

OPHTHALMOLOGY GUIDEBOOK



A CLEAR PERSPECTIVE

A comprehensive guide towards an Ophthalmology career and Match

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Veritas Longitudinal Elective

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Chapter 1. Introduction

Welcome to the field of ophthalmology! The gift of sight is considered by many to be the most important of all senses. Ophthalmologists can have a profound impact on their patient's lives. This is an extraordinary specialty that is constantly changing and advancing. It encompasses the very best of medicine and surgery to preserve and even restore vision.

During medical school, medical students may or may not gain exposure to ophthalmology. Most medical students will seek out mentors based on their interest. This guide is to help you find opportunities available in ophthalmology.

To become an ophthalmologist, medical students must undergo a unique application and match process. Unlike most other specialties which apply to ERAS only, there are two different application services for ophthalmology. In addition to ERAS, ophthalmology applicants also apply to the San Francisco Match (SF Match), which is dedicated to the ophthalmology specialty. Furthermore, the SF Match application deadlines are approximately one month earlier than the ERAS, thus requiring earlier preparation. As a result, ophthalmology participates in its own Match Day. This guidebook will hopefully serve as useful resource for navigating the application and match process.

Good luck on your future endeavors!

Chapter 2. Ophthalmology Tracks

Ophthalmology is a 4-year residency which encompasses 1 year of internship + 3 years of ophthalmology. Within ophthalmology a wide spectrum of subspecialties is offered. Certain tracks provide greater opportunities to be in the operating room, while others focus on medical management. Most ophthalmology programs will have access to explore these different tracks. Some programs will offer Fellowship training after residency. Physicians can pursue as many fellowship opportunities as desired. The following is a sample of common tracks in ophthalmology, but other specializations are possible.

Comprehensive Ophthalmology

No Fellowship Required

Once a residency in ophthalmology is fulfilled, an ophthalmologist can practice in the community as a comprehensive ophthalmologist. The physician provides care for all types of ocular conditions and surrounding structures such as cataracts, ocular surface disorders, glaucoma, diabetic retinopathy, and macular degeneration. Comprehensive ophthalmologists incorporate both clinical and surgical practice. Most patients visit their ophthalmologist to have comprehensive eye exams and obtain consultations in all areas of ophthalmology.

Cornea, External, & Refractive Surgery

1-2 Year Fellowship

This subspecialty provides greater specialization of the anterior portion of the eye. Specialized physicians diagnose and manage acute or chronic conditions related to the lids, conjunctiva, cornea, sclera, and anterior segment. The patient population often experiences red eyes and/or visual impairment caused by corneal dystrophies such as Keratoconus or Fuch's Dystrophy. Other conditions seen include corneal inflammation, scarring, and ulcers, dry eye, and even surface tumors such as conjunctival melanomas. Fellowship training emphasizes surgical time performing corneal transplantation including penetrating and lamellar keratoplasties as well as a wide range of cataract procedures and refractive surgeries such as LASIK.

Retina

Physicians trained in the retina specialize in conditions in the posterior segment of the eye. There are 2 opportunities to study the retina – medical retina supports the non-surgical diseases of the retina while vitreoretinal surgery specializes in the operative aspects of retina pathology.

Medical Retina

1 Year Fellowship

Medical retina training offers the latest in medical management of vitreoretinal diseases including some uveitis and eye tumor exposure. The conditions medical retina typically sees are macular degeneration, diabetic retinopathy, vessel occlusion, macular hole and traction, peripheral retinal disorders, and many inflammatory and infectious conditions. Physicians perform common and advanced office procedures such as injections and lasers.

Vitreoretinal Surgery

2 Year Fellowship

Vitreoretinal surgery offers in depth surgical training to treat a wide variety of complex retinal diseases. This includes retinal detachments, diabetic retinopathy, inherited vitreoretinal disorders, retinopathy of prematurity and macular degeneration. These surgeons manage screening, treatment, and outpatient follow-up.

Uveitis

1 Year Fellowship

Uveitis specialists learn to diagnose and treat a wide range of inflammatory conditions. These may include scleritis and uveitis in the anterior, intermediate, and posterior segments of the eye. Such conditions are often caused by systemic and infectious disease processes such as sarcoidosis, toxoplasmosis, syphilis, Behcets, etc. Physicians are experienced with medical and surgical management of ocular inflammation. They are knowledgeable about a wide range of treatment modalities such as NSAIDs, steroids, immunosuppressive agents and biologics for treatment.

Glaucoma

1 Year Fellowship

With Glaucoma being the leading cause of irreversible blindness worldwide, many ophthalmologists dedicate their careers to understanding, diagnosing, and managing this disease. Recent advances in ocular imaging allow physicians to investigate damage to the optic nerve. Glaucoma specialists employ various treatment options to reach a therapeutic goal for patients of all ages. These include medications, laser therapy, traditional glaucoma tube procedures, and the newest technology known as Micro-Invasive Glaucoma Surgery (MIGS).

Pediatric Ophthalmology & Adult Strabismus

1-2 Year Fellowship

For ophthalmologists who love to be around kids, pediatric ophthalmology is dedicated to treating eye conditions of childhood. Along with routine eye examinations, pediatric ophthalmologists screen and diagnose for strabismus, amblyopia, as well as ocular tumors. This specialist often sees complex genetic syndromes that begin to manifest with development. Pediatric ophthalmologists are very skilled in performing strabismus surgeries and often manage adult cases as well.

Neuro-Ophthalmology

1 Year Fellowship

Patients with complaints of diplopia or have neurological disorders often require the expertise of neuro-ophthalmologists. These physicians manage the relationship between the eye and the brain. These conditions may include optic nerve issues, as well as any condition of the brain that affects vision. The neuro-ophthalmologist covers a broad spectrum of ocular pathology such as systemic diseases like multiple sclerosis, ocular motility dysfunction, and pupillary abnormalities.

Oculoplastic Surgery

2 Year Fellowship

The oculo-facial plastic surgeon performs state-of-the-art surgery for reconstructive and aesthetic purposes. Training involves lid reconstruction, traumatic orbit repair, and treatment and prevention of facial cancers. This multidisciplinary career path is for those who enjoy delicate artistic procedures.

Ocular Pathology

1 Year Fellowship

The ocular pathologist provides vital information towards understanding the diverse pathologies of the eye. They focus on the anatomical and histological features. Physicians who interact with ocular tumors daily work together with ocular pathologists to determine tumor features for proper treatment.

Ocular Oncology

1 Year Fellowship

This highly specialized career builds experience in managing all forms of ocular tumors. It covers a wide population range from children to adults. Common pediatric cases include retinoblastoma. In adults, common places for tumors to occur are on the eyelid, conjunctiva cornea, and retina. Management of tumors may be medical or surgical.

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Chapter 3. Get Involved

From shadowing faculty to participating in student run clinics, getting involved in ophthalmology is an exciting experience! Due to its specialization, most students have to seek out ophthalmology experience, but luckily San Antonio has a great number of opportunities to choose from. Below is a list of current faculty at UTHSA and community outreach to help you succeed. The Ophthalmology Department Coordinator can help set up some shadowing time.

Faculty

Comprehensive

Carlos Rosende Frank Scribbick

Cornea

Daniel Johnson – Department Chair Kent Anderson – Program Director Brian Planchard

Glaucoma

Corey Waldman – Assistant Program Director

Neuro-Ophthalmology

John Carter

Oculo-Plastic

Constance Fry

Oculo-Pathology

Frank Scribbick

Ocular Oncology

Constance Fry

Pediatric Ophthalmology

Martha Schatz

Retina-Vitreous

Judianne Kellaway Jeong-Hyeon (John) Sohn

Uveitis

Daniel Johnson – Department Chair Jeong-Hyeon (John) Sohn

Community Outreach

UT Health Eye Clinic

The UT Health Eye Clinic is located on the 2nd floor of the University Hospital. This location manages the acute conditions of the eye that come through the hospital and emergency department. Students may schedule time to shadow faculty and residents.

UTHSA Ophthalmology Interest Group

The ophthalmology interest group is open to all who are interested in exploring ophthalmology. Meetings are held every semester with guest speakers from the Department of Ophthalmology. For more information please visit: https://www.facebook.com/groups/UTHSAOIG/

Mobile Eye Screening Clinic

Since 1996, the Lions Clubs of Lions International District have operated a Mobile Eye Screening Unit (MESU) on a 40-foot modified bus platform. The MESU is designed to accommodate multiple missions and can be configured for public vision screening or with research work stations. The basic mission of the MESU program is to provide free vision screenings for the general public. The MESU travels throughout South Central Texas and has screened over 65,000 people since 1996. Starting in the Spring of 2013, the Lions partnered with the Department of Ophthalmology to include Medical Students in a Joint Community Vision Screening Program. To learn more please visit: http://www.studentrunclinics.org/about our clinics

Medical Student Rotations

Medical students have 4 rotation opportunities with the Department of Ophthalmology.

OPHT 4000 – Special Topics

4 weeks – 4 Credit Hours

Medical Elective – Permission Required

A self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

OPHT 4001 – Clinical Ophthalmology

4 weeks – 4 Credit Hours

Medical Elective – Permission Required

The goal of this course is to equip students with the skills necessary to master an appropriate ocular history and demonstrate the clinical skills required for a complete eye evaluation. There will be an opportunity to observe ophthalmology faculty and residents performing examinations, consultations, minor procedures, laser procedures, and major operative surgeries in several subspecialties of ophthalmology. Attire: Professional unless in the OR. Call: While not required, taking ophthalmology call is highly encouraged as it is an excellent example of ophthalmology resident duties. We encourage all medical students to discuss this with their faculty mentor and a first- or second-year resident.

OPHT 4003 – Clinical Ophthalmology Research

4 weeks – 4 Credit Hours

Medical Elective – Permission Required

The student is required to design and carry out a clinical project, review of literature, chart review, etc., with approval and guidance by instructor. The student also is required to participate with faculty instructors in seeing private patients, observing surgery, scheduled teaching conferences and Journal Club.

OPHT 7000 – Off Campus Ophthalmology

4 weeks - 4 Credit Hours

Medical Elective – Permission Required

All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: "Course Approval" form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off-campus location or residence address for the student while at the offcampus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

For more information on how to get connected as a medical student, contact the Department of Ophthalmology Director for Medical Student Education.

Chapter 4. The 8-Point Eye Exam

1. Visual Acuity

- a. Measure with Correction Snellen
- b. Pinhole Occluder for Uncorrected Refractive Error
- c. Poor Vision:
 - i. CF Count Fingers
 - ii. HM Hand Motion Only
 - iii. LP Light Perception
 - iv. NLP No Light Perception

2. Pupils

- a. Size and Shape Anisocoria?
- b. Light Reaction
- c. Swinging Flashlight Relative Afferent Pupillary Defect (RAPD)?

3. Motility

- a. Alignment (Hirschberg)
- b. Ocular Motility Ductions and Versions
- c. Cover Tests Deviations and Heterotopias
- d. Convergence

4. Intraocular Pressure

- a. Goldmann Applanation
- b. Tono-Pen

5. Confrontation Visual Fields

6. External Exam

- a. Lymph nodes
- b. Lids (Fissures, Position, Levator Function) Ptosis? Lagophthalmos? Proptosis?
- c. Lesions
- d. Cranial Nerve Exam

7. Slit Lamp Exam

- a. Lids/Lashes/Lacrimal System Normal Anatomy and Contours? Lesions?
- b. Conjunctiva/Sclera White and Quiet? Injection? Lesions?
- c. Cornea Clear? Epithelial Disruptions? Stromal Opacities? Endothelial Lesions?
- d. Anterior Chamber Deep? Cells? Flare?
- e. Iris Round Pupil? Transillumination Defects? Nodules?
- f. Lens Clear? Nuclear, Cortical, Or Subcapsular Cataract?
- g. Anterior Vitreous Inflammation? Hemorrhage? Pigmented Cells?

8. Funduscopic Exam

- a. Optic Nerve Cup-To-Disc Ratio? Focal Thinning? Pallor? Symmetric?
- b. Macula Foveal Light Reflex? Drusen, Edema or Exudates?
- c. Blood Vessels Contour and Size? Intra-Retinal Hemorrhage?
- d. Periphery Tears or Holes? Lesions? Pigmentary Changes?

References

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- 2. "Medical Student Elective Welcome Packet." Department of Ophthalmology Education Office. San Antonio, Texas. *University of Texas Health – San Antonio* 2017. Print.
- 3. Rupp, Jason D. "The 8-Point Eye Exam." American Academy of Ophthalmology 2016. Web.

Chapter 5. Away Rotations

Starting Jan 22, 2018 – the VSAS application will be relaunched as the AAMC Visiting Student Learning Opportunities. This may affect the application process. More updates will be provided soon. For more information: https://www.aamc.org/services/visitingstudent/

Forward

During your 4th year you may elect to take an away rotation at another institution. Many students choose to do this, but it is not mandatory. Away electives give you the opportunity to get to know the program and staff, and may potentially increase the chance for obtaining an interview. However, the opposite can also happen. Making a bad impression can hurt your chances of interviewing at the away program. Away rotations do not guarantee an interview invitation. It also does not hurt your odds of matching at another institution. Talk to faculty and upperclassmen to determine if away rotations will be beneficial to you.

The Application: Visiting Student Application Service (VSAS)

- Each student receives 15 authorizations to start applying. More authorizations will be automatically given when the authorizations go below five
- After an application is submitted through VSAS, the Senior Administrative Assistant in the UME receives an email alert the following day of pending applications. VSAS is checked daily and more often during the busy season.
- Your application is not automatically forwarded to the Host Institution. It comes through the Office of Student Affairs first for verification. The first time you submit an application your transcript will be uploaded. After your transcript is uploaded and application is verified it is then released to the Host Institution. The turn-around time for this process is approximately 24-48 hours.
- After the application is released, you are still able to make changes on your application profile and additional documents can be uploaded as needed.

Transcripts

- Transcripts are requested for all students from Registrar's Office by the Office of Student Affairs. You will not need to personally request the transcript.
- Your transcript will automatically be uploaded to your VSAS application profile only after you have applied for your 1st rotation. It is not necessary to request that your transcript be uploaded.

Immunizations

- Each Host Institution requires the completion of an immunization form that should be uploaded under "Immunization Form." This option does not appear until you submit your application.
- Some institutions use a standardized form that can be used for multiple institutions while some require you to have one specifically for their institution filled out.
- Immunization forms are completed by the Student Health Clinic located in the Nursing School

- Remember, submit your application first or VSAS will not give you the option to submit the immunization form.
- You MUST have a completed immunization form when you apply. However, if you are in the process of being re-immunized, you can attach your form, the first titer draw values, and a letter from your PCP or the health center stating that you are being re-immunized.

Obtaining Elective Credit

- Away rotations can earn elective credit in Ophthalmology at UTHSA.
- You will need to sign up for OPHT 7000 to receive credit.
- Enrollment for this course requires permission of 1. The Ophthalmology Department, 2. UME Office, and 3. The Registrar's Office.
- Once you accept a VSAS away elective, keep a record the program acceptance letter or screenshot the VSAS tab of scheduled electives
- Next find the Course Description of the scheduled elective. This may be found on VSAS website or at the individual Host institution webpage
- Complete the Away Rotation Approval Form available online at UTHSA website
- Submit the Away Rotation Approval Form to the UTHSA Ophthalmology Department for signature
- Finally submit 1. Away Rotation Approval Form, 2. Course Description of Rotation Elective, and 3. VSAS acceptance to UME Office to the Senior Administrative Assistant for Dean's approval.
- The UME Office will submit the completed forms to Registrars who will add you to OPHT 7000 course.

Special Considerations

- Cost
 - O How expensive will it be to live in this city?
 - o Can you drive to the city your rotation is in?
 - Will you need to rent a car for the month?

Location

- o If you want to leave Texas for residency, how important is it to do a rotation in the region of the country you are looking to move to
- Length of rotation
 - Are you going to do a 2 week or a 4 week rotation? Is 2 weeks enough time for you to learn enough about the program?
 - Is 2 weeks enough time for you to get to know the faculty/residents if you are going to ask for a LOR or to get an interview invite?
- Letter of Recommendation (LOR)
 - If you are hoping to get a letter from the rotation, the latest you should consider rotating there is August
- Interview Invite
 - o If you are auditioning for a program in hopes of getting an interview, the latest you should consider rotating is in October

- Possibility of getting an interview from the program
 - Many programs do not guarantee that you will get an invitation to interview there, even if you rotate there
 - Ask fourth years for their specific advice
- Elective Options
 - Look at the different electives offered at the institution
 - You pay per institution, not elective, so it may be beneficial to apply to multiple electives and multiple time blocks per program
 - Some programs will not review your application until 1-2 months before the start of your elective
 - When you research programs before applying, be sure to note certain dates:
 - Application submission
 - Application review
 - Decision of acceptance

Elective Offers

- You will have 1-2 weeks to accept or deny the offer
- o If you are turning down an invitation to do an away, be aware that depending on the program, you may not get an invitation to interview
- As soon as your away schedule is set, withdraw all remaining programs immediately so that you will not have to deny any offers

Scheduling

- o Programs run on different schedules than UTHSA. Some are flexible on dates and will let you fit the rotation to your schedule. Some will not, so just be prepared to plan for this
- Step 2 CK and CS will have to be scheduled at some point during the first half of fourth year, so plan the aways accordingly

References

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- 2. Vislisel, Jesse. The Iowa Guide to the Ophthalmology Match. Ophthalmology and Visual Sciences. *University of Iowa* 2015. Print.

Chapter 6. Navigating the Ophthalmology Match

Terminology

San Francisco Match (SF Match): The main service portal used by medical students to apply to Ophthalmology. Students log on to the SF Match to access their CAS application. SF Match day for Ophthalmology residency occurs in mid-January.

Central Application Service (CAS): The electronic application process used by SF Match applicants. Students can manage their application, transcripts, letters of recommendation, and any other supplementary materials via this program. All materials must be submitted via the CAS system to be considered by ophthalmology programs. In previous years materials were submitted by the postal service, but as of 2017, everything is submitted online.

Electronic Residency Application Service (ERAS): The system used to match into all residency specialties (with the exception of ophthalmology and urology). Ophthalmology applicants must also apply via ERAS to obtain an internship.

National Residency Match Program (NRMP): The service that matches applicants using ERAS. NRMP Match day is mid-March. On this day Ophthalmology applicants find out where they match for their internship.

Categorical Residency: A residency program that provides both internship and residency training, typically 3-7 years long. Examples include Internal Medicine, Ob/Gyn, Pediatrics, and Surgery.

Advanced Residency: A residency program that provides specialty training beginning in your second year of residency (post-graduate year 2, PGY-2) and requires prior completion of an internship for 1 year. Examples include Anesthesiology, Dermatology, Ophthalmology, and Radiology programs.

Internship: 1 year of clinical training (PGY-1) is required before beginning an advanced residency such as ophthalmology. An internship can be a transitional year, or a preliminary year in internal medicine, general surgery, or pediatrics. Some residency programs require a certain type of internship, so be sure to check requirements. Very few programs have a specific required intern year program that you must participate in if you match with them. Many programs however have connections (or possibly even optional reserved positions) with local transition year or prelim (typically medicine) programs.

Preliminary Year: A prelim year is most like the first year of categorical training. Most programs will require a number of months in the wards service, night float, as well as the ICU. Preliminary years are competitive as there are a number of applicants from advanced residency specialties who also will be applying.

Transitional Year: A transitional year offers the greatest flexibility to explore medicine while preparing for advanced residencies. Each month will have rotations in different services including medicine, surgery, and pathology. It is highly sought after.

Calendar of Events

Dates	SF Match		ERAS		NRMP
	Ophthalmology Application & Match		Intern Year Application		Intern Year Match
	Overall	Specific Dates	Overall	Specific Dates	Specific Dates
March April	 Update CV Meet with Advisors/ UME Dean Meeting Begin to request Letters of Recommendation (LOR) *1+ month notice* Research programs Sign up for Step 2 CK/CS 				
May	- Begin personal statement - Collect LOR		 Begin personal statement Collect LOR *1+ month notice* Work on electronic ERAS application 		
June July August		June 1: SF Match Opens: - Work on electronic application - Request transcripts - Request USMLE scores		June 6: ERAS Opens	
		Aug 15: Target Submission Date to SF Match			

Dates	SF Match Ophthalmology Application & Match		ERAS Preliminary Year Application		NRMP Preliminary Year Match
	Overall	Specific Dates	Overall	Specific Dates	Specific Dates
September	- Complete supplemental applications	Sept 11: Class Rank Revealed		Sept 6: ERAS submission opens	
	 Various program submission deadlines Interview offers begin late Sept 			Sept 15: ERAS Target Date for Submission	Sept 15: NRMP Opens
October	Interviews	Oct 1: MSPE Released		Oct 1: MSPE Released	
November			Interviews		Nov 30: NRMP Registration Deadline
December					
January		Jan 4: Match List Due Jan 11: Match Results Released to Programs Jan 12: Match Results Online		Jan 15: Ranking Opens	
February				Feb 21: Match List Due	
March					Mar 12: Match Week – SOAP Begins Mar 16: Match Day

Preparing the Application

To become an ophthalmologist, medical students must undergo a unique application and match process. Unlike most other specialties which apply to ERAS only, there are two separate application services for ophthalmology. In addition to ERAS, ophthalmology applicants also apply to the San Francisco Match (SF Match), which is dedicated to the ophthalmology match. Furthermore, the SF Match application deadlines are approximately one month earlier than the ERAS, thus requiring earlier preparation. As a result, ophthalmology participates in its own Match Day. This guidebook will hopefully serve as useful resource for navigating the application, interviews, and match process.

SF Match Requirements

There are 7 documents that are required to submit to the SF Match. These include CAS application, a college transcript, 3 letters of recommendation (LOR), a medical school transcript, and USMLE Step 1 board scores. All documents are to be uploaded online for submission. However, the student is expected to submit only the CAS application, a college transcript, and the USMLE Step 1 board scores. UTHSA will upload LORs, the medical school transcript, and later the Deans Letter or MSPE. A table with the required documents and upload expectations is listed below for convenience.

Documents Required for Submission		
Documents	Medical Student Upload	Medical School Upload
CAS Application	X	
College Transcript	X	
LOR 1		Χ
LOR 2		Χ
LOR 3		Χ
Med School Transcript		X
USMLE Step 1	Х	

More details regarding application submission can be found in Submitting Application Section.

Curriculum Vitale

Getting started on the curriculum vitale (CV) as early as possible will be quite helpful later in the application process. A CV is a summary of all your professional and academic activities. It should include academic background, teaching experience, degrees, research, awards, publications, presentations, and other achievements. CVs are thus much longer than resumes, and include more information. The Assistant Dean of Medical Education, and the Ophthalmology <u>Department Chair</u> are great resources to review your personal statement with. Though your

actual CV will not be submitted with the SF Match and ERAS applications, you will be able to copy-paste sections of the CV to the CAS application. It will be helpful to keep all your achievements organized to facilitate this process. CVs should be provided to any recommendation writers or to away rotation programs. Additionally, the information from the CV typically can be copied to over to the residency applications.

Letters of Recommendation

The SF Match requires 3 LORs for submission to ophthalmology programs. Sending more or fewer LORs is not recommended. All 3 LORs will be submitted to all the programs. Thus, you will not be able to distribute certain letters to different programs. A few programs do allow you to submit to directly to them, but check with them first.

It is helpful to start thinking about who you may want to ask for letters beginning your third year. Asking for letters can be done in person or via email. It is best to have at least 1 letter from well-known faculty from the ophthalmology department. Many applicants will obtain 2 letters from ophthalmology faculty and 1 letter from faculty from a core rotation. However, there are no strict guidelines on who to ask for LORs. Try to request LOR from faculty that know you well so that the letter is meaningful and personalized. This relationship can be built while performing research or during an ophthalmology rotation.

The key is to ask early. If your letter writer is someone with whom you worked with earlier in the year, it may be better to ask them for a recommendation just after finishing the rotation so that their memories working with you are fresh. The ophthalmology faculty at UTHSA understand that letters need to be submitted earlier, and are typically prompt with submitting letters. However, your letter writers are busy too, so be awesome and try to give them at least 1 month notice!

Provide recommendation writers with a CV and a copy of your personal statement so that they have more information to strengthen your letter. Your personal statement does not have to be complete and you can always update them later. Also let them know that you waive the right to view the letter. At UTHSA, ask your letter writers to submit directly to the Dean's Office to the Senior Program Coordinator, and the office will upload LORs to the SF Match on your behalf. Keep in mind that the Dean's Office is unable to upload any documents until you have submitted your CAS Application.

Personal Statement

The personal statement can be the hardest component of the application process. A well written personal statement describing your path to ophthalmology can strengthen your application. Start early as you can as there will be many revisions. Many applicants start in sometime in May or June. The goal is to create 1 page single spaced personal statement. Ask friends family, and mentors to proofread your personal statement. Some great resources to check out at UTHSA is the Director of Student Affairs who specializes in personal statements, as well as current ophthalmology residents. Be sure to spell ophthalmology correctly! Programs do pay attention.

Transcripts

You are required to provide official transcripts from undergraduate or graduate programs transcripts, excluding your medical school transcript. All transcripts are uploaded electronically to the CAS Program; therefore, it is not necessary to order any printed transcripts. Most undergraduate and graduate studies can order online transcripts, which are delivered immediately, through the National Clearinghouse. Your medical school transcript is uploaded by the Senior Program Coordinator, and is free of charge.

USMLE Score Reports

A copy of your USMLE score report for STEP 1 is mandatory for submission to SF Match. If STEP 2 CK or CS is available, provide that information as well. All score reports are to be submitted online. If you did not save your score report from the NBME website when the scores were released and the ability to access the report has expired, you can still request it from NBME for \$70 fee.

Professional Photo

Professional photos are important to the application process. They can be submitted at any time, but it is recommended to do so prior to the distribution of your application. While most programs do not view photos until the interview day, and they will use it to serve as a visual reminder of rank lists. Photos can be taken by a professional photographer at UTHSA for \$20 photo session + \$10 per photo selected. Some classmates may offer to take professional photos as well.

MSPE (Dean's Letter)

The Medical Student Performance Evaluation (MSPE) was previously known as the Dean's Letter. This letter is a professional statement written by the Assistant Dean of Medical Education about your medical school achievements. It will include 1st and 2nd year grades, clerkship grades, compare you with your class, and list any clerkship evaluations. There is also a section for Noteworthy Characteristics, which the Assistant Dean of Medical Education will request your input. This section allows you to highlight any academic accomplishments, leadership, volunteering, personal experiences, as well as any academic or personal hardships or challenges that you may not have had a chance to describe anywhere else. This section is not specialty specific, and will be provided to both ophthalmology and internship programs. The section is very brief and is presented as 3 bulleted items at UTHSA. The Assistant Dean of Medical Education typically sends out requests early July for the Noteworthy Characteristics with a deadline by August 1st. You will have the opportunity to review the MSPE and proofread the entire statement including clerkship evaluations and summaries prior to its submission. The MSPE is released October 1st nationwide. Since ophthalmology works on different timelines, many programs will not heavily rely on this information. It is possible you will have interview invitations prior to its release.

Selecting Programs

At this time, there are between 110 to 120 ophthalmology programs across the nation. A list of all the programs and short descriptions can be found on the SF Match portal under "Program Directory." While the programs are most up to date the information provided may not be. Therefore, it is wise to look up the programs you are interested.

Some applicants may choose to meet with an ophthalmology mentor and go through the list together, selecting top, middle, and lower tier programs to apply to. What is most important is to figure out what kind of residency program is right for you. Consider location, working environment, academic v. clinical, fellowship opportunities, etc.

Ophthalmology is a very competitive field and it may be helpful to apply to many programs with a wide range of tiers. Residents and faculty typically recommend aiming for 10 interviews, which correlates with a high match rate. In 2016 the average applicant applied to 68 programs and had STEP 1 score of 244. The match rate is fairly high with 92% of new US seniors matching.

Formatting the Application

Formatting with the CAS application is quite different from ERAS as most of the sections of CAS are open text blocks. You will have the ability to bold, italicize, underline, and even color text to organize your content. Take advantage of these tools. For example, bold your name under publications. There is no word count or character count, but you will be limited by line count. Faculty at UTHSA recommend writing in bullet format over paragraphs. For honors, awards, and achievements, briefly explain the merit. Programs many not recognize the effort that went into accomplishing them from the name alone. It is recommended to emphasize merit based scholarships. Be sure to preview your document many times prior to submission, as the text may appear slightly different when converted to PDF format on submission. Have someone review your application before submission.

Submitting the Application

CAS Application

The CAS application is the file that all ophthalmology programs will look at and is most like the Curriculum Vitale (CV). In this application, you will complete the following:

- **Document Personal Information**
- List Education and Training
- Report Licenses and Examinations
- Document Employment
- List Authors for Letters of Reference
- **Briefly Describe Career Objectives**

- Detail Specialty Electives and Ophthalmology Activities
- Note any Honors, Awards, and Achievements
- Highlight any Public Service and Leadership
- Mention Interests and Hobbies
- Write Personal Statement
- List any Research Activities, Papers, or Additional Information

The CAS application must be submitted before you can proceed with submission of supplemental information. The Dean's office will be unable to upload any transcripts or letters of recommendation until the CAS application is complete. Please keep in mind that since the ophthalmology match timeline is earlier, you may not have the most up to date GPA and class rank or AOA or Gold Humanism Award. In 2017, class rank and GPA was made available 9/11, AOA status on 9/13, and Gold Humanism on 10/11. One way to facilitate this process is to request for an unofficial class rank and GPA from the Assistant Dean of Medical Education as soon as possible for a submission target of mid-August and update programs as the information is released.

Program Payment

Programs can be selected through the program directory. Once selected, click to "apply to programs." Just like ERAS, the more programs you apply to the greater the distribution fees. Currently the fees are arranged as the following:

Number of Programs	Processing Fee
1 - 10	\$60 total
11 – 20	\$60 + \$10 per program
21 – 30	\$60 + \$100 + \$15 per program
31 – 40	\$60 + \$100 + \$150 + \$20 per program
41 +	\$60 + \$100 + \$150 + \$200 + \$35 per program

Supplemental Materials

More and more programs are starting to request supplemental materials in addition to the required CAS materials. Examples include:

- Secondary Application
- Short Paragraph on Specific Program Interest
- Recent Eye Exam with Stereopsis and Color Vision
- Photo

Carefully visit each program's website that you have applied to and confirm whether supplemental materials are required. Some programs have alternate deadlines for these materials so it is better to complete them as soon as possible.

ERAS

Once the SF Match is submitted take some time to enjoy. But do not forget to submit for an internship year! Intern year is completed via the ERAS. It is much simpler to do than the SF Match as most of ERAS is completed from selecting from the drop-down menu of options. Much of the information will be the same as from SF Match, and programs will understand your interest in ophthalmology.

Most ophthalmology applicants apply to a combination of transitional and preliminary year positions. The recommendation is to apply to 10-20 programs based on location, interests, etc. You can always apply to more programs as ophthalmology invitations begin to come. One thing to note is that the cost to apply to 1 preliminary program is the same as applying to 10 and that there is a separate cost to applying to transitional year positions. Many programs also save internship positions for their matched residents. Thus, it is possible to obtain an internship through the ophthalmology program you match at.

NRMP

The National Residency Match Program (NRMP) is the final step in the application process. It is required to apply through this service because this is where the official Match takes place. It uses a complex algorithm to match applicants to the residency of their choice. The application process of the NRMP however is simple. The NRMP will request your AAMC application number and pull your information automatically from ERAS. (It is best to do the NRMP after you have submitted your ERAS application). The applicant then pays a processing fee of \$80 to complete the process. A late fee of \$50 is added if the application is submitted after November 30th. Once completed you will be registered to participate in the Match for intern year as well as the Supplemental Offer and Acceptance Program (SOAP).

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Appendix

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