Career Guides for Selection of Senior Coursework

The following departments have submitted a guide for course choices that would be beneficial preparation 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 Sciences
- 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, etc.) 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 on January 5, 2016.
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 Acting Internship

Other early course suggestions for obtaining letters of recommendation:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>305-M4D101</td>
<td>Clinical Anesthesiology</td>
</tr>
<tr>
<td>305-M4D102</td>
<td>General Anesthesia</td>
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<tr>
<td>305-M4D103</td>
<td>Anesthesiology</td>
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<tr>
<td>305-M4D105</td>
<td>Pediatric Pain Management/Pediatric Anesthesiology</td>
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<td>305-M4D107</td>
<td>Obstetric Anesthesia</td>
</tr>
<tr>
<td>305-M4D302</td>
<td>Research-Cardiovascular and Respiratory Regulation</td>
</tr>
<tr>
<td>305-M4D904</td>
<td>High Risk Anesthesia Consultation</td>
</tr>
</tbody>
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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
- Oncology
- Pathology
- Plastic Surgery

Other early course suggestions for obtaining letters of recommendation:

An away rotation in dermatology is often helpful.
I. Strongly Recommended

- Away elective in EM
- Trauma surgery, if not already completed
- Critical Care Medicine – essentially any critical care rotation (such as MICU) where students have the opportunity to manage complex, critically ill patients

II. Also Recommended

- Pediatric EM
- Cardiology
- Orthopaedics
- 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 standard letter of recommendation (SLOE), including a departmental SLOE and at least one individual EM faculty SLOE. Students are strongly encouraged to 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 should not superecede an additional rotation in EM, due to the variability in the needed SLOEs in PEM. We do recommend the PEM elective for those not planning an away rotation.

We accommodate as many students as we are able, however, if spots are filled early in the year, students may have to add themselves to a waiting list. If this occurs, please contact the course coordinator to discuss options and strategy, which will include remaining on the list but also pursuing an away rotation to obtain the necessary letter of recommendation.
Senior students interested in preparation for post-graduate 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): Orthopaedics, Urology, or Otolaryngology.
   - 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, M4 Ambulatory Clerkship, Clinical Electives and Research/Community Health Electives.

- **Acting Internships in Family Medicine:** Students can satisfy their one-month Medically-Oriented requirement by taking one of three Sub-I’s. The Acting Internships are offered at the Columbia-St. Mary’s Family Medicine Residency program (M4D502), Waukesha Family Medicine Residency program (M4D510), or the All Saints Wheaton Franciscan Family Medicine Residency program (M4D512).
- **M4 Ambulatory Clerkship:** Columbia St. Mary’s Residency is one of the site options for the required M4 Ambulatory Clerkship (M4D903) as is Sports Medicine-Primary Care (M4D909) at Froedtert Hospital.
- **Family Medicine Residency Electives:** The DFCM offers elective experiences at two of our Family Medicine Residency programs. Columbia-St. Mary’s and Waukesha 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 (M4D116).
- **Rural Ambulatory Medicine Elective:** This is an elective (M4D114) with a Family Medicine master clinician in the Sheboygan, Wisconsin area.
- **Away Clinical Electives:** Away Electives in Family Medicine can be arranged with the approval of the DFCM’s Director of Medical Student Education.
- **Health Policy and Advocacy for Physicians:** This course is directed by the Chairman of the Department of Family & Community Medicine (M4D420).
FAMILY AND COMMUNITY MEDICINE (continued)

- **Research/Community Health Elective**: The DFCM offers a research elective, Academic Family Medicine and Community Based Research (M4D305) and a community health elective, Promoting Health in Underserved Communities (M4D226).

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 letters of recommendation:**

<table>
<thead>
<tr>
<th>Course Offerings</th>
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<tbody>
<tr>
<td>Acting Internships in Family Medicine (M4D502, M4D510, M4D512)</td>
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<tr>
<td>M4 Ambulatory Clerkship (M4D903, M4D909)</td>
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<tr>
<td>Clinical Electives in Family Medicine (M4D111, M4D114, M4D116, M4D420)</td>
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<tr>
<td>Away Clinical Electives in Family Medicine</td>
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Interviews for Family Medicine Residency applicants occur from 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 Medicine Acting Internship, students planning careers in general internal medicine or one of the medicine subspecialties should consider taking additional senior rotations that will make them well-rounded physicians. To fulfill other graduation requirements, students are encouraged to consider taking the Ambulatory Internal Medicine course and their second Acting Internship in one of the medical subspecialty options (MICU, Cardiology, BMT, Hospital Medicine, or Geriatric Medicine), or a surgical subspecialty service that cares for patients with complex medical issues (like Transplant Surgery), or offers a significant intensive care unit experience (like Cardiothoracic Surgery).

A typical senior year schedule might include a combination of one or two electives within a subspecialty division of Internal Medicine (Hospital Medicine, Cardiology, Infectious Diseases, Geriatrics, Nephrology, Endocrinology, Gastroenterology, Hematology/Oncology, Pulmonary, MICU, 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
- Psychiatry
- Orthopaedics (especially office-based orthopaedics or sports medicine)
- Gynecology (especially office-based gynecology)
- Surgical subspecialty rotations (ENT, ophthalmology, urology, etc.)
- Physical medicine and rehabilitation

Additionally, electives that allow students to pursue particular interests (research, medical humanities, teaching, advanced physical exam, international health) may also be productive uses of valuable M4 time. Other than international health electives, away rotations are not typically recommended.

Because the field of internal medicine is so broad and diversified, all students are strongly encouraged to meet with a Department of Medicine faculty member for individual counseling and advice during their M3 year. Contact the M3 Clerkship Coordinator to make an appointment for this and also to facilitate an appointment to meet with the Chair to discuss the Department of Medicine Chair Letter, which is required by most Internal Medicine residency programs.

Other early course suggestions for obtaining letters of recommendation:

One of your letters of recommendation for residency should be from an Internal Medicine faculty member who directly supervises your care of patients on a fourth-year rotation. Examples of courses during which students typically ask for letters include the Medicine Acting Internship, Ambulatory Internal Medicine course, a second Medicine-based Acting Internship. We recommend completing at least one of these courses in July or August if possible (September at the latest).
The student interested in a career in neurology at this stage of his/her education has usually had only limited exposure to the clinical discipline during the third-year clerkship. Students would be well-advised to discuss the specifics 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 experiences offered by the Department, and/or at the center where the student wishes to do his/her residency training.

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

During an elective rotation, students will have a more in-depth experience than they did during their Neurology clerkship or Neurology rotation, with options for selecting areas of particular interest and focus. In planning other senior electives, we recommend exposure to neurosurgery, neuroradiology, and medical subspecialties such as cardiology and infectious diseases.

If you choose to take an elective in Neurology you have to have successfully completed the required clerkship first.

Other early course suggestions for obtaining letters of recommendation:

ALL STUDENT’S INTERESTED IN A CAREER IN NEUROLOGY SHOULD CONTACT our coordinator: Jennifer Richards at jrichards@mcw.edu
Listed below are suggested electives for those considering a career in neurosurgery:

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

Other early course suggestions for obtaining letters of recommendation:

| Nephrology – Infectious Diseases – Emergency Medicine |
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. Skills for Residency and Beyond
Medical Consults
Medical Endocrinology
Multi-disciplinary Management of Breast Disease
Neonatology
Nephrology
Radiology
Surgical Pathology

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

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

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 for advanced training in orthopaedic surgery, the Department of Orthopaedic Surgery advises the senior medical student to enroll in the following senior electives:

- 2 months  Orthopaedic Surgery
- 1 month  Intensive Care Unit or Emergency Medicine
- 1 month  Anesthesiology, Plastic Surgery, or Radiology

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 elective courses that students can take advantage of to meet faculty and secure 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
- Neurosurgery
- Plastic Surgery
- Pulmonary Medicine
- Pediatrics
- Vascular Surgery

Any students who are interested in Otolaryngology should contact Dr. Bruce Campbell (bcampbell@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. Campbell to discuss this further).
Below is a list of suggested electives for those considering a career in pathology:

1. **Pathology at MCW (Introduction to Anatomic and Clinical Pathology, Anatomic Pathology, Clinical Pathology/Hematopathology, Blood Bank-Transfusion Medicine, Forensic Pathology, Advanced Anatomic Pathology)**
2. **Rotation in Pathology (away from MCW)**
3. **Medical Hematology/Oncology, Radiation Oncology, Orthopaedic 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, Orthopaedic 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 use the 4th year for diversification and career exploration. Being able to excel in all areas of medicine – surgical fields, internal medicine and psychiatry. If you feel these are areas in which you need further knowledge, then use your fourth year to educate yourself in these areas. Pediatric training programs look for residents who will perform well in all settings.

In addition, consider that you will need to make the decision to specialize or go into primary care very early in your residency program, typically by the end of your 2nd year of training. Considering that most residency programs offer only 1 or possibly 2 electives during your intern year, you will want to use your fourth year to do various specialty electives for career exploration, if that is something you are considering.

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, an acting internship 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

   Realize that 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 acting internship). This elective should ideally occur before November or December. This will help increase the student’s chance for acceptance into a program.

4. In order to supplement the normal pediatric residency curriculum consider the following;

   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 Acting-Internship
B. Pediatric Acting-Internship

Consider taking an acting internship in the final block of your third year, if your schedule allows. (Limited slots are available)
Students interested in a career in Physical Medicine & Rehabilitation at this stage of his/her medical school training have usually had only limited exposure to the clinic discipline during medical school. Students would be well-advised to discuss the specifics of their elective schedule with a member of the Department of PM&R so that the goals of the individual can be well served by the elective. Our department welcomes students with a strong interest in PM&R to secure a faculty mentor or research advisor within the department.

Interviews for PM&R residency applicants commonly occur October through January. If you are interested in applying to a PM&R residency program, there may be value in choosing an elective early, allowing time to procure a letter of recommendation.

The following courses are recommended as valuable in preparation for a residency in Physical Medicine & Rehabilitation (listed in order of preference).

Physical Medicine & Rehabilitation – required by MCW Department of PM&R
Neurology
Geriatrics
Orthopaedic Surgery/Sports Medicine
Medicine Sub-Internship
Neurosurgery
Urology
Rheumatology
Palliative Medicine
Cardiology
Plastic Surgery
Vascular Surgery
Radiology

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 Elective 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 fourth-year electives to senior students interested in expanding their psychiatric knowledge and clinical skills. The following offerings are suitable for students planning a career in psychiatry or for students pursuing a career other than psychiatry who wish to increase their psychiatric expertise:

- Consultation/liaison psychiatry at Froedtert Memorial Lutheran Hospital
- Inpatient child and adolescent psychiatry at Milwaukee County Behavioral Health Division (MCBHD)
- Emergency psychiatry at Psychiatric Crisis Service (MCBHD)
- Outpatient and consultation in child and adolescent psychiatry at Children’s Hospital of Wisconsin
- Acting Internship at the Clement J. Zablocki Veteran’s Administration Medical Center

Please feel free to contact us with any questions.
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Other early course suggestions for obtaining letters of recommendation:
Recommended fourth-year course work includes:

- 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
- Pediatric Oncology

Other early course suggestions for obtaining letters of recommendation:

It is essential to obtain letters of recommendation from radiation oncologists.

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

The vast majority of applicants for radiation oncology do a rotation outside their own institution. Given the competitive nature of the specialty, this is essential to improve chances of matching. Most students do this early in their senior year so that they can get letters of recommendation.
Recommended rotations for students interested in Radiology as a career:

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

A 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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<tr>
<td>Pediatric Radiology</td>
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Senior students interested in a career in surgery should complete a surgical acting internship early in the 4th year, preferably before October. This will allow students to gain relevant experience and have the opportunity to obtain letters of recommendation. Students interested in a surgery residency are strongly encouraged to complete their acting internships in Acute Care Surgery, Trauma & Critical Care, Transplant Surgery, Cardiothoracic Surgery, Vascular Surgery, Pediatric Surgery, or General Surgery.

In addition to the acting internship, students are encouraged to take electives in General Surgery, Trauma, Pediatric, or Cardiothoracic Surgery, as well as our integrated care courses, including Multi-Disciplinary Management of Vascular Disease, Multi-Disciplinary Management of Breast Disease, Multi-Disciplinary Management of Inflammatory Bowel Disease, or Multi-Disciplinary Management of Morbid Obesity.

It is also highly recommended that students gain experience in the management of patients in the ICU by taking an acting internship or elective on a critical care service. Other valuable rotations for a surgical career include: Radiology, Anatomic Pathology, and Cardiology. Other valuable rotations to consider are: Anesthesiology, Radiology, Critical Care, Emergency Medicine and Surgical Pathology.

Other early course suggestions for obtaining letters of recommendation:
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: