.
6. Steinman SB, Steinman BA and Garzia RP. Foundations of Binocular Vision-A Clinical Perspective. New York:McGraw-Hill 2000.
7. Suter PS and Harvey LH. Vision Rehabilitation-Multidisciplinary Care of Patients Following Brain Injury. New York:CRC Press 2011.

Appendix D

List of mentors for Vision Therapy

1. Name: Prof. Aditya Goyal M.Optom, FCOVD
   Affiliation: Principal, Sankara College of Optometry City, Chennai
   Email id: adityagoyal@hotmail.com

2. Name: Mr. Prem Kumar Singh
   Affiliation: In charge, Optometry sciences and specialized in Paediatric Optometry, Orthoptics, Vision therapy and Prism dispensing, Dr. Shroff's Charity eye hospital, Delhi
   Email id: optomprem@gmail.com

3. Name: Ms. Sonia Sharma
   Affiliation: Paediatric Optometrist, Dr Shroff's Charity Eye Hospital, Delhi
   Email id: soniaoptom@hotmail.com

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