Career Guides
Career Guides for Selection of Senior Coursework

The following departments have submitted a guide for course choices that would be beneficial for a student interested in their specialty:

- Anesthesiology
- Dermatology
- Emergency Medicine
- Family and Community Medicine
- Medicine
- Neurology
- Neurosurgery
- Obstetrics/Gynecology
- Ophthalmology
- Orthopaedic Surgery
- Otolaryngology and Communication Science
- Pathology
- Pediatrics
- Physical Medicine and Rehabilitation
- Plastic Surgery
- Psychiatry and Behavioral Medicine
- Radiation Oncology
- Radiology
- Surgery
- Urology

It is recommended that you take these career guides with you when you meet with your clinical advisor. They will assist you and your advisor in formulating a comprehensive list of all courses necessary for a career in your chosen specialty.

The guides will be particularly useful to students who have not yet determined their specialty. See the example below:

Let’s say you are torn between Anesthesiology, Emergency Medicine and Surgery. You may review these three guides and prepare a list of courses that are recommended for any of them (Critical Care Medicine/ICU, Emergency Medicine, Trauma Surgery and General Medicine). This will also prevent you from having to rearrange your entire schedule later on, once you’ve made your career choice.

Please note that students are limited to taking a maximum of two (2) courses in the same specialty. This includes MCW required courses, MCW electives and away electives.

The career guides will also be available in the course catalog when it is opened for your viewing in January, 2014.
Recommended rotations for students interested in a career in Anesthesiology:

- Cardiology
- Pulmonary Medicine
- Critical Care Medicine (Intensive Care)
- General Medicine
- Emergency Room - Admitting Center
- Otolaryngology & Communication Sciences
- Anesthesiology: Pain Management
- Anesthesiology: Anesthesia for Trauma and Emergencies
- Anesthesiology Sub-Internship

Other early course suggestions for obtaining letters of recommendation:

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<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>305-M4101</td>
<td>Clinical Anesthesiology</td>
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<tr>
<td>305-M4102</td>
<td>General Anesthesia</td>
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<tr>
<td>305-M4103</td>
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<tr>
<td>305-M4105</td>
<td>Pediatric Pain Management/Pediatric Anesthesiology</td>
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<tr>
<td>305-M4107</td>
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<td>305-M4301</td>
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<td>305-M4302</td>
<td>Research-Cardiovascular and Respiratory Regulation</td>
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<td>305-M4308</td>
<td>Research-Cardioprotection by Volatile Anesthetics</td>
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<tr>
<td>305-M4401</td>
<td>Anesthesia for Trauma and Emergencies</td>
</tr>
<tr>
<td>305-M4615</td>
<td>Anesthesiology Sub-Internship</td>
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The following electives, listed in order of preference, are recommended for students interested in a career in Dermatology:

- Dermatology
- Rheumatology
- Allergy/Immunology
- Infectious Diseases
- Pathology
- Plastic Surgery

Other early course suggestions for obtaining letters of recommendation:

Away rotation in dermatology is often helpful.
I. Strongly Recommended

- Trauma surgery is the ideal surgical sub-I choice
- Critical Care Medicine – essentially any critical care rotation (such as MICU) where students have the opportunity to manage complex critically ill patients
- Away elective in EM

II. Also Recommended

- Pediatric EM
- Cardiology
- Orthopedics
- Radiology
- Sports Medicine

Other early course suggestions for obtaining letters of recommendation:

It is VITAL that ALL students applying for a residency position in Emergency Medicine do an EM M4 rotation at a site that houses a residency program. Essentially all of these MCW students should enroll in the MCW M4 EM elective in order to get the necessary letters of recommendation, including a departmental letter and at least one individual EM faculty letter. Many, if not most, students will do an additional away elective in EM at another institution and should seek the equivalent letters of recommendation there. For those planning an away elective, a Pediatric EM (PEM) rotation is less important than an additional rotation in EM. We do recommend the PEM elective for those not planning an away rotation.

We accommodate as many students as we are able to, however, if spots are filled early in the year, students may have to add themselves to a waiting list. If this occurs, remain on the list but pursue an away rotation to obtain the necessary letter of recommendation.
Senior students interested in preparation for advanced training in Family Medicine, should consider courses in the following three areas:

1. One M4 course experience in Family Medicine, especially if you are in need of a letter writer. More than one course in Family Medicine is not necessary in the M4 year. 

   Family Medicine course options include:
   - Courses at our three MCW Department of Family and Community Medicine (DFCM) affiliated Family Medicine residency programs.
   - Courses on campus with MCW DFCM faculty
   - Away clinical electives with a family physician

2. Courses to round out or fill gaps in medical knowledge, in important broad content areas pertinent to scope of Family Medicine (two or three months):

   - Medical experiences (mostly office-based): Dermatology, Cardiology, Physical Medicine and Rehabilitation, Sports Medicine, Radiology, Adolescent Medicine or Infectious Diseases.
   - Surgical experience (office-based or hospital-base): Orthopedics, Urology, or ENT.
   - Women’s Health experiences: Inpatient OB/GYN and/or office-based Gynecology.

3. Courses in areas of special interest to you e.g. International Health.

MCW DFCM courses: The DFCM offers a wide range of courses for senior students. They include Acting Internships, Integrated Selectives, Clinical Electives and Research/Community Health Electives.

- **Acting Internships in Family Medicine**: Students can satisfy their one-month Medically-Oriented Sub-Internship requirement by taking one of three Sub-I’s. The Sub-I’s are at the Columbia-St. Mary’s Family Medicine Residency program (M4502), Waukesha Family Medicine Residency program (M4510), or the St. Joseph Family Medicine Residency program (M4512).

- **Integrated Selectives**: The two Integrative Selectives offered through the DFCM include The Doctor/Patient Relationship from Patient/Provider Perspective (M4408) and Health Policy and Advocacy for Physicians (M4420).

- **Family Medicine Residency Electives**: The DFCM has elective experiences available at two of our Family Medicine Residency programs. Columbia-St. Mary’s (M4110) and Waukesha (M4111) have electives that can be crafted to fit your educational needs, with options that focus on family medicine in a variety of settings including: inpatient, office-based, urban or rural. The Columbia-St. Mary’s Residency Program has an additional focused elective on Women’s Health – Family-centered Care Emphasizing OB (M4116).

- **Family Medicine Elective in Sports Medicine**: Consistent with the wide scope of Family Medicine, an elective is offered in Sports Medicine-Primary Care (M4115) on campus,

- **Rural Ambulatory Medicine Elective**: This is an elective (M4114) with a Family Medicine master clinician in the Sheboygan area in the state of Wisconsin.

- **Away Clinical Electives**: Away Electives in Family Medicine can be arranged with the approval of the DFCM’s Director of Medical Student Education.

- **Research/Community Health Elective**: The DFCM offers a research elective, Academic Family Medicine and Community Based Research and a community health elective, Promoting Health in Urban and Underserved Communities (No course number, contact DFCM’s Director of Medical Student Education).
All DFCM faculty are happy to provide advice regarding your senior course options, career goals and Family Medicine Residency Programs.

Other early course suggestions for obtaining letter of recommendation:

All course offerings through the Department of Family and Community Medicine will provide students with one-on-one faculty experience that would facilitate a letter; however, those courses with significant clinical faculty interactions that may best facilitate letters of recommendation include:

- Acting Internships in Family Medicine (M4502, M4510, M4512)
- Clinical Electives in Family Medicine (M4110, M4111, M4114, M4115, M4116)
- Away Clinical Electives in Family Medicine

Interviews for Family Medicine Residency applicants occur mid-October to mid-January. If you are interested in applying/acceptance into a specific Family Medicine Residency Program, there may be value in choosing an elective at that program between the months of July through January.
Recommended rotations for M4 students considering careers in internal medicine

In addition to the acting internship and the required M4 Ambulatory Medicine Clerkship, students planning careers in general internal medicine or one of the medicine subspecialties should consider taking additional senior elective rotations that will make them well-rounded physicians.

A typical senior year schedule might include a combination of one or two of the more traditional medical subspecialty rotations (hospital medicine, cardiology, infectious diseases, geriatrics, nephrology, etc.) as well as two to three electives sponsored by other departments. Examples of the latter are listed below:

- Dermatology
- Emergency Medicine
- Adult Neurology
- Diagnostic Radiology
- Intensive Care Unit
- Psychiatry
- Orthopedics (especially office-based orthopedics or sports medicine)
- Gynecology (especially office-based gynecology)
- Surgical subspecialty rotations (ENT, ophthalmology, urology, etc.)
- Physical medicine and rehabilitation
- International health

Because the field of internal medicine is so broad and diversified, all students are encouraged to meet with Department of Medicine faculty members for individual counseling and advice.

Other early course suggestions for obtaining letters of recommendation:

A letter from a Medicine faculty member who directly supervises your care of patients on a fourth-year rotation is recommended. Examples of courses during which students typically ask for letters include the Acting Internship, the Ambulatory Clerkship and inpatient rotations like Medical Intensive Care Unit, Hospital Medicine, Inpatient Cardiology and Inpatient Neoplastic. We would recommend completing one of these courses in July, August or September.
The student interested in a career in neurology at this stage of his/her education has usually had only a limited exposure to the clinical discipline during the third year clerkship. Students would be well-advised to discuss the particulars of his/her senior elective schedule with a member of the Department of Neurology, so that the goals of the individual can be served well by the elective process.

Commonly, the elective choices of a fourth-year student will include:

1. Medical sub-specialties --especially cardiology, renal medicine, rheumatology, pulmonary medicine, intensive care, or infectious diseases;

2. Pediatric sub-specialties (appropriate for the student interested in child neurology) ---especially cardiology, child development or neonatal medicine;

3. Neuro-radiology;

4. Rehabilitation medicine;

5. Liaison psychiatry; and

6. Neurology - in one of the elective/selective experiences offered by the Department, and/or at the center where the student wishes to take his/her residency training.

For the majority of students--either wondering about neurology, or recognizing the importance of neurology in all other clinical disciplines - one of the neurology electives/selectives at this College is an essential to a well-rounded, meaningful elective senior year.

For students interested in the Neurosciences, we recommend more in depth exposure to Neurology through the elective or selective program. During this rotation, students are exposed to the spectrum of neurologic disease through the wards, consultation service as well as the subspecialty clinics. In planning other senior electives, we recommend exposure to neurosurgery, neuroradiology, and medical subspecialties such as cardiology and infectious diseases. Our department welcomes students with a strong interest in Neurology to seek a faculty mentor within the division.

Other early course suggestions for obtaining letters of recommendation:

Even though we have a “limited” number of positions on the inpatient rotation, we can take more students and have them rotate through our outpatient neurology clinics. **ALL STUDENT’S INTERESTED SHOULD CONTACT DR. ANN HELMS AT ahelms@mcw.edu.**
Here is a list of suggested electives for those considering a career in neurosurgery:

- Internal Medicine
- Neurology
- Interventional Neuroradiology
- Cardiology
- Endocrinology
- Urology
- Otolaryngology
- Neurocritical Care
- Trauma
- Radiology
- Neurosurgery

Other early course suggestions for obtaining letters of recommendation:
Proposed electives for students considering a career in Obstetrics-Gynecology:

Core

- Ambulatory Internal Medicine or Family Medicine
- Internal Medicine Acting Internship
- ICU (Medicine or Surgery)
- Emergency Medicine

Consideration

- Adolescent Medicine (Department of Pediatrics)
- Advanced Clinical Human Anatomy
- Anesthesiology (especially Obstetric Anesthesiology)
- Cardiology
- Consult Psychiatry
- Dermatology
- Female Urology
- Genetics
- Infectious Diseases
- Master Clinician: Adv. Clinical Skills for Residency and Beyond
- Medical Consults
- Medical Endocrinology
- Multidisciplinary Management of Breast Disease
- Neonatology
- Nephrology
- Radiology
- Surgical Pathology

In general, we recommend a broad schedule with a variety of courses in different disciplines that would prepare you for the variety of patients that you will care for in the future.

Students should not take more than one course in obstetrics/gynecology – except in special circumstances and after discussion with Dr. Lund.

Other early course suggestions for obtaining letters of recommendation:

| Away Elective in Obstetrics and Gynecology |
A student interested in a career in Ophthalmology should contact his or her advisor as early as possible for a curriculum planning discussion. Ophthalmology residencies participate in a separate match program with earlier application deadlines than the National Residency Match Program.

Students interested in ophthalmology are encouraged to maintain a broad-based medical experience in their senior year. Senior electives are available in both clinical and research subspecialty areas of ophthalmology. Although such electives are encouraged for the interested student, no more than one or two of these electives should be chosen so that other areas of medicine are adequately covered during the remainder of the year. Electives that may be helpful to the potential ophthalmologist are those with multidisciplinary applications (infectious diseases, radiology, allergy/immunology, etc.), or those involving conditions that may overlap with ophthalmic disease (such as otorhinolaryngology, dermatology, endocrinology, rheumatology, and neurology). Because interviews for ophthalmology residency programs are usually held in November and December of the senior year, interested students should seek electives during the months of July through October. Leslie Bencivenga, medical student coordinator for the ophthalmology department is a good resource for additional information.

Other early course suggestions for obtaining letters of recommendation:
In preparation of advanced training in orthopaedic surgery, the Department of Orthopaedic Surgery advises the senior medical student to select the following senior electives:

- 2 months Orthopaedic Surgery
- 1 month Intensive Care Unit or Emergency Medicine
- 1 month Medical Subspecialties (Cardiology, Pulmonology, Infectious Diseases)
- 1 month Anesthesiology, Plastic Surgery, or Radiology
- 1 month General Medicine

Other early course suggestions for obtaining letters of recommendation:

The Department of Orthopaedic Surgery offers a wide variety of courses available to MCW M4 students. Not only do we have Sub-Internships available at Froedtert East Clinic, Children’s Hospital of Wisconsin and the VA Medical Center but we also have elective courses at all three of these locations. The courses at CHW and the VA are very rarely used but they are available to students if the Sub-Internships are full. The experience is very similar and the students spend time with the same faculty. In addition, we offer several integrated selective courses that students can take advantage of to meet faculty and get letters of recommendation.
Recommended rotations for students interested in Otolaryngology as a career:

- Adult and Pediatric Sleep Medicine
- Anesthesiology
- Emergency Medicine
- Critical Care Medicine
- Neurology
- Pulmonary Medicine
- Pediatrics
- Vascular Surgery
- Plastic Surgery
- Neurosurgery

Any students who are interested in Otolaryngology should contact Dr. Stadler (mstadler@mcw.edu) to discuss their strategy/plan for scheduling coursework.

Other early course suggestions for obtaining letters of recommendation:

General Surgery, away Otolaryngology rotation (please contact Dr. Stadler to discuss this further).
Below is a list of suggested electives for those considering a career in pathology:

1. Pathology at MCW (Anatomic Pathology, Clinical Pathology/Hematopathology, Blood Bank-Transfusion Medicine, Forensic Pathology)
2. Rotation in Pathology (away from MCW)
3. Medical Hematology/Oncology, Radiation Oncology, Orthopedic Oncology or Gynecologic Oncology
4. Subspecialty surgical services: thoracic, colorectal, ear/nose/throat or transplant
5. Gynecology (non-oncologic)
6. Gastroenterology/Hepatology
7. Urology
8. Dermatology
9. General Surgery (beyond basic requirements)
10. Additional training in General Medicine

Other early course suggestions for obtaining letters of recommendation:

1. Rotation in Pathology (away from MCW)
2. Medical Hematology/Oncology, Radiation Oncology, Orthopedic Oncology or Gynecologic Oncology
3. Subspecialty surgical services: thoracic, colorectal, ear/nose/throat or transplant
4. Gynecology (non-oncologic)
5. Gastroenterology/Hepatology
6. Urology
7. Dermatology
8. General Surgery (beyond basic requirements)
9. Additional training in General Medicine
For the student interested in Pediatrics, the following criteria should be considered in choosing senior year electives:

1. It is very important to diversify the 4th year. The 4th year is the last opportunity to learn about conditions, illnesses and patients which you will not see as a pediatrician. Do not spend your 4th year doing things which you will repeat as a resident.

   Being able to excel in other areas of medicine – surgical fields, internal medicine, psychiatry shows versatility and commitment. Pediatric training programs look for residents who will perform well in very different settings.

2. To facilitate the decision-making process regarding career choice

   If a student is not yet certain he/she wishes to go into Pediatrics, it is recommended that the student take an elective in a community pediatric practice, a subinternship or a pediatric subspecialty elective early in the senior year.

3. To increase the student's chance of being accepted into a particular internship and residency program

   Good training programs are competitive. If a student has absolutely decided on a particular program, then we suggest taking an elective at that program (e.g. a subspecialty elective or subinternship). This elective should ideally occur before November or December.

4. To supplement the normal pediatric residency curriculum

   Examples include:

   a. An elective in an area which is not a standard part of residency training, but important to pediatric practice:

      Allergy       Anesthesiology       Radiology
      Dermatology   Orthopaedics
      ENT           Neurology

   b. An elective in an area of relevance or interest to the student

      Take advantage of the opportunity to take an interesting elective before residency when there is little time to do so. This might include a research elective or an elective in another country. Third world experiences are particularly valuable.

Other early course suggestions for obtaining letters of recommendation:

A Neonatology Sub-Internship.
The following courses are recommended as valuable in preparation for a residency in Physical Medicine and Rehabilitation (in order of preference):

1. Physical Medicine and Rehabilitation – is “a must”
2. Geriatrics
3. Neurology
4. Orthopaedic Surgery
5. Palliative Medicine
6. Medicine Sub-Internship
7. Neurosurgery
8. Rheumatology
9. Cardiology
10. Plastic Surgery
11. Urology
12. Vascular Surgery

Other early course suggestions for obtaining letters of recommendation:
The following courses are recommended as valuable in preparation for a residency in Plastic Surgery:

- Plastic Surgery Sub-Internship
- General Surgery Sub-Internship
- Emergency Medicine
- Dermatology
- Cardiology
- Pulmonary Medicine
- Infectious Diseases
- Nephrology
- Radiology
- Orthopaedic Surgery
- Anesthesiology
- Surgical ICU
- Pediatric Surgery
- Otolaryngology

Other early course suggestions for obtaining letters of recommendation:

- Take the Plastic/Hand Surgery elective or Craniofacial & Pediatric Plastic Surgery Integrated Selective early in the year if you are unable to schedule a Plastic Surgery Sub-Internship.
The Department of Psychiatry and Behavioral Medicine offers a number of electives to senior students interested in expanding their psychiatric knowledge and skill. Offerings in psychiatry include exposure to consultation/liaison psychiatry at Froedtert Hospital, child and adolescent psychiatry on an inpatient unit at the Milwaukee County Behavioral Health Division, a combined outpatient/consult experience in child and adolescent psychiatry at Children’s Hospital and a subinternship at the Veterans’ Administration. Electives are suitable for students planning for a career in psychiatry or for students pursuing a career other than psychiatry who wish to increase their psychiatric expertise.

Carol I. Ping Tsao, M.D., J.D.
Medical Student Education
(414) 955-8992 ctsao@mcw.edu

For course information, contact Kristine James
(414) 955-8992 kjames@mcw.edu

Other early course suggestions for obtaining letters of recommendation:
• General Medical (including Medical Oncology)

• Surgery (particularly surgical subspecialties such as Surgical Oncology, Otolaryngology, Urology and possibly Neurosurgery or Thoracic Surgery)

• Radiology (including Nuclear Medicine)

• Gynecology (particularly Gynecologic Oncology)

• Pathology

Other early course suggestions for obtaining letters of recommendation:

It is essential to obtain letters of recommendation from radiation oncologists. Students are also highly encouraged to take at least one away rotation early in the senior year in addition to a Radiation Oncology rotation at MCW.

Research in the field of radiation oncology is also extremely important in order to be a competitive applicant.
RADIOLOGY

- Pulmonary Medicine
- Medical GI
- Orthopedics
- Community Hospital Radiology
- Oncology or Radiation Therapy
- General Surgery
- Pathology
- Neurology or Neurosurgery

Radiology elective is not necessary.

Other early course suggestions for obtaining letters of recommendation:

<table>
<thead>
<tr>
<th>Interventional Radiology</th>
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<tbody>
<tr>
<td>Pediatric Radiology</td>
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</table>
Senior students are required to take a general surgery subinternship rotation at an academic institution. Those interested in a career in surgery preferably should complete this before October, to allow for personal access to full-time surgical faculty as sources for letters of recommendation.

Aside from the subinternship in general surgery, appropriate electives for senior students interested in a general surgery residency program are as follows:

Other valuable rotations include anesthesiology, radiology, critical care, emergency medicine and surgical pathology.

Other early course suggestions for obtaining letters of recommendation:

| Any elective in General Surgery such as Trauma, Surgical Intensive Care, Pediatric Surgery, Cardiothoracic Surgery or General Surgery at Froedtert. Any Subinternship in General Surgery at Froedtert, Cardiothoracic Surgery, Trauma, Pediatric Surgery, Transplant Surgery or Vascular Surgery. Any Integrated Selective such as Vascular, Breast, Inflammatory Bowel Disease or Management of Morbid Obesity. |
The following courses are suggested (in order of importance) for M4 students going into Urology:

- MCW Urology Sub-Internship
- Away Urology Sub-Internship
- Radiology
- Surgical ICU or surgery rotation
- Nephrology
- Anesthesiology
- Internal medicine
- Emergency medicine

Other early course suggestions for obtaining letters of recommendation: