

**Class of 2019**  
**Guide to the Fourth Year**



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# SECTION I – OFFICE OF MEDICAL EDUCATION

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# A Note from the Office of Medical Education

Dear Class of 2019,

Congratulations! You have successfully completed half of your third year clerkships. It is now time to start planning for your fourth and final year of medical school.

The fourth year is very different from third year. You will have the opportunity to finalize your choice of specialty and do some electives that are of particular interest to you. This ability to build your own schedule combined with the residency application process can seem quite overwhelming at times. Rest assured that everyone in the Office of Medical Education is here to help you through these stressful times.

Over the next few months, you will begin to build your plan of study for next year. The materials provided in this document will provide all the important resources, deadlines, and procedures that you will need to complete your schedule. Please keep in mind that there is no “right way” to do this. You will find that you have a very different schedule than your classmates, even those classmates going into the same specialty.

The increasing competitiveness of the match will make it important for you to be thoughtful and plan strategically. I encourage you to utilize all the available resources including faculty, mentors, the Office of Medical Education, including the Office of Student Affairs, and the Careers in Medicine tool to guide you through this process. As always, we are here to meet with you to address individual issues as they arise. Do not hesitate to contact us.

Lastly, try to enjoy your fourth year of medical school while it will be stressful at times, it is a great year to just enjoy what you are doing and prepare for residency.

Sincerely,

A handwritten signature in blue ink that reads "Bobby Miller MD". The signature is cursive and includes the letters "MD" at the end.

Bobby Miller, MD, FAAP  
Vice Dean of Medical Education

# Graduation Requirements Checklist

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Below is a list of all requirements that must be met to be eligible for graduation.

- Diploma fee paid to bursars office (main campus) \_\_\_\_
- The following certifications must be completed:
  - Advanced Cardiovascular Life Support (ACLS) \_\_\_\_
    - Must be documented by submission of ACLS card to Office of Medical Education indicating successful completion of the cognitive and skills evaluations in accordance with the curriculum of the American Heart Association.
  - [Institutional Review Board \(IRB\) Collaborative Institutional Training Initiative \(CITI\)](#)
    - Renewed certificate must be valid during forth year courses
  - [Occupational Safety and Health Administration \(OSHA\)](#)
    - Renewed certificate must be valid during forth year courses
- The following exams must be completed prior to graduation
  - Passage of the USMLE Step 2 Clinical Skills exam
    - Exam must be scheduled before November 1<sup>st</sup>, 2018 to ensure delivery of scores
  - Passage of the USMLE Step 2 Clinical Knowledge exam
    - Exam must be scheduled before November 1<sup>st</sup>, 2018 to ensure delivery of scores
  - Passage of the Radiology Exam
    - Exam must be completed on or before April 1, 2019
- 100% completion of the Patient Encounter and Procedure Log
- Senior Loan Exit Interview with Financial Aid
  - Contact Cindy Canterbury with any questions
- Successful passage of the following fourth year course requirements:
  - 2 weeks Required Emergency Medicine (EMS 744)
  - 4 weeks Sub-Internship
    - Must be from approved list of Sub-I selective options
  - 2 weeks ICU
    - must be from approved list of ICU selective options
  - 28 weeks Elective
    - Must be qualifying electives that apply toward 4th year graduation requirements



# Timeline to Graduation

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## Dates to know during the Third Year

- **December 2017**
  - Begin Scheduling for USMLE Step 2 Clinical Skills (CS)
  - Authorizations and login details provided for VSAS
- **January 2018**
  - Begin Scheduling for USMLE Step 2 Clinical Skills (CS)
  - Receive VSAS Tokens
  - Fourth Year Scheduling Sessions
    - January 31, 2018 (Wed) 5pm – 7pm
- **February 2018**
  - Fourth Year Scheduling
    - February 12, 2018 – Required ER, Sub-I's & ICU will open up on Student Scheduler
- **March 2018**
  - March 2, 2018 - Required ER, Sub-I's & ICU will close.
    - To Schedule after this day, you must contact the coordinator of the course for approval. Please copy the Registrar on your message
  - March 23, 2018 - Registration Day (Friday) 4pm – 6pm
    - Elective scheduling begins at 6pm
- **April 2018**
  - Receive tokens for ERAS
  - Begin working on ERAS application
- **May 2018**
  - Hold career advising sessions with Amy Smith, Asst. Dean of Student Affairs
- **June 2018**
  - Register for Early Match Specialties and Military Match
  - Prepare CV and Personal Statement
  - Schedule Step 2 Clinical Knowledge (CK)

## Dates to know during the Fourth Year

- **July 2018**
  - July 2, 2018 – First Day of Year 4
  - Begin working on MSPE with Dr. Bobby Miller and Amy Smith
- **September 2018**
  - Register for NRMP for the Main Residency Match
  - Begin applying to specific programs via ERAS
- **October 2018**
  - October 1 - MSPE RELEASED on ERAS
  - October 31 - Deadline for scheduling Fall Semester Courses
    - Any course/rotation changes from this point may result on a “W” on your transcript
- **November 2018**
  - November 1 – Deadline to sit for USMLE Step 2 CK & CS
- **February 2018**
  - February 2 – May Graduation Application Due to Office of Medical Education
  - February 2 - Deadline for payment of Diploma Fee
  - February 23 - Deadline for scheduling spring semester courses
    - Any course/rotation changes from this point may result on a “W” on your transcript
  - February 20 - NRMP Rank Order list certification deadline
- **March 2019**
  - March 11 - Filled/unfilled results for individual programs posted to web at Noon Eastern
  - March 12 - Programs with unfilled positions must finalize first round Supplemental Offer and Acceptance Program (SOAP) preference lists by 11:30 am Eastern
  - March 15 - Match Day; SOAP concludes at 5pm Eastern
- **April 2019**
  - April 1 - Last day to have taken and passed the Required Radiology Exam
  - Optional Graduation Questionnaire will be released
- **May 2019**
  - May 10 – Investiture
  - May 11 - OFFICIAL DATE FOR GRADUATION --Use this date on all documentation (i.e. residency and medical licensing forms)

# Scheduling USMLE Step 2 CS

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Because there are only 5 test centers (in the country), and also because many other med schools have similar “sit by” deadlines, there are not enough scheduling appointments available for every medical student in the nation. To gain the advantage you need to start scheduling as soon as you get your financial aid for the spring semester.

Approximately 1 month prior to your scheduled Step 2 CS exam, you are **required** to meet and review your MS3 Final CCE performances with either Dr. Bobby Miller or Dr. Sean Loudin. These meetings will be set up by an administrator of the Clinical Skills Center.

## “SIT BY” Deadline:

You must pass both the USMLE Step 2 CS and Step 2 CK in order to graduate. The “SIT BY” DEADLINE for both of these exams is November 1st. Any student who is delayed 2 rotations may sit for CS, prior approval must be obtained by Dr. Bobby Miller, Dr. Laura Richardson, or Amy Smith. This sit by date is REQUIRED to ensure that we get exam results reported in time to certify you on the Official University Graduation Report with the main campus Registrar’s office. You should also have your scores in time to be reported MATCH.

## Know The Rules:

Before applying for the USMLE Step 2 exams you must become familiar with policies and procedures in the [USMLE Bulletin of Information](#) published for the specific year you will be taking the exam. This bulletin provides information on the following topics:

- Overview
- Eligibility
- Examination Content
- Preparing for the Test
- Applying for the Test and Scheduling Your Test Date
- Testing
- Scoring & Score Reporting
- Indeterminate Scores and Irregular Behavior
- Communicating With USMLE

## Apply for a Scheduling Permit

Once you have reviewed the Bulletin, you may apply for the USMLE Step 2 CS by logging into the NBME website for [Licensing Examination Services](#). The permit eligibility period for the USMLE Step 2 CS is 12 months. Per the USMLE Bulletin, there is no fee to reschedule within your eligibility period if you cancel and reschedule more than 14 calendar days before (but not including) your scheduled test date. So scheduling an exam early will not cause you to incur any additional costs should it become absolutely necessary to reschedule (provided you give appropriate cancellation notice). The scheduling permit includes instructions on how to contact Prometric to schedule a test date appointment.

## Selecting a Test Date

You cannot take the Step 2 CS during your third year, but you may schedule the exam for a date occurring as soon as your third year ends. There is NO advantage to selecting a LATE test date (for example, after the deadline in November or December). Graduates have consistently reported that readiness for this exam is at its optimal level upon completion of the third year and diminishes as you get further into the fourth year. If you take the exam at a later date and do not pass, you may not be able to reschedule it in time to graduate in May. In the event, you should need to reschedule and the calendar shows no openings, applicants who are registered for the exam can participate in an email notification system. You are notified by email when a testing appointment becomes available due to cancellation. Be advised that there is a lot of competition for the cancelled slots; and there is no guarantee you will get an exam appointment.

## Selecting a Test Site

There are Five Clinical Skills Evaluation Centers located in the country:

- Atlanta, Georgia  
Clinical Skills Assessment Center  
Two Crown Center  
1745 Phoenix Boulevard, Suite 500  
Atlanta, GA 30349-5585
- Chicago, Illinois  
Crossroads Center at O'Hare  
6th Floor  
8501 West Higgins Road  
Chicago, IL 60018
- Houston, Texas  
Clinical Skills Assessment Center  
400 North Sam Houston Parkway, Suite 700  
Houston, TX 77060
- Los Angeles, California  
Clinical Skills Assessment Center  
Pacific Corporate Towers  
100 North Sepulveda Boulevard  
El Segundo, CA 90245
- Philadelphia, Pennsylvania  
Clinical Skills Assessment Center  
3624 Market Street  
Philadelphia, PA 19104

Check the AAMC website for [Clinical Skills Hotel Rates](#) negotiated by the AAMC to assist students with travel expenses associated with the Clinical Skills exam.

### USMLE Step 2 CS Score Reporting:

USMLE exam scores are always reported on Wednesdays. Results for the USMLE Step 2 CS are reported in batches for examinees testing over a defined period of time. As shown in the table below the USMLE Step 2 CS reporting schedule for 2018 includes test dates through December 31<sup>st</sup>, however the Deadline for May Graduates is November 1<sup>st</sup>, 2018.

Testing Period	Reporting Start Date	Reporting End Date
January 1 - January 27	March 7	March 28
January 28 - March 24	April 25	May 23
March 25 - May 19*	June 20	July 18
May 20 - July 14	August 15	September 12
July 15 - September 8	October 10	November 7
September 9 - November 3	December 12	January 9, 2019
November 4 - December 31	January 30, 2019	February 20, 2019

\*No Step 2 CS exams will be delivered March 26 through March 31.

# Scheduling Courses in the Fourth Year

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Fourth year students have three types of courses they must complete to be eligible for graduation. Each of these groups has its own unique process for scheduling. The course groups are:

- Required courses
  - Emergency Medicine
  - Sub-Internship
  - ICU Selective
- Externships
- MUJCESOM electives

In order to ensure that students have an opportunity to be scheduled for the required courses according to their career goals, and because there is limited flexibility for dates to schedule them, required courses must be scheduled BEFORE externships or electives.

The Required Courses include:

- 2 weeks of Required Emergency Medicine (EMS 744)
- 4 weeks of a sub-internship in one of the following selective options:
  - Sub-Internship in Family Medicine (FCH 827)
  - Sub-Internship in Internal Medicine (MED 827)
  - Sub-Internship in Obstetrics (OBG 827)
  - Sub-Internship in Orthopedics (ORT 827)
  - Sub-Internship in Pediatrics (PED 827)
  - Sub-Internship in Psychiatry (PSI 827)
  - Sub-Internship in Surgery (SUR 827)
- 2 weeks of ICU in one of the following selective options:
  - Medicine ICU (MED 833)
  - Pediatric Critical Care (PED 807)
  - Clinical Neonatology (PED 805)
  - Surgical ICU (SUR 833)

# Scheduling Fourth Year Required Courses

All fourth year students are required to schedule two weeks of Emergency Medicine, two weeks of an ICU Selective and four weeks of a Sub Internship. **You must complete these courses with Marshall. Away SUB-I's, ICU's and Emergency Med courses cannot be counted towards the required 8weeks.**

The courses that can be used to fulfill those required weeks are as follows:

- Required Emergency Medicine
  - Emergency Medicine (EMS 744) – Mitch Charles, MD
- ICU Selective Options:
  - Medicine ICU (MED 833) – Imran Khawaja, MD
  - Pediatric Critical Care (PED 807) – Sean Loudin, MD
  - Clinical Neonatology (PED 805) – Sean Loudin, MD
  - Surgical ICU (SUR 833) – Rebecca Wolfer, MD
- Sub-Internship Selective Options
  - Sub-Internship in Family Medicine (FCH 827) – Stephen Petrany, MD
  - Sub-Internship in Internal Medicine (MED 827) – Samson Teka, MD
  - Sub-Internship in Obstetrics (OBG 827) – David Jude, MD
  - Sub-Internship in Orthopedics (ORT 827) – Felix Cheung, MD
  - Sub-Internship in Pediatrics (PED 827) – Sean Loudin, MD
  - Sub-Internship in Psychiatry (PSI 827) – Kelly Melvin, MD
  - Sub-Internship in Surgery (SUR 827) – David Denning, MD

## Student Scheduler

The Student Scheduler is a software application internal to the School of Medicine. Students will utilize this system to request preferred dates for Emergency Medicine, Sub-Internships and ICU selectives. The Student Scheduler will be temporarily modified so that only the Emergency Medicine, Sub-I and ICU courses will be listed in the “Drop Down” list. Students will have approximately 3 weeks to complete scheduling of the fourth year required courses. Students may NOT schedule two ICU courses or two Sub-Internships. If you are interested in Emergency Medicine, you may request a four week rotation. You may also request two, two week rotations at different times. Please note there is another Emergency Medicine Elective (EMS 710) if you decide after the required scheduling period to take additional weeks in the ER.

To request courses using the “Student Scheduler”, Login as a Student at:

- <https://somwebapps.marshall.edu/students/scheduler/>

In the lower half of the page you will notice a yellow box entitled “Request Selective”:

Request Selective:	
Please check <a href="#">Elective Courses with specific start and end dates [PDF]</a> before you attempt to schedule	
Top of Form	
Start Date:	End Date:
(You must specify the appropriate YEAR in the Start and End Date fields)	
Location:	
Notes:	Notes that you include here will be visible to all users of the scheduling system, including you, the Clerkship Coordinator and Administrators from Office of Medical Education.

Be careful to select the appropriate number of weeks for each course type (ER is 2wks; Sub-Is are 4 weeks; ICUs are 2 weeks). Make sure your end date is not earlier than your start date, or an error message will be displayed

In the NOTES section you can specify if you are seeking a certain preceptor for a letter of recommendation or other notes you want the coordinator to take into consideration for processing your request.

When you click “Request This Selective” you will immediately get an automatic email notification indicating whether or not you made the request successfully. If the request was entered correctly then it is automatically transmitted via email to the respective coordinator. The coordinator will process the request as quickly as possible to indicate “approved” or “denied”. If your request is denied then you will need to submit a new request for different dates. For expediency, contact the course coordinator to find out where there are available openings.

### Required Course Scheduling Notes

- Department Coordinators will be provided a list (compiled from your career advising sessions with Amy Smith) that indicates the residency program that each student has declared. The list will serve as a reference to determine which students should be given priority consideration for the ICU, Sub-Internships and Emergency Medicine dates. For example, if two students have requested Pediatric Critical Care during the same dates (and if only one slot remains available) a student who has declared Pediatrics as the residency program they intend to pursue will be given preference. If both students declared Pediatrics then the decision would be based on degree of certainty and then on first come first serve.
- After the deadline to schedule required courses, the Emergency Medicine, ICU and Sub-I courses will be removed from the student view of the drop down list and will be replaced with the elective course offerings. If you need to schedule Required Emergency Medicine, SUB-I's or ICU's after they are closed, you will need to check availability with the coordinator and have the coordinator contact someone in Office of Medical Education to add this to your scheduler.
- There is a limit of 7 students per each 2wk block Emergency Medicine. Emergency Medicine is scheduled based on information entered in the Student Scheduler and the list of preferred residencies. Students who have declared Emergency Medicine as the residency program they intend to pursue will be given the first priority in scheduling.
- Every reasonable effort is made to allow students to design their respective fourth year schedules so that they are in the best position possible to have success in the National Resident Matching Program (NRMP). Scheduling preferences include getting the necessary courses scheduled in a sequence that facilitates preparation for externships and acquiring letters of recommendation. To ensure that coordinators are able to determine which students should be given preferential consideration for requested dates, the students must declare the residency they plan to pursue.
- The Block Planner is a template that defines the dates for fourth year blocks and indicates the specific dates for courses that have exclusive offerings or sessions and are not available for scheduling throughout the fourth year. See planner on next page.



## Block Planner

### 2018-2019 Block Planner for Fourth Year Medical Students

Student Name: \_\_\_\_\_

Intended residency specialty: \_\_\_\_\_

Block	# of Wks	BLOCK DATES (2 wk increments)	COURSE NAME	# OF WEEKS	NOTES
1	2	Jul 2 – Jul 13			
	2	Jul 16 – Jul 27			
2	2	Jul 30 – Aug 10			
	2	Aug 13 – Aug 24			
3	2	Aug 27 – Sep 7			
	2	Sep 10 – Sep 21			
4	2	Sep 24 – Oct 5			
	2	Oct 8 – Oct 19			
5	2	Oct 22– Nov 2			
	2	Nov 5 – Nov 16			
6	2	Nov 19 - Nov 30			
	2	Dec 3 – Dec 14			
7	2	Dec 17 – Dec 28			
	2	Dec 31 – Jan 11			
8	2	Jan 14 – Jan 25			
	2	Jan 28 – Feb 8			
9	2	Feb 11 – Feb 22			
	2	Feb 25 – Mar 8			
10	2	Mar 11 – Mar 22			
	2	Mar 25 – Apr 5			
11	2	Apr 8 – Apr 19			
	2	Apr 22 – May 3			Courses ending after this block may result in a hold on diploma.

## Sample Block Planner

<b>2018-2019 Block Planner for Fourth Year Medical Students</b>					
<b>Student Name:</b> _____					
<b>Intended residency specialty:</b> _____					
Block	# of Wks	BLOCK DATES (2 wk increments)	COURSE NAME	# OF WEEKS	NOTES
<b>1</b>	2	Jul 2 – Jul 13			Study CK/CS
	2	Jul 16 – Jul 27			Study CK/CS
<b>2</b>	2	Jul 30 – Aug 10	EMS 744	2	
	2	Aug 13 – Aug 24	MED 803	2	
<b>3</b>	2	Aug 27 – Sep 7	Rural Readings + PED 803	4	Can schedule non-patient and patient contact together (if readings or research)
	2	Sep 10 – Sep 21	MED 805	2	
<b>4</b>	2	Sep 24 – Oct 5	Away Rotation	2	
	2	Oct 8 – Oct 19	Away Rotation	2	
<b>5</b>	2	Oct 22– Nov 2	Away Rotation + International Readings	4	Can schedule non-patient and patient contact together (if readings or research)
	2	Nov 5 – Nov 16	Reserved for Interviews		
<b>6</b>	2	Nov 19 - Nov 30	PED 808	2	
	2	Dec 3 – Dec 14	Reserved for Interviews		
<b>7</b>	2	Dec 17 – Dec 28	EMS 710	2	
	2	Dec 31 – Jan 11	ICU	2	
<b>8</b>	2	Jan 14 – Jan 25	FCH 800 + Med Spanish	4	Can schedule non-patient and patient contact together (if readings or research)
	2	Jan 28 – Feb 8	SUR 806	2	
<b>9</b>	2	Feb 11 – Feb 22	SUB - I	2	
	2	Feb 25 – Mar 8	SUB - I	2	
<b>10</b>	2	Mar 11 – Mar 22			
	2	Mar 25 – Apr 5			
<b>11</b>	2	Apr 8 – Apr 19			
	2	Apr 22 – May 3			Courses ending during this block may result in a hold on diploma.

# Scheduling Electives

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After the deadline to schedule selective courses, the ICU and Sub-I courses will be removed from the student view of the drop down list and will be replaced with the elective course offerings. This will coincide with a class meeting called "Registration Day". The agenda for Registration Day includes the following:

- Presentation of a various electives by course directors (For example, International Health, Wilderness Medicine, Academic Medicine)
- Review of 4th year requirements and scheduling restrictions and the nuts and bolts of using the Student Scheduler
- 6pm – green light to begin requesting elective dates.

A current list of elective offerings can be found on the webpage for [4th Year Resources](#)

- <http://jcesom.marshall.edu/students/ms-4-student-resources/>

To be eligible for graduation you must successfully complete a MINIMUM of 28 Elective weeks and those weeks must not violate the following restrictions:

- Elective courses must be at the 4th year level
- Must be a minimum of two weeks in duration with the following exceptions
  - Essentials of EKG (CVS 800)
  - Departmental approval
- Non-Patient Contact Electives are limited to 6 weeks with the following exception:
  - Students may, with permission of the course director, schedule up to 12 weeks of a basic science research elective. All remaining electives that are scheduled to fulfill graduation requirements must be "patient contact" type electives.
  - Research courses must all be under the same discipline areas and must be with a MUSOM Faculty member.
- Out of State electives are limited to 16 weeks.

## Non Patient Contact Electives

Limited to 6 weeks of the following courses, with exception of approval of 12wks of basic science research. This must be approved prior to registering for in the student scheduler and you must notate who you will be working with in the comments section. The MUSOM Registrar must be notified if you elect to take 12wks of basic science research and you cannot take any other non-patient contact electives that will count towards graduation.

- Surgical Anatomy (ACB 813)
- Medical Spanish (FCH 885)
- Readings (FCH 855 & FCH 857)
- Clinical Research (NEU 805, ORT 809, PED 809, PSI 820, SUR 814)

## Course Numbers for certain types of electives:

- Out of State courses = Dept. + 868 (i.e. Internal Medicine at UVA is MED868)
- Rural courses = Dept. + 888 (i.e. Rural Ob/Gyn is OBG 888)
- WV courses = Dept. + Course# + WV (i.e. General Surgery at WVU is SUR801-WV)
  - This is only to be used for courses that are not with MU physicians/faculty but are in the state of WV

## Unique Courses

- Forensic Pathology (PTH 802)
  - Completed at the Medical Examiner's Office in Charleston.
- Academic Medicine (IDM 801)
  - Longitudinal course. Limited to 2 wks. Schedule during any two week block, but you will have until Spring to complete the required number of contact hours. Participation must be held in each semester.
- Medical Spanish (FCH 885)
  - Select a two week period in either the fall or spring semester
    - Session dates to be announced.
- Hospital Medicine (MED 826)
  - Limited to 2wks per student in their MS4 year

## Important Scheduling Notes

- Pay attention to Start and End dates in the Student Scheduler (if you've requested an elective for 552 weeks then you've made an error. Please cancel and resubmit)
- Indicate everything you know about the request you are submitting:
  - Location and Preceptor
  - Use the "Notes" field to provide any details you want to convey to the coordinator.
- 14 Day Rule - Electives cannot be scheduled, cancelled, or changed 14 days prior to the start date of the rotation. Such requests are automatically denied by the system!
  - If you need to make changes when this rule is in effect, please send an email to the Registrar and copy the course coordinator to cancel or make changes.

## Other Entries Scheduled

- Excused Absences
  - Requests to be excused for an exam or interview must be submitted using the Student Scheduler. Use Dept. + 999. (For example, to request an excused absence from Radiology, you would enter RAD999)
- Step 2CK
  - Course Number is ACA2CK
    - Please only enter the date you are taking the exam. We do not give credit for study time or prep.
- Step 2CS
  - Course Number is ACA2CS
    - Please only enter the date you are taking the exam. We do not give credit for study time or prep.

## Accuracy of Schedule

In order for final registration to be correct, it is imperative that the Student Scheduler represent an accurate accounting of the courses you are taking. The Registrar will review your schedule, but it is important that students review each entry for accuracy.

- FREQUENTLY review your schedule in the Student Scheduler to ensure that requests have been approved, and course numbers and dates are correct.
  - Please do not begin a rotation that has not been approved. If you have any difficulties contact someone in the Office of Medical Education.

- Ensure that cancellations and withdraws are timely made and as a professional courtesy follow up with an email to the course coordinator explaining that you are not attending as planned.
  - This is especially important in November and February when the Registrar is reconciling your schedule with main campus to ensure your final official university transcript is correct.
- For all approved electives, be sure to contact coordinator 1 week prior to start date for reporting information.
- To view your entire schedule, please click the “Full Academic Year” on the Time Period Menu when viewing your schedule:
  - <https://somwebapps.marshall.edu/students/scheduler/students/>

#### View My Rotation Schedule:

Status:  Requested

Approved

Denied, Withdrawn or Canceled

Time Period:  Current & Upcoming Only

Full Academic Year

[View Schedule >>](#)

## Evaluations

At the end of each course provide your preceptor with an evaluation form (see example on next page). For required courses, your evaluations will be submitted in New Innovations.

Untimely receipt of an evaluation can result in an Incomplete for the course. Please provide a copy of this evaluation to all off-site or Away rotations. We do not automatically send these, unless the site or the student requests for us to send. You can find the evaluations here:

- <http://jcesom.marshall.edu/students/ms-4-student-resources/>
  - Away Rotation Evaluations

Be sure to complete the top section of the form: **name, course number, course description, dates, preceptor, and location.** The class photo which is available on the web happens to fit perfectly the box on the evaluation form. Your photo is not required, but it is helpful for preceptors who see several students or for preceptors at externships who haven't known you for very long. If no evaluation is received, then no credit will be awarded for the course.

## MARSHALL UNIVERSITY MEDICAL CENTER FACULTY EVALUATION OF STUDENT PERFORMANCE

<b>Student Photo</b>	MUSOM COURSE # :	PRECEPTOR/ATTENDING NAME:	<b>PLEASE RETURN THIS FORM TO:</b> Michelle Ruppert Registrar 1600 Medical Center Drive, Ste. 3415 Huntington, WV 25701 PHONE: (304) 691-1731 FAX: (304) 691-1740
	COURSE DESCRIPTION:		
	DATES:	LOCATION:	
	NUMBER OF DAYS MISSED: REASON (S):		
<b>STUDENT NAME</b>			

I ATTEST THAT I HAVE HAD NO PROVIDER RELATIONSHIP WITH THIS STUDENT.

DOES THIS STUDENT PASS PROFESSIONALISM?  YES  NO IF NO, STOP HERE, AND DO NOT COMPLETE EVALUATION

PLEASE COMMENT ON THE STUDENT'S PERFORMANCE NOTING STRENGTHS AND WEAKNESSES: \_\_\_\_\_

Are there any aspects of this student's performance that suggest a need for special attention?  YES  NO  MAYBE

Degree of confidence in your estimate of the student:  VERY CONFIDENT  FAIRLY CONFIDENT  NOT AT ALL CONFIDENT

	1	2	3	4	5
<b>PROFESSIONALISM</b>	Does not accept responsibility; inappropriate or immature behavior	Generally denies responsibility; frequently uses inappropriate or immature behavior;	Usually exhibits good judgment in personal and professional situations	Often exhibits good judgment and maturity.	Exceptional professional conduct; demonstrates maturity, excellent judgment
<b>SELF DIRECTED LEARNING/ LEARNING ATTITUDE</b>	Does not exhibit motivation, shows little evidence of independent work	Frequently does not explore independent learning opportunities	Conscientious worker who is receptive to teaching and feedback	Often shows interest in independent learning opportunities and feedback	Exceptionally hard worker who maximizes learning opportunities
<b>INTERACTIONS WITH PATIENTS</b>	Relationships are often distant, strained or dysfunctional	Relationships are cool or awkward	Usually forms constructive, professional relationships	Conveys exceptional warmth and understanding	Skillfully uses rapport for therapeutic gain
<b>BASIC CLINICAL KNOWLEDGE</b>	Major deficiencies in many areas	Generally adequate with minor deficiencies in important areas	Generally appropriate to student level	Generally above average depth in important areas	Outstanding
<b>CLINICAL REASONING SKILLS</b>	Usually illogical or impractical	Frequently illogical or impractical	Usually logical and practical	Almost always logical & practical	Frequent astute insights
<b>HISTORY TAKING SKILLS</b>	Often misses major important findings	Frequently misses relevant data or obtains inaccurate information	Usually elicits most relevant data; almost always accurate	Almost always elicits all relevant clinical data; always accurate	Elicits data efficiently and in great depth, when appropriate
<b>PHYSICAL EXAMINATION SKILLS</b>	Often misses major important findings	Frequently misses or makes inaccurate findings	Usually identifies findings accurately	Almost always identifies important findings with accuracy	Often discovers subtle physical findings
<b>DIAGNOSTIC DECISION-MAKING SKILLS</b>	Often does not identify major patient problems; Differential diagnosis skills are poor	Frequently identifies major patient problems; Differential diagnosis skills are adequate	Usually identifies major patient problems; Differential diagnosis skills are appropriate to level	Often reveals exceptional insight; Differential diagnosis skills are above average	Often reveals exceptional insight; Differential diagnosis skills are excellent

**OVERALL EVALUATION** - Please circle:    Pass    Fail

\_\_\_\_\_  
Faculty Signature

\_\_\_\_\_  
Date

# Scheduling Away Rotations

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## Why students apply for away rotations?

There are 3 main reasons students participate in externships:

- To get a Letter of Recommendation.
- To audition for residency. It is sometimes necessary to rotate at some programs before they will offer an interview. However, there is no guarantee you will get an interview.
- For fun!

There are also a few disadvantages to externships to consider:

- Costly (transportation and housing)
- Must quickly learn new electronic record system and layout of new location
- Any missteps can hurt chances of getting an interview

## How to apply for an away rotation?

Applying for an externship is generally accomplished one of two ways:

- 1) An application system designed by the school you intend to visit which is usually posted on their website.
- 2) The online Visiting Student Application System known as VSAS which is managed by the AAMC.

If you are seeking an externship at an LCME school, you can find the visiting application process they utilize at the AAMC website for [On-Line Extramural Electives Compendium](#).

It is not permitted to begin scheduling externships before required courses are scheduled. However, students can prepare for applying in advance by gathering all the documentation typically required by programs and getting the profile in VSAS verified.

## Using VSAS

In order for you to access VSAS, you must first be issued “authorizations”. Each student is issued fifteen authorizations by the Office of Medical Education. This means you can submit 15 applications. If you need more, email a request to Robbie Nance or Michelle Ruppert and more authorizations will be added to your account.

The steps to use VSAS are as follows:

- 1) Complete the application profile. This will require the following information:
  - General and Emergency Contact Information
  - Date you finished your third year clerkships\* (\*Note: Use the same dates for Psychiatry and Neurology)
  - Photograph - If you would like to use your class photo, send an email to Robbie Nance. The original photo file uploads better than copying the photo from the web.
- 2) Review the host institution’s application requirements:
  - Fees
  - Dates they begin accepting and processing applications.
  - Supplemental documentation
  - Check this link for current VSAS host institution information: <https://services.aamc.org/20/vsas/public/schools/>

- 3) Upload and Assign Documents\*\* – Institutional requirements vary, below is a list of frequently requested items, also indicated is the office where you can get that info.
- CV -- Student
  - Unofficial Transcript – Office of Medical Education
  - Mask Fit test results - Office of Medical Education or Occupational Health
  - USMLE Step 1 transcript – Student (Office of Medical Education may have a copy if the student emailed the report to Office of Medical Education)
  - Letter of Good Standing – Office of Medical Education
  - Copies of ACLS or BLS cards – Office of Medical Education or Student can upload
    - Must have provided a copy to Office of Medical Education for us to upload
  - Background Check (Verified Report) – Student Affairs
  - HIPAA certification – Office of Medical Education
  - Certification of Malpractice Coverage – Office of Medical Education

\*\*Be sure that you ASSIGN each document to the respective institution that requires the information. If you do not assign the documents then the host institution cannot view them even though they are loaded on your profile.

- 4) Searching and Saving Electives
- Utilize the VSAS search form to find electives based on the search criteria: Keywords, Specialty, Institution and/or location, Start Month of an elective. While reviewing your search results you may save the electives and dates in which you are interested. You may save the same elective multiple times with different dates. The “Save” button will only be available on electives for which the institution is currently accepting applications.
- 5) “Apply” to Electives
- Select one or more of your saved electives and arrange them in order of preference by institution. Enter your credit card information to pay for the VSAS application fees and submit your applications. [The fee for the first institution applied to is \$35, regardless of the number of electives applied for at that institution. The fee for each additional institution is \$15, again, regardless of the number of electives applied for at those institutions.]

**BEWARE OF TERMINOLOGY! “APPLIED” in the VSAS world means that you have submitted electives and paid – It does NOT mean that your application is now off to the institution for consideration. There are two more steps before that happens.**

- 6) Immunizations
- Almost every institution will require you to upload an immunization form (usually they have their own specific form), and it is ONLY after you apply to the elective that you can upload the Immunization form. Getting the required immunization form(s) and uploading on VSAS can be accomplished as follows:
    - Use the “Institutions” tab to access and print out the immunization form(s) required for each program. (This step can be done in advance of “applying”)
    - Get a copy of your personal immunization record
    - Transfer the information from your records to the required forms
    - Email Diane Alcorn at [alcorn2@marshall.edu](mailto:alcorn2@marshall.edu) to let her know that you will be stopping by for her review and sign the form. In the event Diane Alcorn is unavailable to review or sign forms, Amy Smith is authorized to do so.
    - Upload to VSAS and assign the institution(s). (Again, this can only be done after you have “applied”)



- 7) **RELEASE of application** - After you “apply”, The Office of Medical Education receives an email from VSAS that you have an application ready for verification and release. At this point, you may or may not have finished loading all of the necessary documentation. If your application is incomplete it will not be released until required documents are uploaded. As soon as your application is complete and released, it is viewable by the institution(s) to which you have applied. Refer to the “Institutions” tab for the date that actual processing will begin or check this link: <https://services.aamc.org/20/vsas/public/schools/>
- 8) **Track Offers** -You can track each submitted application by clicking on your Applications tab in VSAS. Each submitted application will be listed and its current status displayed. The following actions, if necessary, can be done from this tab:
  - Accept or decline offers received from host institutions. If you don't respond to an offer within a timeframe set by the host institution, it will expire.
  - Modify submitted applications by changing your preferred dates or reordering your applications.
  - Drop your accepted offers.
  - Withdraw pending applications.
- 9) **Read E-mails**
  - Make sure the e-mail address in your VSAS profile is correct, as you will receive e-mails notifying you of:
    - Offers for electives.
    - Electives applied for, but which are not available.
    - Scheduling conflicts between offered and/or already scheduled electives. These conflicts must be resolved 30 days before the start of the first elective.
    - Offers made by host institutions with impending expirations.
    - Cancelled electives to which you have applied or been scheduled.

**If the externship you are seeking is at a school that is not at an LCME accredited program, then you will need to check with Office of Medical Education to find out if a rotation can be approved at that location.**

# Time For Interviews

There are 44 calendar weeks available during the fourth year. You are required to schedule 36 weeks. It is expected that you will utilize the 8 extra weeks for board exams and interviews. Use the chart below to determine when your peak interview season will be and avoid scheduling electives during that period.

Hopefully, Required Courses will not conflict with your peak interview period. If that happens, you will likely need to reschedule those courses. Should that be necessary, contact the coordinator directly since the Sub-I and ICU courses will no longer be available on the Student Scheduler.

Interviews are not counted as excused absences. If you will need to miss more than one or two days of a rotation, you must reschedule that rotation or work out a make up schedule with the department.

	October	November	December	January
Anesthesia	-----	-----+++++	+++++	+++++
Derm	-----	-----	+++++ +	+++++ +
ER	-----	-----+++++	+++++	+++++
Family	-----++	+++++	+++++	++++-----
Gen Surg	-----	+++++	+++++	++++-----
Internal	-----+++	+++++	+++++	++++-----
Neuro Surg	-----	+++++	+++++	++++-----
ObGyn	-----+++	+++++	+++++	++++-----
Ortho	-----	-----	+++++	+++++
Peds	-----++	+++++	+++++	++++-----
Rads	-----	+++++	+++++	+++++

## Links to helpful resources:

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From the National Residency Match Program (NRMP) website:

- [Results of the 2016 NRMP Program Director Survey](#)
  - Presents results of selected items from the 2014 NRMP Program Director Survey. Data reported for 23 specialties includes: Factors used for granting interviews and ranking applicants; Use of the USMLE exam scores; Percentage of interview slots filled prior to the October 1 release date of the MSPE. Information may be found at <http://www.nrmp.org/wp-content/uploads/2016/09/NRMP-2016-Program-Director-Survey.pdf>
- [Charting Outcomes in The Match, 2016 7<sup>th</sup> Edition](#)
  - Characteristics of Applicants Who Matched to Their Preferred Specialty in the 2014 NRMP Main Residency Match. Information may be found at <http://www.nrmp.org/wp-content/uploads/2016/09/Charting-Outcomes-US-Allopathic-Seniors-2016.pdf>

# Frequently Asked Questions:

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**Q: What if don't get an interview at a program that I've applied to for an externship?**

A: Once you've accepted an externship, you should attend. A school has offered you a position that could have otherwise gone to another student. Dropping an elective when you find out that an interview is not going to be offered is considered unprofessional, and is strongly discouraged.

**Q: How long should I wait for a request to be processed on the Student Scheduler?**

A: Sub-Is and ICUs should be processed within 5 days. Electives may take longer. However, if you have an elective request that has not been processed within 10 days then contact the coordinator to find out the status.

**Q: What if I am scheduled for a required course during the appointment for a USMLE Board exam?**

A: The attendance policy permits you to be excused one day for the USMLE Step 2 CK and up to three days for the USMLE Step 2 CS.

**Q: When can I apply for externships?**

A: You must wait until your required courses are scheduled, and then you can begin to apply as soon as the program(s) open their respective catalog which varies from March to May.

**Q: How much does it cost to use VSAS?**

A: The first institution is \$35.00. Each subsequent institution is \$15.00. (It does not matter how many elective requests you submit to each institution). For example if you submit four different requests to WVU and 6 requests to Wake Forest the fee is \$50.00. Institutions might charge application fees in addition to the VSAS fees. If so, payment is usually not required until approval is confirmed.

# SECTION II - STUDENT AFFAIRS

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# A Letter from Amy Smith

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Dear Rising Fourth Year Students:

On behalf of the Office of Student Affairs, congratulations for becoming Rising Fourth Year Students!

The information that follows has been collected from a variety of sources and will serve as an overview to the activities that take place from this point forward and into your fourth year. There is a lot of information to digest but please do not allow it to overwhelm you!

At this point, you may be asking, “Where should I be in the process?” and the answer is simple. You should be considering what you liked and what you did not like about your clerkships. A useful way to do this is to go to the AAMC Careers in Medicine (CiM) website <https://www.aamc.org/students/medstudents/cim/> and complete the Clinical Rotation Evaluation. I will provide a copy for you at the end of this document. As recommended by CiM, while completing your rotations, consider how your values, interests, skills, and practice needs might be met by the specialties you're exploring. For example, how do you feel about?

- Providing inpatient vs. outpatient care?
- Continuity of care?
- Working with different age ranges?
- Working with one or both genders?
- Providing diagnostic-oriented care vs. performing procedures?
- Dealing with breadth vs. depth of patient problems?
- Providing short-term vs. long-term or continuous care?
- Having direct vs. indirect communication with patients?

It is perfectly normal if you have not yet decided on a specialty. After all, you have not had all the clinical experiences you need to make this decision. There are a number of things planned that will assist you. As you will see in this document, I will be meeting with you frequently. In addition, you have advisors from whom you can seek advice and, after the current fourth years match in March, they will put on a program for you so that you can benefit from their experience and ask questions.

We will be with you every step of the way from your decision making process to the day that you find out where you will be completing your residency. Do not hesitate to call upon me as you see fit as I am always available to you.

Sincerely,

Amy Smith, BSN M. Ed.

Assistant Dean, Office of Student Affairs

# Frequently Used Abbreviations and Terms

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CiM	AAMC Careers in Medicine ( <a href="https://www.aamc.org/students/medstudents/cim/">https://www.aamc.org/students/medstudents/cim/</a> )
FRIEDA	Fellowship and Residency Interactive Electronic Database ( <a href="http://www.ama-assn.org/ama/pub/education-careers/graduate-medical-education/freida-online.page">http://www.ama-assn.org/ama/pub/education-careers/graduate-medical-education/freida-online.page</a> )
ERAS	Electronic Residency Application Service ( <a href="https://www.aamc.org/students/medstudents/eras/">https://www.aamc.org/students/medstudents/eras/</a> )
NRMP	National Resident Matching Program ( <a href="http://www.nrmp.org/">http://www.nrmp.org/</a> )
ROL	Rank Order List—preferences submitted by you and your selected programs in February
MSPE	Medical Student Performance Evaluation ( <a href="https://www.aamc.org/download/139542/data/mspe.pdf">https://www.aamc.org/download/139542/data/mspe.pdf</a> .)
SOAP	The process through which positions offered by unfilled programs are accepted by unmatched applicants during Match Week (formerly known as the Scramble).

It is important to understand the types of residency training available as you choose a specialty and begin applying for residency positions. There are different types of training programs depending on your specialty choice. Some of the positions offered through the NRMP Main Residency Match include:

- Categorical-C: programs that begin in the PGY-1 year and provide the full training required for specialty board certification.
- Primary-M: categorical programs in primary care medicine and primary care pediatrics that begin in the PGY-1 year and provide the full training required for specialty board certification.
- Advanced-A: programs that begin in the PGY-2 year after a year of prerequisite training.
- Preliminary-P: one-year programs that begin in the PGY-1 year and provide prerequisite training for advanced programs.
- Physician-R: programs that are reserved for physicians who have had prior graduate medical education. Reserved programs offer PGY-2 positions that begin in the year of the Match and thus are not available to senior medical students.

Some specialties may offer both categorical and advanced type positions. Examples are Dermatology, Anesthesiology, Neurology, Physical Medicine and Rehabilitation, and Diagnostic Radiology.

More information can be found at: <http://www.nrmp.org/intro-to-main-residency-match/>

# Preparing For Your Fourth Year

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## Narratives

Stay focused on your remaining clerkships. Remember that information in the narratives from your clerkships are included in your Medical Student Performance Evaluation (MSPE to be described in a subsequent section). Review your narratives as you go along. If there are problems noted, take them to heart and make sure they do not appear again. Strive for exceeding expectations by actively seeking out learning opportunities, show professionalism and great teamwork in all your interactions. Remember you will be asking for letters of recommendation from the attending with whom you worked.

## Curriculum Vitae

Utilize your advisor as a resource in the process. Utilize the AAMC Careers in Medicine (CiM) website(<https://www.aamc.org/students/medstudents/cim/>) that has a tremendous amount of resources that will be of great help to you, including CV development.

## Fellowship and Residency Interactive Electronic Database

You may begin research residencies by going to Fellowship and Residency Interactive Electronic Database (FRIEDA). FREIDA Online<sup>®</sup> is a database with over 9,000 graduate medical education programs accredited by the Accreditation Council for Graduate Medical Education, as well as over 100 combined specialty programs.

## Electronic Application Service (ERAS)

In May, you will be receiving a “token” from the Office of Student Affairs that will allow you to register with the Electronic Residency Application Service (ERAS). Check out the website at <https://www.aamc.org/students/medstudents/eras/>. ERAS is a service that transmits the MyERAS application and supporting documentation from applicants and their Designated Dean's Office to program directors. ERAS consists of MyERAS, Dean's Office Workstation (DWS), and Program Director's Workstation (PDWS). Laura Christopher, Assistant Director of Academic and Career Support Services, maintains the Dean's Office Workstation (DWS).

ERAS opens in April and you can begin working on your application. It can be viewed by program directors in September so you want to plan on September 1 as a deadline for completing your application. Completing your application does not mean you have to have your letters of recommendation in.

## National Resident Matching Program

As you proceed through your decision making process, it will be critical that you examine how competitive you are for your chosen specialty. One of the best ways to do this is to begin reviewing the 2016 Charting Outcomes for the Match which can be found on the National Resident Matching Program website at <http://www.nrmp.org/new-charting-outcomes-match/>. This document is a collaborative report developed by the AAMC and the NRMP which details the distribution of USMLE scores, number of programs ranked, membership in AOA, number of publications and participation in research projects and other evaluative criteria for matched and unmatched applicants .

In addition to ERAS, you must also register with the NRMP. The National Resident Matching Program (NRMP) is a private, not-for-profit corporation established in 1952 to provide a uniform date of appointment to positions in graduate medical education (GME) in the United States. There is a code of conduct to which you must adhere. You should review these as there are penalties for violating match rules. [http://www.nrmp.org/fellow/policies/map\\_institution.html#applicants](http://www.nrmp.org/fellow/policies/map_institution.html#applicants). Keep in mind that “The



listing of an applicant by a program on its certified rank order list or of a program by an applicant on the applicant's certified rank order list establishes a binding commitment to offer or to accept an appointment if a match results and to start training in good faith (i.e., with the intent to complete the program) on the date specified in the appointment contract.” In other words, do not rank programs to which you are really unwilling to go.

The NRMP matching algorithm uses the preferences expressed in the rank order lists submitted by applicants and programs to place individuals into positions. The process begins with an attempt to place an applicant into the program indicated as most preferred on that applicant's list. If the applicant cannot be matched to this first choice program, an attempt is then made to place the applicant into the second choice program, and so on, until the applicant obtains a tentative match, or all the applicant's choices have been exhausted. ROLs are submitted by applicants and programs in mid-February. If you want to learn more about the matching algorithm, see [http://www.nrmp.org/res\\_match/about\\_res/algorithms.html](http://www.nrmp.org/res_match/about_res/algorithms.html).

### **Urology and ENT Match**

If you are considering matching in these programs, it is imperative that you schedule a meeting with the Office of Student Affairs to discuss the timelines.

### **Plastic Surgery or Ophthalmology Match**

If you are considering plastic surgery or ophthalmology, you will need to register with the San Francisco Match. <http://www.sfmatch.org/> This match has different timelines and deadlines so review it carefully. You still need to register with the NRMP.

### **Military Match**

If you are going through the Military Match, you will need to speak with your recruiter for further information. Timelines and deadlines are different than the main match. You still need to register with the NRMP.

### **Couples Match**

If you are going through the match as a couple, you will use the Couples Match through the NRMP. Each partner of a couple enrolls individually in The Match and indicates in the NRMP's secure, web-based Registration, Ranking, and ResultsSM (R3SM) system that they want to participate in The Match as a couple. The NRMP allows couples to form pairs of choices on their primary rank order lists, which then are considered in rank order in The Match. The couple will match to the most preferred pair of programs on the rank order lists where each partner has been offered a position. Couples can be matched into a combination of programs suited to their personal needs. In creating pairs of programs, couples can mix specialties, program types (preliminary or transitional, categorical, and advanced), and geographic locations. For more information, see [http://www.nrmp.org/res\\_match/special\\_part/ind\\_app/couples.html](http://www.nrmp.org/res_match/special_part/ind_app/couples.html)

### **Letters of Recommendation**

From the Careers in Medicine website (with modifications), consider the following in asking for Letters of Recommendation: Letters should generally come from faculty who know you well, have worked with you in a clinical setting and are in the specialty you wish to pursue. You want letters from the faculty that know you best and can describe your clinical abilities as well as your personal attributes, such as being a team player or having good problem solving skills. You should get at least one letter, and probably two from a person in your chosen specialty. You may also need to get a letter from the department chair and/or clerkship director. Make sure you set up a face-to-face meeting so you can make a good impression and supply the necessary information they may need. Generally you should not

solicit letters from residents, preclinical faculty and non-physicians. You should discuss your letter writing selections with your advisor or students affairs dean so they can help you decide who may be best to ask in your particular field or situation. See additional details on the LoR in a subsequent section.

### Medical Student Performance Evaluation (MSPE or Dean's Letter)

The Medical Student Performance Evaluation (MSPE) is a performance evaluation (formerly known as the Dean's Letter) that describes in a sequential manner, a student's performance, as compared to his or her peers, through years 1-3 of your medical education. It includes an assessment of both your performance and professional attributes. This letter is prepared by the Office of Medical Education with a deadline of October 1. If you would like to read more about the MSPE, please refer to <https://www.aamc.org/download/139542/data/mspe.pdf>.

### Personal Statement

One of the more difficult aspects of the application for many medical students is writing the Personal Statement (PS), particularly if you are not comfortable with your writing skills. The CiM website is a good place to go for information on what to include in your PS and it is excerpted in a subsequent section below. Amy Smith will review your PS but you will want to have others review it as well. You will want to start writing your PS in July so that you will have time to go through revisions and have it ready to submit to your ERAS application by September 1. Some specialties and programs value the PS more than others but, since you do not know which ones will value it most, do your best. See separate section at the end of this document.

### How will I know if I have matched to a program?

At 12:00 noon eastern time on Monday of Match Week, applicants can learn IF they matched to a program on their rank order list by logging in to the NRMP's Registration, Ranking, and Results (R3) system with their AAMC ID and password. Applicants will be presented with one of the following messages on the Applicant Options page:

#### **Congratulations, you have matched!**

This message will be displayed for any applicant who is "fully" matched, including:

- Applicants who listed and matched to a categorical program.
- Applicants who listed and matched to preliminary and advanced programs.

#### **Congratulations, you have matched to an advanced position but not a first year position!**

This message will be displayed for any applicant who matched to an advanced position but did not match to a preliminary position listed on a supplemental rank order list. Applicants who receive this message and who are deemed eligible to enter graduate medical education on July 1 in the year of The Match will have access to the List of Unfilled Programs and will be eligible to participate in the Match Week **Supplemental Offer and Acceptance Program** obtain a preliminary position. Applicants will not have access to information about unfilled categorical or advanced positions.

#### **Congratulations, you have matched to a one year position!**

This message will be displayed for any applicant who matched to a preliminary position but did not match to an advanced position listed on the primary rank order list. Applicants who receive this message and who are deemed eligible to enter graduate medical education on July 1 in the year of The Match will have access to the List of Unfilled Programs and will be eligible to participate in the Match Week Supplemental Offer and Acceptance Program to obtain an advanced position. Applicants will not have access to information about unfilled categorical or preliminary positions.

#### **We are sorry; you did not match to any position!**

This message will be displayed for any applicant who did not match to any program. Applicants who receive this message and who are deemed eligible to enter graduate medical education on July 1 in the year of The Match will have access to the List of Unfilled Programs and will be eligible to participate in the Match Week **Supplemental Offer and Acceptance Program** for any category of unfilled positions.

**You are NOT matched because you did not submit a certified rank order list!**

This message will be displayed for any applicant who registered to participate in the Match but did not certify a rank order list prior to the [rank order list certification deadline](#). Applicants who receive this message and who are deemed eligible to enter graduate medical education on July 1 in the year of The Match will have access to the List of Unfilled Programs and will be eligible to participate in the Match Week Supplemental Offer and Acceptance Program for any category of unfilled positions. **DO NOT LET THIS HAPPEN TO YOU.**

**You are NOT matched because you are withdrawn!**

This message will be displayed for any applicant who registered to participate in The Match but was withdrawn either by the medical school or by the NRMP.

**What happens if I do not match?**

**First thing is to contact Amy Smith immediately at 304-638-0943. Arrangements have been made to meet with a career advisor upon this condition. Most likely those advisors will be Laura Christopher, Amy Smith and/or Dr. Bobby Miller. We will walk you through the next 3 days of activities.**

This is dreadful to think about but it is important information for you to know. **SOAP** is the process through which positions offered by unfilled programs are accepted by unmatched applicants during Match Week. **SOAP** replaces the "Scramble" and provides a standardized and uniform process for obtaining post-match appointments. Unfilled programs electing to participate in **SOAP** offer positions to **SOAP**-eligible unmatched applicants through the **Registration, Ranking, and Results (R3) system**, and positions offered and accepted constitute a binding commitment under the Match Participation Agreement.

**SOAP** is a series of "rounds" that begin at 12:00 noon eastern time on Wednesday of Match Week. At 12:00 noon, the first SOAP offers are extended through the **R3** system to the unmatched applicants listed at the top of programs' preference lists. Offers are extended to as many applicants on a program's preference list as there are unfilled positions in that program. Each "round" of **SOAP** lasts two hours, during which applicants can accept or reject any offers they receive. Offers are sent at 3:00 p.m. Wednesday, 9:00 a.m., 12:00 p.m., and 3:00 p.m. on Thursday. **SOAP** concludes at 5:00 p.m. eastern time on Thursday of Match Week. Detailed information about SOAP can be found in Section 7.0 of the Match Participation Agreement for Applicants and Programs.

# Letters of Recommendation (LoR)

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## How many letters do I need?

The program will specify the number of letters you need. Most programs will ask for three or four letters. ERAS allows you to store as many letters of recommendation as you wish and designate different letters for each program, but no more than four letters can be sent to an individual program.

## How do I ask for letters?

Anticipate who you will ask for letters, get to know them and let them get to know you beforehand. Strategize who your strongest advocates will be. You may be surprised at how willing faculty members are to write letters of recommendation. Keep in mind that they have probably been doing this for quite some time and it is part of their job to perform this important function. Request a letter of recommendation directly and in person. Ask if the faculty member would feel comfortable writing you a strong letter of support. This gives the potential letter writer an easy out if they are not comfortable and keeps you from getting a negative or neutral letter that will do little to help your candidacy. If the answer is anything other than a strong affirmative, you should probably look elsewhere. If they agree, follow-up with an email confirming so they will remember.

## When should I ask?

Plan to give your letter-writer at least four weeks notice for a letter. Provide a copy of your CV and personal statement. ERAS has a letter request form/cover sheet that you can use to assist your letter-writer with format and submission. Make sure you keep track of those whom you've asked and follow up to make sure your letters are being submitted. It's important that you stay in communication with your Student Affairs since they will be assisting you in collecting and submitting your letters of recommendation and other supporting documents.

Note that some faculty members write a large number of letters so I recommend that if you know you will be asking for a letter, give them a “heads up” around June that you will be asking. Then when you have your CV and PS complete (or at least your CV), make an appointment to meet with them in order to officially ask for a letter. There is a waiver form that you will have to provide them that waives your right to see the letter. If someone offers to write you a letter, say that you would be honored if they did so. You don't have to necessarily use it but if they offer, they must have good things to say.

Remember that letters do not have to be in when you submit your application. They will generally come in from August – October. Effective ERAS 2016, all letters of recommendation must be uploaded by your author or their designee using the LoR Portal. Medical schools will no longer be able to upload letters on your behalf. Keep in mind that letters are uploaded when they come in but sit there until you assign them to programs.

# Your Personal Statement (PS)

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The personal statement can be difficult to write and a source of much frustration for students, but it is a useful tool to give the selection committee some idea of your background, goals and character. Think of this as an opportunity to highlight your strong points. A good personal statement should focus on your medical career objectives- your specialty choice and aspirations. It should not be a rehash of why you came to medical school (like you wrote for AMCAS) or a summary of your CV, but rather a succinct statement of your career goals that reflects your personality and style. Examples of personal statements are available on the Student Affairs website <http://jcesom.marshall.edu/students/student-affairs/> under the Career Advising and Counseling Program on the left navigation tab.

Your personal statement should include:

- An explanation of why you want to go into your chosen specialty and the characteristics or points that attracted you. If there is a particular event that led to your interest, describe it.
- Clinical activities, research or special projects that solidified your interest. You want the reader to see your commitment to the specialty and the profession.
- Your personal characteristics that make you well suited for the specialty, and the strengths you can offer the program. Your self-assessment results may be helpful to you in describing the attributes that you bring to the program and specialty.
- What you are looking for in a program, clinically and academically (making sure you are sending it to programs that can meet those needs).
- Your future plans and goals within the specialty.

There may be situations where a unique personal statement focused on a single residency program may be in order (ex: if you have done a sub-internship at your first choice location or did research as an undergraduate with a faculty member at a particular program). With your advisor, think about strategy given your credentials and the places you want to apply. Your personal statement should be succinct, yet provide the reader with an overview of who you are and where you are headed.

## Tips for writing your personal statement:

- Keep it to one page, neatly typed with proper grammar and composition
- Avoid abbreviations
- Avoid repetitive sentence structure
- Get help - have your advisor and student affairs dean read it over
- Give yourself adequate time to prepare a well-written statement
- Read it aloud or have someone read it aloud to you to make sure it flows and makes sense
- Be error-free - proof your work for grammar, spelling, and typographical errors

Remember that in the early part of the residency selection process, the personal statement is the closest thing your reviewers have to knowing you personally.

# Clinical Rotation Evaluation

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In addition to beginning your practice of clinical medicine and learning the basics of being a physician, clinical rotations are a great chance for you to try on different specialties and start figuring out which one might be a good fit for you. As you complete each of your rotations, fill out and compare the evaluation questions below from the AAMC Careers in Medicine to assist you in gathering your thoughts, feelings, and reflections on each specialty as a possible career choice for you.

1) Name and Location of Clinical Rotation:

\_\_\_\_\_

2) What did I like most about this specialty?

\_\_\_\_\_  
\_\_\_\_\_.

3) What did I like least about this specialty?

\_\_\_\_\_  
\_\_\_\_\_.

4) Did this clinical rotation give me a good sense of what practice in this specialty would be like?

Yes    No

Comments: \_\_\_\_\_

\_\_\_\_\_.

5) Did my interests, values, skills, and/or personality “fit” with this specialty? If yes, in what way did they “fit?” If no, why might they not be compatible?

\_\_\_\_\_  
\_\_\_\_\_

6) What are the possible practice settings for specialists in this field? Which of these settings interest me and do I know enough about them?

\_\_\_\_\_  
\_\_\_\_\_

# SECTION III - Financial Aid

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# Financial Planning for 4<sup>th</sup> Year

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Financially planning for your fourth year of medical school should begin early spring during your third year. Application fees, away rotation and interview travel expenses can create unexpected financial hardships if funds are not budgeted appropriately. Unfortunately, residency interview expenses are not covered by federal student loans. If you feel you do not have the funds for travel-related costs, then it is important to explore alternative funding options.

You should consider the following steps and resources when planning:

- **Review Free Resources**
  - Research and review the free financial planning resources available to you so you are well informed when making financial decisions. The Association of American Medical Colleges (AAMC) FIRST program website at [www.aamc.org/first](http://www.aamc.org/first) provides a site specifically designed for 4<sup>th</sup> year students and residency related expenses. You will find estimated costs for the residency application process and tips on cutting costs for travel. You might want to also check [www.SmartMedTravel.com](http://www.SmartMedTravel.com) for additional tips. This site was developed by medical school graduates on travel tips during interviews.
- **Access the Marshall University School of Medicine (MUSOM) Office of Student Financial Assistance (OSFA) website** at <http://jcesom.marshall.edu/students/financial-assistance/> for federal aid budgets and other related information.
- **Review Your Budget**
  - Review your personal budget and determine any additional amount of resources that might be available for savings. If you are a student loan borrower, carefully review your financial aid budget, compare it to your personal budget, and determine areas where you could adjust spending. Financial aid budgets for your MS4 year should be available at the Marshall School of Medicine OSFA website by early March. However, you can review the current year's MS-4 financial aid budget for an estimate for the upcoming year. Enclosed you will find a copy of the current budgets, and they are also available at the OSFA website. Keep in mind your MS3 financial aid budget is based on a 12 month enrollment and your MS4 budget on a 10 month enrollment period. Thus, your total aid for MS3 offers a greater dollar amount than your MS4 budget. 4<sup>th</sup> year students and residency related expenses. Review the MS4 budget carefully and plan accordingly. Please notice that your Step 2 CS and CK registration expenses are allocated in your MS3 budget.
- **If you typically borrow the maximum amount of financial aid offered each year**, it is very likely you will need to seek an alternative option to cover residency interview or relocation expenses, 4<sup>th</sup> year students and residency related expenses. However, you will see a limited amount of funds available to assist in travel for away rotations and at least \$100 for assistance with your residency application. A budget appeal can be submitted for additional assistance for your application fees. Please see the first option below regarding budget appeals.



Possible options to assist with funding these expenses are:

- Check your financial aid award for the MS3 year to see if you have any remaining eligibility for the current year, and if so, contact the OSFA to discuss your options of borrowing funds now for next year.
- Review the financial aid Budget Appeal and discuss possible additional eligibility for federal funds with the Office of Student Financial Assistance. Details on submitting a budget appeal are available on the OSFA website. If you haven't appealed your expenses for possible additional dollars for the current MS3 year, you might want to consider submitting one now and then again for the MS4 year. 4<sup>th</sup> year students and residency related expenses.
- Consider seeking a private residency and relocation student loan. These loans are specifically designed for the medical student and are not certified by the school for determination of eligibility. So, it is important that you specifically seek out those loans indicating "Residency and/or Relocation" within the title. Other general private student loans require certification by the school based on the federal aid budget and you would eventually be denied.
  - You might want to check out your federal student loan servicer for possible residency and relocation loan options.
  - Or, review the FinAid.org website for a list of creditable available private student loan options at [www.finaid.org/loans/privatestudentloans.phtml](http://www.finaid.org/loans/privatestudentloans.phtml). This site provides a comprehensive list of all private student loans so be sure to seek out only the Residency/Relocation loans. Please contact the lender directly for details regarding the eligibility requirements and timeframe of application. According to Marshall University Code of Conduct for Private Education Loans, the OSFA cannot recommend a specific loan program.
- If you are uncertain whether to borrow from the federal student loan programs or the private student loan programs, please review AAMC First website, Federal vs. Private Educational Loans, at <https://students-residents.aamc.org/financial-aid/article/federal-vs-private-education-loans/>
- If you feel you need assistance and have never borrowed from the federal student aid loan programs, please see the MUSOM Office of Student Financial Assistance for more information about the federal student aid process.

### Exit Interview Requirement for Federal and State Student Loan Borrowers

It is required by the US Department of Education (USDOE) and WV Higher Education Policy Commission (HEPC) that students with federal and state student loan debt who are no longer enrolled or enrolled less than half-time participate in a senior loan exit interview. You will be notified of your exit options by the OSFA at the end of your MS4 fall semester. As an option, a group session exit interview will be scheduled early in the spring semester of your MS4 year.

For more information on MS4 financial aid options

Contact Cindy Canterberry in the MUSOM Office of Student Assistance at the Byrd Clinical Center, Suite 1017, 1249 15th Street, Huntington, WV 25701. Email: [madden2@marshall.edu](mailto:madden2@marshall.edu); Phone: 304-691-8739; Website: <http://jcesom.marshall.edu/students/financial-assistance/>.

# Financial Aid Budgets 2017-2018

MS1 (10-month Enrollment)	2017-2018	
	Resident	Non-Resident
Tuition & Fees	\$22,154	\$52,542
Books & Supplies	750	750
Computer & IT	2,000	2,000
USMLE	0	0
Clinical Travel	0	0
Living Expenses** (Housing, Utilities, Meals)	14,560	14,560
Transportation** (Fuel, Service, Insurance)	2,500	2,500
Personal** & Miscellaneous Expenses	2,295	2,295
Health Insurance *	3,938	3,938
Unsub Loan Fees	357	357
Graduate Plus Fees	670	670
<b>Total</b>	<b>\$49,224</b>	<b>\$79,612</b>

MS2 (10-month Enrollment)	2017-2018	
	Resident	Non-Resident
Tuition & Fees	\$22,154	\$52,542
Books & Supplies	750	750
Computer & IT	500	500
USMLE (Step 1 Registration @ \$580; Study Materials @ \$400; Travel @ \$100)	1,080	1,080
Clinical Travel	0	0
Living Expenses** (Housing, Utilities, Meals)	14,560	14,560
Transportation** (Fuel, Service, Insurance)	2,500	2,500
Personal** & Miscellaneous Expenses	2,050	2,050
Health Insurance *	2,729	2,729
Unsub Loan Fees	357	357
Graduate Plus Fees	670	670
<b>Total</b>	<b>\$48,559</b>	<b>\$78,947</b>

\*\*Avg Monthly Living

10 Months	\$1,935	\$1,935
12 Months	\$1,613	\$1,613

\*\*Avg Monthly Living

10 Months	\$1,911	\$1,911
12 Months	\$1,592	\$1,592

\*Health Insurance is subject to change. If your health insurance premium is waived based on parent or other plan, then the amount will be removed from the total student budget.

<b>MS3 (12-month Enrollment)</b>	2017-2018	
	Resident	Non-Resident
Tuition & Fees	\$22,154	\$52,542
Books & Supplies	750	750
Computer & IT	500	500
USMLE (Step 2-CK Registration, Study Materials, Travel Expenses; Step 2- CS Registration)	2,310	2,310
Clinical Travel	1000	1000
Living Expenses ** (Housing, Utilities, Meals)	17,472	17,472
Transportation** (Fuel, Service, Insurance)	3,000	3,000
Personal** & Miscellaneous Expenses	3,650	3,650
Health Insurance *	3,938	3,938
Unsub Loan Fees	357	357
Graduate Plus Fees	670	670
<b>Total</b>	<b>\$55,801</b>	<b>\$86,189</b>

<b>MS4 (10-month Enrollment)</b>	2017-2018	
	Resident	Non-Resident
Tuition & Fees	\$22,154	\$52,542
Books & Supplies	750	750
Computer & IT	500	500
USMLE (Step 2 CS Travel)	1,000	1,000
Clinical Travel	2,000	2,000
Living Expenses ** (Housing, Utilities, Meals)	14,560	14,560
Transportation** (Fuel, Service, Insurance)	2,500	2,500
Personal** & Miscellaneous Expenses	3,150	3,150
Health Insurance *	3,938	3,938
Unsub Loan Fees	357	357
Graduate Plus Fees	670	670
<b>Total</b>	<b>\$51,579</b>	<b>\$81,967</b>

\*\*Avg Monthly Living

12 Months                      \$2,010                      \$2,010

\*\*Avg Monthly Living

10 Months                      \$2,021                      \$2,021  
12 Months                      \$1,684                      \$1,684

\*Health Insurance is subject to change. Information will be announced by the MUSOM Office of Student Affairs. If your health insurance premium is waived based on parent or other plan, then the amount will be removed from the total student budget.

## Appendix I – Course Catalog

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## Required Fourth Year Courses

All fourth year medical students are required to complete the following courses:

- 2 weeks of Emergency Medicine EMS 744
- 4 weeks of Sub Internship (Choice of courses below)
- 2 weeks of ICU Critical Care Selective (Choice of Courses below)

### Emergency Medicine

#### **EMS 744 - Emergency Medicine**

**Course Coordinator: Glenna Michael**

**Course length: 2 Weeks**

This course is a required two week experience for all Fourth Year Students and must be successfully completed prior to graduation. Students are expected to complete a minimum of 40 hours per week in the Cabell Huntington Emergency Department. Students will evaluate patients and formulate effective testing and treatment strategies. Active participation in patient care and procedural skills is required. Students will be assigned to see patients under the direct supervision of faculty preceptors. Scheduling of the students' shifts is to be at the convenience of the preceptors who work with the students. Midnight and weekend shifts are required.

### Sub Internship Selective Options

#### **FCH 827 - Sub-internship in Family Medicine**

**Course Coordinator: Glenna Michael (michael@marshall.edu)**

**Course length: 4 Weeks**

Students will perform at the level of an acting intern on the busy and lively family practice inpatient team. Patients followed by the family practice hospital service include newborn infants, children, adults, and critical care patients (ICU/CCU) in a 350-bed hospital. The sub-intern will perform admission histories and physicals on hospitalized patients and then function as the patients' primary physician during the hospitalization under the close supervision of the chief residents and attending. The sub-intern will present his or her patients daily at a resident-directed, dynamic morning rounds. He or she assumes responsibility for ordering and interpreting laboratory data, choosing suitable treatments and communicating with patients and their families. Students are expected to follow a minimum of 2 patients daily while on the service. Attendance at weekly Family Practice Grand Rounds is required (90 minutes every Thursday afternoon, lunch is provided). Night call will be assigned to average every fourth to fifth night.

#### **MED 827 - Sub-internship in Medicine**

**Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)**

**Course length: 4 Weeks**

This Selective Medicine Course is a 4 week course that is organized as a sub-internship to provide senior students with a structured clinical internal medicine experience. Students assume the responsibilities of being an integral team member of an inpatient medical service and as such improve and build upon cognitive and technical clinical skills attained during the third year clerkship. This course is offered at the Huntington VA Medical Center only.

#### **OBG 827 - Sub-internship in Obstetrics**

**Course Coordinator: Rebecca Blake (mooney17@marshall.edu)**

**Course length: 4 Weeks**

Students will Learn the principles of antepartum care with specific attention to routine prenatal care and screening; Identify, evaluate, and manage at risk pregnancies; Develop the tools to evaluate and manage pregnant patients in the emergency room (triage) setting; Learn the principles of

management of labor including vaginal delivery; Understand the indications for and techniques of labor induction; Understand the principles of postpartum care with specific emphasis on breast feeding and contraception. Students will be provide prenatal care to low and at risk pregnancies. Students will learn principles of evaluation and management of normal and abnormal labor; Students will learn principles of vaginal and abdominal obstetrical deliveries. Students will evaluate and manage ambulatory antepartum patients in both the office and hospital setting. Students will continue mastery of physiologic and anatomic changes of pregnancy

### **ORT 827 - Sub-Internship In Orthopaedic**

**Course Coordinator: Ashley Taliaferro (Roach33@marshall.edu)**

**Course length: 4 Weeks**

A 4th year sub-internship in orthopaedic surgery is offered, providing experience in office and hospital management of diseases of the musculoskeletal system. Preference is given to those considering matching in orthopaedic surgery. Visiting Medical Students are allowed enrollment, but preference will be given to Marshall students. For those looking for an outpatient musculoskeletal experience only, please consider ORT 808

### **PED 827 - Sub-Internship Pediatrics**

**Course Coordinator: Lisa Watts (lwatts@marshall.edu)**

**Course length: 4 Weeks**

This elective is available to only one or two students at a time. The student will function as a member of the house staff team observing and participating in the delivery of care of the pediatric hospital patient from the initial admission with the attending and resident. The complete evaluation of the patient, the planning of the clinical appraisal and care will be under the management of the student. All procedures, laboratory follow-through and therapeutic management of the patient will be coordinated with the pediatric resident to whom the student is assigned. Location of this elective is the Inpatient Pediatric Floor at Cabell Huntington Hospital (5th floor)

### **PSI 827 - Psychiatry Sub-internship**

**Course Coordinator: Missy Morrison (clagg11@marshall.edu)**

**Course length: 4 Weeks**

The course will prepare students to provide comprehensive and evidence-based inpatient care for adult psychiatric patients. These duties will include: initial psychiatric assessments, physical examinations, development of treatment plans, medication management and monitoring, behavioral interventions, psychosocial treatment modalities, leading treatment team discussions and coordination of patient care with input of case management and other healthcare professionals, coordinating care with therapists, psychologists, and nursing staff, evaluating patient safety, and developing appropriate discharge plans, including follow-up care and safety plans or contracts.

### **SUR 827 - Sub-I in Surgery**

**Course Coordinator: Lisa Blizzard (clagg@marshall.edu)**

**Course length: 4 Weeks**

The surgical sub-internship (Sub-I) is a focused month designed to have students directly participate in the care of surgical patients; that is, initial evaluation, formulation of differential diagnoses, establishment of treatment plans and eventual daily care of the patient. It is important to emphasize that the student should function at the PGY-1 level with close supervision from the resident and attending surgical team. Students will actively participate on rounds, daily care tasks, procedures, and conferences. The Sub-I is a chance for the soon-to-be resident to gain and/or polish the clinical skills critical for entering residency. The student should actively participate in procedures, clinical decision-making, and patient interaction. Call responsibility will be addressed by the attending

surgeon and Chief Resident. This month is a chance to establish a preliminary comfort level in taking care of patients and is designed to simulate what it may be like as a PGY-1, with appropriate supervision. Although the patient population is primarily of a surgical nature, students will obtain a broad clinical exposure which will provide a solid experience for entrance into any type of residency program.

## ICU Selective Options

### **MED 833 - Critical Care in Medicine**

**Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)**

**Course length: 2 Weeks**

Description and Goals of course: The primary purpose of this elective is to provide the senior medical student with a diverse, well-rounded, meaningful, and focused exposure to the field of Critical Care Medicine. Students will have the opportunity to apply the basic physiology learned in their initial three years to the critically ill patient.

### **PED 805 – Neonatology**

**Course Coordinator: Lisa Watts (lwatts@marshall.edu)**

**Course length: 2 Weeks**

This selective is available to one or two students at a time. Additional weeks can be taken as an elective. The student will observe and participate in the management of the high risk newborn in the Neonatal Intensive Care Unit with neonatologists, nurse practitioners, and pediatric residents. Emphasis will be placed on recognizing and assessing the high risk newborn, instituting acute therapeutic emergency measures, requisitioning appropriate laboratory studies and therapy under direct supervision. Daily assessment of nutritional needs and growth and development of the high risk infants will be among the student's responsibilities. Reading and participation in selected diagnoses and/or management reports related to the patients in the unit is expected.

### **PED 807 - Pediatric Critical Care**

**Course Coordinator: Lisa Watts (lwatts@marshall.edu)**

**Course length: 2 Weeks**

This selective is available to only one student at a time. The student will observe and participate in the management of the critically ill pediatric patient. Emphasis will be placed on assessing and recognizing critically ill children and developing early intervention and daily treatment plans. The student will have primary responsibility for one or two patients on daily rounds. Reading and participation in selected diagnoses and/or management reports related to the patients in the unit is expected.

### **SUR 833 - Surgical Intensive Care Unit**

**Course Coordinator: Lisa Blizzard (clagg@marshall.edu)**

**Course length: 2 Weeks**

To gain experience with monitoring and evaluation of the critically ill surgical patient. To provide a broad exposure to fundamental concepts of critical care including ventilator management, hemodynamic monitoring, fluids and electrolytes, and nutritional support. To develop an understanding and basic skills in the assessment, initial resuscitation, management and recovery of post surgical intensive care patients from a wide variety of surgical disciplines including general, orthopedic, trauma, thoracic and urologic. To understand the indications for common surgical intensive care procedures.

## Fourth Year Elective Courses

All fourth year medical students are required to complete 28 weeks of elective courses. The students may choose which electives they wish to complete, but must adhere to the following schedule policies:

- Non-Patient Contact Electives are limited to 6 weeks with the following exception:
  - Students may with permission of the course director, may schedule up to 12 weeks of a basic science research elective. All remaining elective hours must be patient contact electives.
- Out of State Electives are limited to 16 weeks.
  - Students may only schedule 8 weeks consecutively, with prior approval from Office of the Registrar
- Electives must be designated as fourth year courses/electives
- All Electives must be a minimum of 2 weeks with the following exceptions:
  - CVS 800 Essentials of EKG

## ANATOMY

### ACB 813 - Surgical Anatomy (NON PATIENT CONTACT)

**Course Coordinator: Dr. Laura Richardson (richardson@marshall.edu)**

**Course length: 2-4 Weeks**

This elective focuses upon laboratory work and completion of dissections as determined by the course director. The course allows the student to review gross anatomy, from the perspective of surgery, with special emphasis on regions of particular interest to the student but might also include regions requested by the course director. The number of regions to be dissected depends on the number of weeks and the particular region(s) requested.

## BIOCHEMISTRY

### BIC 820 - Biochemistry Research (NON PATIENT CONTACT))

**Course Coordinator: Anita Mathis (mathis@marshall.edu)**

**Course length: 2 - 4 Weeks**

Additional weeks may be added upon advance written approval by the Course Director AND the Office of Medical Education. This elective course will provide an opportunity for medical students to become familiar with the tools and techniques used in modern biochemical research. Prior to the beginning of the course, interested students will meet with departmental faculty and select a faculty member who will serve as the course mentor. A research problem appropriate for the length of the course will be selected by joint agreement between the faculty mentor and the student. The student will conduct laboratory experiments, gather and interpret data, read the current literature, and write a paper on the research. Research topics may include, but are not limited to, (1) hormone responsiveness in human breast cancer, (2) control of tumor cell growth and differentiation, (3)  $\beta$ -catenin as a molecular target in cancer, (4) molecular therapeutics for cancer, (5) cellular and whole animal models of nutrition and cancer, and (6) Chmp1/Sap7 as a p53-mediated tumor suppressor in pancreas.

## CARDIOLOGY

### CVS 800 - Essentials of EKG

**Course Coordinator: Cindy Daily (daileyc@marshall.edu)**

**Course length: 1 Week**

SPACE IS VERY LIMITED

Essentials of Cardiology is a fast paced course that will expose fourth year medical students to the common dilemmas in ECG interpretation. The ECG elective is designed to teach advanced interpretation of the electrocardiogram, with a specific emphasis on cardiac arrhythmia. Medical



students are expected to come in with a basic understanding of the principles of electrocardiography. Dr. Wehner tailors her curriculum to meet the individual student's needs for residency.

### **CVS 801, Cardiovascular Medicine**

**Course Coordinator: Nancy Floyd (nfloyd@marshall.edu)**

**Course length: 4 Weeks**

Cardiovascular Medicine is an integral core component of training to be a physician. Many cardiovascular disease processes are prevalent with the potential to be life threatening. Recognition, triage, and appropriate therapy are vital to the internist, regardless of specialty. During this elective, the student will have exposure to the majority of cardiovascular cases, presentations, management and procedures. This will include exposure and education in: EKG interpretations, stress testing, echocardiography and invasive procedures such as cardiac catheterization and pacemaker placement.

## **DERMATOLOGY**

### **MED 803 - Clinical Dermatology**

**Course Coordinator: Rachel Amsbury (amsbury6@marshall.edu)**

**Course length: 2 - 4 Weeks**

This elective is designed for students interested in learning a comprehensive integrated structured dermatology database. It will develop the ability to examine a core curriculum of skin diseases, understand the methods of differential diagnosis and techniques for skin testing, and formulate a diagnostic and therapeutic plan of treatment.

## **EMERGENCY MEDICINE**

### **EMS 710 - Emergency Medicine**

**Course Coordinator: Glenna Michael (michael@marshall.edu)**

**Course length: 2- 4 Weeks**

This elective will expose medical students to the evaluation of patients and formulation of effective testing and treatment strategies. Active participation in patient care and procedural skills is required. Students will be assigned to see patients under the direct supervision of faculty preceptors. Scheduling of the students' shifts is to be at the convenience of the preceptors who work with the students. Midnight and weekend shifts are required.

### **EMS 868 – Out of State Emergency Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Emergency Medicine.

## **FAMILY MEDICINE**

### **FCH 780 - Special Topics in Family Medicine**

**Course Coordinator: Glenna Michael (michael@marshall.edu)**

**Course Length: 2 – 4 Weeks**

**Prior approval for registration must be granted by the Associate Chairman for Medical Education.**

The number of credit weeks will be determined in part by the planned activities and study proposal submitted by the student. The course location is the Marshall University Family Medicine Center. The student assumes the responsibilities of determining the content and organization of this course. The student must be an independent learner and able to function under limited supervision. This

course was created to permit the student to create a family medicine special topic study experience to meet individual study and/or career interest needs

### **FCH 800 - Outpatient Family Medicine**

**Course Coordinator: Glenna Michael (michael@marshall.edu)**

**Course length: 2 – 4 Weeks**

Since electives will be available at a variety of family medicine sites, including community health centers as well as private family practitioners' offices, experiences will vary with the location. Students will be assigned to sites based upon student interest and site availability. Students will work under the direct supervision of clinical faculty and residents. They will obtain appropriate histories and complete indicated physical exams, develop a working assessment and initiate management of patients of all ages with acute and chronic illnesses. Students will participate in health promotion and disease prevention needs of presenting patients. Proper documentation of all patient encounters will be completed by students where appropriate.

### **FCH 806 - Local Health Department Clerkship**

**Course Coordinator: Glenna Michael (michael@marshall.edu)**

**Course length: 2 Weeks**

This course will introduce the Senior Medical student to the local health department and the public health issues confronting the agency. The student will participate in disease investigation and contact tracing as it happens in the community. The student will also accompany sanitarians during restaurant, school, daycare, or nursing home inspections and participate in immunization clinic, family planning, STD, and TB clinics.

### **FCH 820 - Rehabilitative Medicine**

**Course Coordinator: Glenna Michael (michael@marshall.edu)**

**Course length: 2 Weeks**

This course will introduce the Senior Medical student to chronic and acute disability conditions. Students will observe patients in rehabilitation therapy and observe physiatrist in rounds, clinics and brace-prosthetics. Students will also participate in team conferences, lectures, and literature review.

### **FCH 845 - Sport Medicine and Adult Fitness**

**Course Coordinator: Glenna Michael (michael@marshall.edu)**

**Course length: 2 Weeks**

**Arranged during specified times within the first half of the fourth year late August through the end of November.**

Activity in sports blossoms in this area of West Virginia for two of the largest high schools in the state, several smaller rural high schools and Marshall University. Opportunities for pre-participation examinations, the assessment of acute injuries, and interactions with athletic training personnel, physical therapist, and orthopedists are increased during this time of year. The role of exercise in fitness and health is also explored with exercise physiologists and literature review.

### **FCH 850 - Rural Geriatrics**

**Course Coordinator: Glenna Michael (michael@marshall.edu)**

**Course length: 2 – 4 Weeks**

The student will have the opportunity to improve knowledge, skills, and experience in caring for rural elders. This course will involve clinical experiences in diverse environments such as rural long term care facilities, rural medical clinics and offices, patient's homes, and rural agencies on aging. There will be a didactic component of directed readings and discussion with faculty.

**FCH 855 - Readings in Rural Health (NON PATIENT CONTACT)****Course Coordinator: Glenna Michael (michael@marshall.edu)****Course length: 2 Weeks**

This course will provide an in-depth examination of an issue related to providing health care in rural communities.

**FCH 857 - Readings in International Health (NON PATIENT CONTACT)****Course Coordinator: Glenna Michael (michael@marshall.edu)****Course length: 2 Weeks**

This course will provide an in-depth examination of an issue related to providing health care in the international setting.

**FCH 868 – Out of State Family Medicine Externship****Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)****Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Family Medicine.

**FCH 880 - International Health****Course Coordinator: Glenna Michael (michael@marshall.edu)****Course length: 4-12 Weeks**

This elective will provide an opportunity for students with an interest in tropical medicine, parasitology, infectious disease, or public health to take part in clinical, field, or research activities. Numerous opportunities for study overseas are available. This international elective recognizes that primary care is not bound by hospital walls or national borders. Instead, it is a universal process of prevention, diagnosis, and treatment. The international elective allows the student to see the universal process of prevention, diagnosis, and treatment outside the context of our culture: often problems and solutions stand out much more clearly when viewed against an unfamiliar backdrop.

**FCH 885 - Medical Spanish (NON PATIENT CONTACT)****Course Coordinator: Glenna Michael (michael@marshall.edu)****Course length: 2 Weeks**

Medical Spanish is designed as an independent learning course to develop a student's competence in interviewing, taking medical histories, examining, diagnosing, and treating Spanish-speaking patients. This course will offer elementary-level instruction in Spanish language and culture, all oriented to the practice of medicine with Spanish-speaking patients. Instruction focuses on basic grammar and vocabulary fundamentals, combined with medical terms, medically related phrasing and idioms, language for specific clinical situations (admissions, emergencies, etc.) and health-related cultural information. Students will be provided with opportunities to practice applying Spanish in mock medical settings. Cultural studies include readings, presentations by clinicians working with Spanish-speaking populations, case studies, and role-playing exercises. Focus will be on dialogues on taking patient medical history, history of medication, and family and social history. No prior knowledge of Spanish is required although the course will be tailored for those students with varying levels of fluency in Spanish.

**FCH 888 - Rural Family Medicine****Course Coordinator: Glenna Michael (michael@marshall.edu)****Course length: 2 – 4 Weeks**

Since electives will be available at a variety of rural sites, including community health centers as well as private family practitioners' offices, experiences will vary with the location. Students may be primarily involved in office-based patient care or may have a more varied experience combining outpatient care, emergency room evaluation of patients and inpatient care of hospitalized patients. Students will be assigned to sites based upon student interest and site availability. Students will work under the direct supervision of clinical faculty and residents. They will obtain appropriate histories and complete indicated physical exams, develop a working assessment and initiate management of patients of all ages with acute and chronic illnesses in a rural setting. Students will participate in health promotion and disease prevention needs of presenting patients. Proper documentation of all patient encounters will be completed by students where appropriate. Students will also be involved in a community service project as well. Requirement for night call varies with the site.

#### **FCH 890 - Wilderness Medicine**

**Course Coordinator: Glenna Michael (michael@marshall.edu)**

**Course length: 2 Weeks. Limit of 8 students per elective.**

**Dates offered are announced at the beginning of the academic year**

The course of study will focus on both trauma and illness found in a non-urban setting. This will not count as a rural elective.

#### **FCH 895 - Hospice and Palliative Medicine**

**Course Coordinator: Glenna Michael (michael@marshall.edu)**

**Course length: 2 – 4 Weeks**

The primary objective of this elective will be for a student to obtain hands-on, intensive and well-supervised experience in the management of end-of-life situations involving patients, family members and other health care providers.

### **INTERDEPARTMENTAL**

#### **IDM 801, Academic Medicine**

**Course Coordinator: Kelly Webster-Fuller (boyd@marshall.edu)**

**Course length: 2 weeks (30 hours)**

This elective allows the Senior Medical Student to be involved in teaching first and second year medical students in the clinical and basic science settings. **NOTE: Beginning with AY 2016 all students enrolled in Academic Medicine must complete hours in both semesters.**

### **INTERNAL MEDICINE**

#### **MED 780 - Elective Special Projects in Internal Medicine**

**Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)**

**Course length: 2 - 4 Weeks**

Special Topics is a graded 2-4 week course in which prior approval for registration must be granted by the Department of Internal Medicine. The number of credit weeks will be determined in part by the planned activities and study proposal submitted by the student. The student must be an independent learner and able to function under limited supervision.

#### **MED 802 - Cardiovascular Research (NON PATIENT CONTACT)**

**Course Coordinator: Nancy Floyd (nfloyd@marshall.edu)**

**Course length: 2 - 4 Weeks**

Student will plan a research project in conjunction with a research mentor member in the Cardiovascular department.

**MED 805 - Clinical Endocrinology and Metabolism****Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)****Course length: 2 - 4 Weeks**

This elective in Huntington provides an opportunity for medical students to develop their clinical skills and expertise in diabetes, thyroid disease and other endocrine diseases. The student will participate as a member of the team consisting of full-time faculty endocrinologists, the fellow in Endocrinology, the resident assigned on the Endocrinology Service, and the medical student on the elective. The medical student works closely with the faculty endocrinologist who will make patient rounds daily. The student attends outpatient endocrinology clinics two half-days a week for training in the management of endocrinology problems in ambulatory patients. A variety of educational conferences are scheduled including endocrinology clinical case conference, endocrinology lectures, and other meetings to which the student is invited. About forty percent of the student's time will be spent directly or indirectly in ambulatory care.

**MED 807 – Gastroenterology****Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)****Course length: 2- 4 Weeks**

This elective will introduce the student to clinical gastroenterology. The student will be integrated into a clinical rotation similar to that of the interns whereby he or she is responsible for the consultation history and physical examination of a hospitalized patient for whom the primary service has requested a GI consultation. The student will be expected to discuss the case with the fellow or faculty, review the scientific literature pertinent to the case, and finally present the case to the attending during rounds. The student will make daily rounds with the house staff and attending on all patients on the GI Service, will attend all of the GI-oriented conferences, and Grand Rounds and may be asked to participate in one during his or her period of time here. Students will be introduced to the procedural aspects of gastroenterology, including upper endoscopy and colonoscopy, and will have the opportunity to observe these in both his or her patients and others. There will be a strong interaction between the student and the other services that share in the management of gastroenterology patients, such as general and colorectal surgery, critical care, pathology, and radiology.

**MED 809-WV - Primary Care Internal Medicine****Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu) Course length: 2 - 4 Weeks**

This elective is used for students who wish to seek rotations in the state of West Virginia with a provider in Primary Care and Internal Medicine.

**MED 811 - Hematology/Medical-Oncology****Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)****Course length: 2 -4 weeks**

This elective provide the student with experience in the diagnosis and management of hematological and oncological problems both in the inpatient and outpatient clinic setting. These include anemia, coagulation disorders and hematological and solid neoplasms. Special instruction includes the focused physical examination techniques appropriate to blood disorders and neoplasia, bone marrow aspiration under supervision, the microscopic evaluation of peripheral blood and bone marrows, and treatment planning. For students electing a longer rotation, emphasis will be on continuity of care and modalities of support appropriate to on-going disorders.

**MED 812 - Research in Hematology (NON PATIENT CONTACT)****Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)****Course length: 2 - 4 Weeks**

Student will plan a research project in conjunction with a research mentor member in Hematology.

### **MED 813 - Infectious Disease**

**Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)**

**Course length: 2 Weeks**

Infectious diseases have plagued mankind since the beginning of time. In the 21st century, the morbidity and mortality attributable to infectious diseases continues to be a major threat to human health and well-being. Future physicians should have the knowledge and skills to diagnose and manage infections commonly encountered in their practice. In this rotation, fourth year students will acquire knowledge and skills in the evaluation and treatment of infected patients. Special emphasis will be placed in the development of a rational approach to antimicrobial use and infection prevention. Students will be exposed to outpatient infectious disease evaluation and management at the Byrd Clinical Center, participate in the Sexually Transmitted Diseases Clinic and Tuberculosis Clinic at the Cabell-Huntington Health Department and be involved in inpatient consults at Cabell-Huntington Hospital (CHH) and St. Mary's Medical Center (SMMC).

### **MED 817 - Clinical Nephrology**

**Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)**

**Course length: 2- 4 Weeks**

Renal disorders are common in general population. These problems are frequently seen as a complication of common diseases such as diabetes mellitus and hypertension which are prevalent in the community. In conjunction with intrinsic renal pathology, kidneys may be affected by numerous other diseases, as well as due to exposure to toxins and various medications. This elective offers students the opportunity to evaluate and manage patients with common renal problems, including acute and chronic renal failure, fluid and electrolyte abnormalities, hypertension, hemodialysis and transplantation. Students are assigned to an inpatient nephrology unit and round daily with the resident and nephrologist. It will be a mixture of inpatient consultation and outpatient experiences.

### **MED 821 – Pulmonary Medicine**

**Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is both an inpatient and outpatient experience. The senior medical student will work directly with different pulmonary attendings and fellows, attend 2-3 half-day clinics per week and attend the sleep clinic. The student will experience consultations on hospitalized patients and be involved in their evaluation, including any necessary pulmonary procedures. It is based at the Marshall University Medical Center, the VA Medical Center, Cabell Huntington Hospital, and St. Mary's Medical Center.

### **MED 823 - Clinical Rheumatology**

**Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)**

**Course length: 2 - 4 weeks**

Rheumatologic illnesses account for a significant proportion of morbidity in the general population. Physicians should possess the knowledge and skills to diagnose and manage basic rheumatologic conditions commonly encountered in a medical practice. During this rotation, fourth year medical students acquire the knowledge and skills to identify and manage these illnesses. Emphasis will be placed on recognition of various rheumatologic illnesses, appropriate diagnostic evaluation and testing, and development of effective treatment plans.

### **MED 826 - Hospital Medicine**

**Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)**

**Course length: 2 Weeks**

This elective for fourth year medical students provides a structured clinical experience in the field of Academic Hospital Medicine. It is designed to be a well supervised and personalized educational experience that will serve to improve and build upon those cognitive and technical clinical skills already attained during the junior medicine clerkship. Through this elective, the student will learn the clinical skills and attitudes essential to the practice of Academic Hospital Medicine and the delivery of the highest quality patient care. The attending will be responsible for assigning the student patients to follow from admission to discharge. The student will be expected to participate actively in patient care, including but not limited to writing admission orders, daily progress notes, obtaining consults and discharge planning. In addition to the patient care aspect, the student will be expected to identify and present on a topic in hospital medicine such as patient safety, quality improvement, risk management or the economics of hospital medicine. The student will also attend committee meetings and conferences as seen fit by the attending. Students are limited to only one 2wk rotation per academic year.

### **MED 828 - Advanced Clerkship in Med/Peds**

**Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)**

**Course length: 2- 4 Weeks**

This elective for fourth year medical students provides a structured clinical experience in the broad field of General Internal Medicine and Pediatrics. It is designed to be a well supervised educational experience that will serve to improve and build upon those cognitive and technical clinical skills already attained during the junior clerkships. Through this elective, the student will learn the clinical skills and attitudes essential to the practice of General Internal Medicine and Pediatrics. They will be expected to deliver of the highest quality patient care. The student will be encouraged to combine ambulatory and inpatient experiences in order to gain understanding of a typical Med/Peds practice, but will have an opportunity to concentrate solely in one aspect or the other as they prefer. They will likely rotate with several different faculty members in Internal Medicine and Pediatrics to gain the full experience.

### **MED 830 – Interdisciplinary Medicine**

**Course Coordinator: Brittani Ruiz (ruizb@marshall.edu)**

**Course length: 2 Weeks**

This 2 week elective will provide medical students with the opportunity to learn about the roles and responsibilities of a variety of non-physician health care providers. Students will shadow and spend time (8am – 5pm) working with a different type of provider each day of the elective.

### **MED 868 – Out of State Internal Medicine Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Internal Medicine.

### **MED 888 - Rural Medicine**

**Course Coordinator: Amber Vance (elkins34@marshall.edu)**

**Course length: 2 - 4 Weeks**

Introduction to primary care with particular focus on wellness, maintenance and disease prevention. The experience will demonstrate team health care provision, case management for functionality and quality. The experience will include community service such as participation in health fairs, health education projects in schools. Patient care will be examined in terms of continuity management and community support as opposed to anecdotal disease management.

## MICROBIOLOGY

### MCB 813 - Research in Microbiology (NON PATIENT CONTACT)

**Course length: 2 - 8 Weeks (8-12 weeks with permission of instructor)**

The goal of this elective course is to provide students with an opportunity to research a problem in medical microbiology under the mentorship of basic science faculty member in the Division of Microbiology and to learn methods of research in the field of microbiology. Interested students will meet with departmental faculty and select the faculty member who will serve as the course director. The research problem will be selected by joint agreement between the faculty mentor and the student and should be completed in the pre-determined length of the course. Development of suitable techniques, conduct of laboratory experiments, and interpretation of data will be required components of the course. Specific aims of the research must be stated prior to the start of the course and be approved by the course director, faculty mentor and the student. Specific aims should be consistent with the course length. In some cases, the faculty mentor may recommend that the student present findings at a conference such as MU Research Day. Students can elect to conduct basic science research in the following areas within the field of microbiology.

## NEUROLOGY

### NEU 803 – Neurosurgery

**Course Coordinator: Amanda Jones (cartmel1@marshall.edu)**

**Course length: 2 – 4 weeks**

This course is designed to give the senior medical student a basic understand of surgical diseases of the brain and spinal cord. The students will learn how to diagnosis common neurosurgical problems through the proper neurological history and examination, the interpretation of basic neurological diagnostic studies including, plain X-rays, CT scans, MRI-scans, and other commonly used diagnostic modalities. Students will attend rounds with staff physicians and all neurological and neurosurgical conferences. They will be encouraged to actively participate in all conferences including presentations and discussions. Students will be required to spend equal amounts of time in clinical, as well as, surgical settings. In the latter, they will be required to scrub in on all surgical procedures which they attend. Students will also be required to participate in the on call schedule and, in that context, to be active participants in neurosurgical consultations on the hospital floor as well as in the emergency ward.

#### **\*\*\*NEW OPTION\*\*\***

Dr. Magnus Ekedede from Princess Margaret Hospital and Doctor's Hospital located in the Bahamas, has agreed to allow MUSOM students to rotate for Neurosurgery. If the student elects to register for the Bahamas location, room accommodations will be provided. However, meals and travel will be at the expense of the medical student. **Please register for the NEU 803 course and put Bahamas in the location box.** For questions, please email [mekedede@hotmail.com](mailto:mekedede@hotmail.com) or [neurosurgicalinstitutebahamas@gmail.com](mailto:neurosurgicalinstitutebahamas@gmail.com)

### NEU805 - Neurology/Neurosurgery Research (NON PATIENT CONTACT)

**Course Coordinator: Amanda Jones (cartmel1@marshall.edu)**

**Course length: 2 - 6 Weeks**

Students will plan a research project in conjunction with a research mentor member in the neuroscience department; Take the lead role in submitting the project to the appropriate regulatory committee (IRB, IACUC); Carry out the research plan under supervision; Present data orally to the rest of the research team on a regular basis; Perform appropriate literature review to determine the current understanding of the problem; Write up the research results in a form suitable for publication; Attend and participate in the Department's grand rounds, journal club, EEG conference, epilepsy conference and other regularly scheduled conferences as the research schedule permits.



### **NEU 813 - Clinical Pediatric Neurology**

**Course Coordinator: Amanda Jones (cartmel1@marshall.edu)**

**Course length: 2 - 4 Weeks**

This course will expose the student to pediatric patients with various neurologic disorders. The student will learn how to examine patients ranging in age from neonates to teenagers and how to obtain a thorough history from patients and /or family members. Appropriate evaluation of the patient's condition will also be emphasized. The student will participate as an integral member of the neurology team. This involvement allows the students to: (1) build on their basic science and clerkship experience in terms of knowledge and physical examination skills; (2) expand their skills in ambulatory pediatric neurology, with an emphasis on neurological problems unique to the infant and child; (3) gain knowledge regarding newer treatment modalities and research in the field; (4) explore the option of pediatric neurology as a career choice; (5) learn more about sub specialization in pediatric neurology.

### **NEU 829 - Clinical Neurology**

**Course Coordinator: Amanda Jones (cartmel1@marshall.edu)**

**Course length: 2 - 4 Weeks**

This course will familiarize the student with the presentation and techniques of evaluation appropriate to patients with neurological disorders. The student will participate as an integral member of the neurology team. This involvement allows the students to: (1) build on their basic science and clerkship experience in terms of knowledge and physical examination skills; (2) expand their skills in ambulatory neurology, with an emphasis on neurological problems which they will encounter throughout their career, regardless of specialty; (3) gain knowledge regarding newer treatment modalities and research in the field; (4) explore the option of neurology as a career choice; (5) learn more about sub specialization in neurology.

### **NEU 868 – Out of State Neurology Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Neurology.

## **OBSTETRICS & GYNECOLOGY**

### **OBG 780 - Elective Special Projects in OB/GYN**

**Course Coordinator: Rebecca Blake (mooney17@marshall.edu)**

**Course length: 2 - 4 Weeks**

Special Topics is a graded 2-4 week course in which prior approval for registration must be granted by the Department of OB/GYN. The number of credit weeks will be determined in part by the planned activities and study proposal submitted by the student. The student must be an independent learner and able to function under limited supervision.

### **OBG 813, Gynecologic Surgery**

**Course Coordinator: Rebecca Blake (mooney17@marshall.edu)**

**Course length: 2 – 4 Weeks**

Student will be responsible for the pre and post operative management of patients undergoing surgical procedures for benign gynecologic diseases. Student will learn the evaluation, ambulatory management, and surgical options to treat female pelvic floor dysfunction. Students will be required

to demonstrate knowledge of the anatomy of the female pelvis. Students will be required to demonstrate basic laparoscopic skills

### **OBG 814 - Pediatric Gynecology**

**Course Coordinator: Rebecca Blake (mooney17@marshall.edu)**

**Course length: 2 – 4 Weeks**

Understand the principles of primary and preventative health care in the female pediatric and adolescent population. Learn the principles of antepartum care with specific attention to the adolescent age group. Describe mental health disorders as they relate to adolescents. Understand and provide counseling for adolescent females seeking contraceptive care. Describe the evaluation and management of pediatric/adolescent females with abnormal development of secondary sexual characteristics. Describe the evaluation and management of pediatric/adolescent females with pelvic pain. Describe the evaluation and management of pediatric/adolescent females with abnormal uterine bleeding. Understand how to educate adolescent females on sexuality.

### **OBG 820-WV – In State OB/GYN Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or rotation experiences in Obstetrics and Gynecology within the state of West Virginia.

### **OBG 835 - Maternal and Fetal Medicine**

**Course Coordinator: Rebecca Blake (mooney17@marshall.edu)**

**Course length: 2 - 4 Weeks**

To develop the basic tools to evaluate and manage at risk pregnancies with specific regard to: Prenatal diagnosis and imaging; Understanding of embryology and fetal growth and development; Understanding of genetics as related to prenatal diagnosis; Maternal hypertensive disorders; Diabetes complicating pregnancy; Inpatient and ambulatory management of at risk pregnancies; Maternal and Fetal Physiology, including anatomic adaptations to pregnancy.

### **OBG 850 - Gynecologic Oncology**

**Course Coordinator: Rebecca Blake (mooney17@marshall.edu)**

**Course length: 2- 4 Weeks**

**Dates and duration must be pre-approved by Course Director and Gynecologic Oncology Faculty**

This elective is for students who have completed the basic core clerkship in OB/GYN and who are interested in enhancing their exposure to the subspecialty of Gynecologic Oncology. Students will participate in the complete management of patients with precancerous and invasive lesions of the pelvic organs on inpatient and outpatient bases. Students will be an integral part of the service and will participate in all activities of the service, including attendance at departmental conferences, hospital rounds and outpatient clinics.

### **OBG 868 – Out of State OB/GYN Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Obstetrics and Gynecology.

### **OBG 888, Rural Obstetrics**

**Course Coordinator: Amber Vance (elkins34@marshall.edu)**

**Course length: 2 - 4 Weeks.**

Introduction to primary care with particular focus on wellness, maintenance and disease prevention. The experience will demonstrate team health care provision, case management for functionality and quality. The experience will include community service such as participation in health fairs, health education projects in schools. Patient care will be examined in terms of continuity management and community support as opposed to anecdotal disease management.

## **OPHTHALMOLOGY**

**OPH 804 – Ophthalmology**

**Course Coordinator: Bettie Chapman (chapmanb@marshall.edu)**

**Course length: 2- 4 Weeks**

This elective will acquaint the senior medical student with the techniques of examination of the eye, common fundus pathology, cataracts, glaucoma, common external problems and ophthalmic emergencies. The student may also be exposed to ophthalmic surgery, pre-op and post-operative care.

## **ORTHOPAEDICS**

**ORT 807-WV – In State Orthopedic Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or rotation experiences in Orthopedics within the state of West Virginia.

**ORT 808 - Introduction to Musculoskeletal Care**

**Course Coordinator: Ashley Taliaferro (roach33@marshall.edu)**

**Course length: 2-4 Weeks**

A 4th year elective in non-operative musculoskeletal care is offered, providing experience in multidisciplinary management of diseases of the musculoskeletal system. Rotations may include inpatient medical management of orthopaedic patients, non-operative sports medicine, general clinical orthopaedics, rheumatology, osteoporosis, and physical therapy. This course is Pass / Fail. There is no Call requirement. Evaluation is based on a LogBook of patients evaluated by the student. Visiting Medical Students are allowed enrollment, but preference will be given to Marshall students. For those looking for a subinternship experience, please consider ORT 807. For those looking to fulfill the General Surgery Elective requirement, please consider SUR 744, Orthopaedic Surgery.

**ORT 809 - Orthopaedic Research Elective (NON PATIENT CONTACT)**

**Course Coordinator: Ashley Taliaferro (roach33@marshall.edu)**

**Course length: 4-12 Weeks**

A research elective offered in the field of orthopaedics, primarily to 4th year medical students. Students interested in enrolling must first contact the course directors to discuss research opportunities that are available or may be accommodated by the department. Students will be expected to complete their project in the time allotted. Clinical work is proscribed unless it is germane to the project.

**ORT 868 – Out of State Orthopaedic Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Orthopaedic Medicine.

## **PATHOLOGY**

### **PTH 802, Forensic Pathology**

**Course Coordinator: Robbie Nance (nance37@marshall.edu)**

**Course length: 2 - 4 Weeks**

**This elective is only available to 1 or 2 students at a time depending on the Chief Medical Examiners schedule. Those approved will be required to submit a photo and CV to the CME.**

This elective will provide an orientation to basic forensic medicine for medical students. Daily activities include observation of medicolegal autopsies, visits to out of hospital death scenes, participation in departmental conferences, and working directly with a forensic pathologist as an integral member of the investigation team. The student will assist in postmortem examinations and follow case development inclusive of autopsy protocol dictation, review of microscopic slides, and formulation of the case opinion. The student may also participate in law enforcement interaction, observe court testimony and other aspects of the program. Exposure to the area of forensic toxicology may also be provided.

### **PTH 803 - The Practice of Pathology**

**Course Coordinator: Vincent Graffeo (graffeo@marshall.edu)**

**Course length: 2 – 4 Weeks.**

The student is introduced to the practice of anatomic and clinical pathology at St. Mary's Medical Center. This includes laboratory hematology, flow cytometry, cytology, surgical pathology and other aspects of anatomic and clinical pathology. The emphasis will be on surgical pathology. The student will attend all teaching conferences and rounds. The students are expected to be in the department for the full work day. The student will be required to spend time with the pathologists and technologists in order to gain insight into their role in health care and to allow the staff to give a valid evaluation of the student

### **PTH 868 – Out of State Pathology Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Pathology.

## **PEDIATRICS**

### **PED 801, Ambulatory Pediatrics**

**Course Coordinator: Lisa Watts (lwatts@marshall.edu)**

**Course length: 2- 4 Weeks. This elective is available to only one student at a time.**

The student will observe and participate in the delivery of general pediatric care in the outpatient clinics with the pediatric faculty and residents. The student will participate in well-baby exams and health maintenance visits for infants through adolescence. They will be exposed to a wide variety of acute health problems as well as a wide variety of chronic medical problems.

### **PED 803 - Primary Care Pediatrics**

**Course Coordinator: Lisa Watts (lwatts@marshall.edu)**

**Course length: 2- 4 Weeks**

**This elective is available to only one or two students at a time.**

The student will observe and participate in the delivery of general pediatric care in an office setting with pediatric faculty. The student will participate in well-baby exams and health maintenance visits for infants through adolescence. Emphasis will be on the comprehensive assessment of medical problems of patients and families and development of treatment plans including preventive measures, health education and follow-up care.

### **PED 805, Neonatology**

**Course Coordinator: Lisa Watts (lwatts@marshall.edu)**

**Course length: 2 Weeks. This elective is available to one or two students at a time. Additional Weeks can be taken as an elective.**

The student will observe and participate in the management of the high risk newborn in the Neonatal Intensive Care Unit with neonatologists, nurse practitioners, and pediatric residents. Emphasis will be placed on recognizing and assessing the high risk newborn, instituting acute therapeutic emergency measures, requisitioning appropriate laboratory studies and therapy under direct supervision. Daily assessment of nutritional needs and growth and development of the high risk infants will be among the student's responsibilities. Reading and participation in selected diagnoses and/or management reports related to the patients in the unit is expected.

### **PED 806, Pediatric Community Medicine**

**Course Coordinator: Lisa Watts (lwatts@marshall.edu)**

**Course length: 2- 4 Weeks. Available to only one student at a time. Flexibility exists to include a variety of experiences so that the particular needs and interests of each student are met. Students must contact Dr. Isabel Pino (691-1371) one month in advance so that an appropriate schedule may be arranged.**

The student will spend a variable amount of time with a variety of agencies in order to observe what services are offered and how their individual missions are carried out. This will give the student the opportunity to become familiar with different agencies and services available in the community and to gain an understanding of the workings of these agencies and how they affect the lives of pediatric patients. The student will learn how to access these services when needed by the patient. The student will develop a working relationship with the staff of these agencies in order to be able to better serve the patients. The students will gain experience with local agencies that provide various services to infants, children, and adolescents in our area. Topics in community pediatrics including organization of primary care services, principles of public health, and preventive medicine will be stressed.

### **PED 807 - Pediatric Critical Care**

**Course Coordinator: Lisa Watts (lwatts@marshall.edu)**

**Course length: 2 Weeks. This selective is available to only one student at a time.**

The student will observe and participate in the management of the critically ill pediatric patient. Emphasis will be placed on assessing and recognizing critically ill children and developing early intervention and daily treatment plans. The student will have primary responsibility for one or two patients on daily rounds. Reading and participation in selected diagnoses and/or management reports related to the patients in the unit is expected.

### **PED 808 - Pediatric Cardiology**

**Course Coordinator: Lisa Watts (lwatts@marshall.edu)**

**Course length: 2- 4 Weeks**

This elective will introduce students to the pediatric subspecialty of cardiology. They will participate in supervised clinical evaluation of patients in the outpatient department, hospital ward, and pediatric and neonatal intensive care units.

**PED 809, Pediatric Research (NON PATIENT CONTACT)****Course Coordinator: Lisa Watts (lwatts@marshall.edu)****Course length: 4 Weeks**

Students interested in pediatric research will contact the course director to discuss opportunities for research in the pediatric department. A research experience in Pediatrics will be arranged on an individual basis with a faculty mentor in the Pediatric Department. This course gives the student the opportunity to work with a pediatric faculty member on a predetermined research project in an area of mutual interest. During this elective period the student will attend scheduled lectures and conferences. **(NON PATIENT CONTACT)**

**PED 812 - Pediatric Gastroenterology****Course Coordinator: Lisa Watts (lwatts@marshall.edu)****Course length: 2- 4 Weeks**

This elective will introduce the student to the specialty of Pediatric Gastroenterology. The student will gain knowledge of pediatric gastrointestinal diseases in children while participating in supervised clinical evaluations of patients on the hospital ward and in the outpatient setting. The student will perform supervised physical examinations in the GI clinic and learn to make the proper differential diagnosis of the patient. Patient encounters may include abdominal pain, H. pyloric infection, acute and chronic gastroenteritis, failure to thrive, obesity, irritable bowel syndrome, inflammatory bowel disease, GERD, constipation, celiac, infectious and metabolic liver diseases, biliary tract associated diseases, pancreatitis, gastrointestinal bleeding, etc. During endoscopy procedures, the students will learn the pathology of various GI diseases. There also may be the option of participating in clinical research depending on the availability of research protocols.

**PED 814 - Pediatric Adolescent Medicine****Course Coordinator: Lisa Watts (lwatts@marshall.edu)****Course length: 2- 4 Weeks; This elective is available to only one student at a time.**

This elective is designed to introduce the student to the spectrum of adolescent health care from the healthy future-oriented high school student to the severely emotionally disturbed adolescent. Patients will include those who are sexually active, pregnant, those with gynecological problems, chronic medical and psychiatric problems as well as those presenting for routine and acute health care. The student will be exposed to the multidisciplinary approach to adolescent health care.

**PED 820 - Pediatric Hematology/Oncology****Course Coordinator: Lisa Watts (lwatts@marshall.edu)****Course length: 2- 4 Weeks**

This elective will introduce the student to the specialty of Pediatric Hematology/ Oncology and will involve him/her in the management and care in the inpatient and outpatient setting with a broad spectrum of hematologic and oncologic disorders.

**PED 825 - Child Development and Behavior****Course Coordinator: Lisa Watts (lwatts@marshall.edu)****Course length: 2- 4 Weeks; This elective is available to one student at a time.**

This elective will introduce the student to the psychosocial aspects of Pediatrics. The student will have the opportunity to observe family therapy sessions, developmental evaluations, and observe children in various clinical and community settings. The student will have core reading material. In addition, the student will spend one-half of the elective learning, practicing, and demonstrating basic interviewing skills. Another focus of this elective will be on gaining an understanding of normal developmental processes; attachment, autonomy, mother-infant interaction, coping, Piaget's

cognitive theory, temperament. Different types of screening techniques will also be taught; and Denver Developmental Screening Test skills will be practiced.

#### **PED 868 – Out of State Pediatric Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Pediatric Medicine.

#### **PED 888 - Rural Care Pediatrics**

**Course Coordinator: Amber Vance (elkins34@marshall.edu)**

**Course length: 2- 4 Weeks**

The student will observe and participate in the delivery of general pediatric care in a rural office setting with pediatric faculty. The student will participate in well-baby exams and health maintenance visits for infants through adolescence. Emphasis will be on the comprehensive assessment of medical problems of patients and families and development of treatment plans including preventive measures, health education and follow-up care in a rural setting.

#### **PED 898 - Pediatric Allergy/Immunology**

**Course Coordinator: Lisa Watts (lwatts@marshall.edu)**

**Course length: 2- 4 Weeks; This elective is available to one student at a time.**

The allergy & immunology rotation focuses mainly on outpatient evaluation and management of allergic and immunologic diseases. Aspects of inpatient and emergency evaluation and management will also be discussed. Experience in these areas will vary based on frequency of occurrence of consultations.

### **PHARMACOLOGY**

#### **PMC 785, Clinical Pharmacology**

**Course Coordinator: Dr. Richard Egleton (egleton@marshall.edu)**

**Course length: Option A: 4 Weeks Up to twelve weeks with permission; Option B: 2 Weeks; Option C: 4 weeks (multiple locations). (NON PATIENT CONTACT when completing Research option)**

Option A: This elective offers students the opportunity to research a topic of special interest to them. Students are assigned to a faculty member in the Department of Pharmacology, physiology and Toxicology for guidance and assistance throughout this elective. Projects may involve literature review or a laboratory research project. Research projects may be selected from the areas of Cardiovascular, Pharmacology, Neuropharmacology, or Toxicology.

Option B and C: This elective offers the student an opportunity to integrate clinical drug considerations with didactic pharmacology knowledge. The student will evaluate acute care patients with respect to their active drug therapy, including pharmacodynamic and pharmacokinetic issues. The respective hospital's Clinical Pharmacist will coordinate the student's experience and projects.

#### **PMC 868 – Out of State Pharmacology Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Pharmacology.

## PSYCHIATRY

### **PSI 801 - Child and Adolescent Psychiatry**

**Course Coordinator: Missy Morrison ([clagg11@marshall.edu](mailto:clagg11@marshall.edu))**

**Course length: 2-4 Weeks**

The focus of this elective will be obtaining clinical experience in the diagnosis and treatment of psychiatric disorders in children and adolescents. Common disorders that the student will gain experience in treating include: attention deficit hyperactivity disorder, depression, oppositional defiant disorder, anxiety, and other developmental disorders. Experience will be provided working with hospitalized patients in an acute setting and in a residential treatment program for patients with a history and physical, sexual abuse or neglect and abuse-reactive disruptive behaviors. Experience with treatment of both new and return outpatient child and adolescent patients from the community and region.

### **PSI 802 - Community Psychiatry**

**Course Coordinator: Missy Morrison ([clagg11@marshall.edu](mailto:clagg11@marshall.edu))**

**Course length: 2-4 Weeks**

The primary objective of this elective will be for the student to gain clinical experience in working with adults in outpatient psychiatric settings. On-site supervision of the student will be provided by a Department of Psychiatry faculty. Experience will be offered in a variety of areas including assessment, treatment and hospital consultation.

### **PSI 804 - Psychiatric Consultation**

**Course Coordinator: Missy Morrison ([clagg11@marshall.edu](mailto:clagg11@marshall.edu))**

**Course length: 2-4 Weeks**

The student will be assigned to work directly with the faculty member assigned to consultations. In working with patients from the point of view of the psychiatrist answering a request for consultation, the student will have an opportunity to sharpen interviewing and diagnostic skills and develop a better understanding of the relationship of emotional and physical aspects of illness.

### **PSI 820, Research in Psychiatry/Human Behavior**

**Course Coordinator: Missy Morrison ([clagg11@marshall.edu](mailto:clagg11@marshall.edu))**

**Course length: Minimum of six weeks, maximum of twelve weeks, negotiable with department chairperson**

For the student with an interest in research in behavioral medicine or psychiatry, the option of designing and implementing a research project under supervision will be offered or the student can join an existing research team and become an active participant.

### **PSI 868 – Out of State Psychiatry Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance [nance37@marshall.edu](mailto:nance37@marshall.edu) or Michelle Ruppert [morton9@marshall.edu](mailto:morton9@marshall.edu))**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Psychiatry.

### **PSI 888, Rural Psychiatry**

**Course Coordinator: Amber Vance ([elkins34@marshall.edu](mailto:elkins34@marshall.edu))**

**Course length: 2 - 4 Weeks**

Introduction to primary care with particular focus on wellness, maintenance and disease prevention. The experience will demonstrate team health care provision, case management for functionality and



quality. Patient care will be examined in terms of continuity management and community support as opposed to anecdotal disease management.

## **RADIOLOGY**

### **RAD 810 - Radiology**

**Course Coordinator: Robbie Nance (nance37@marshall.edu)**

**Course length: 2- 4 Weeks. Weeks must be consecutive.**

This four-week elective is designed to provide the fourth year medical student a basic understanding of the principles of radiology and to become familiar with the many diagnostic techniques available, their values and limitations, and how they may best be used in the management of the patient.

### **RAD 868 – Out of State Radiology Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Radiology.

### **RAD 898 – Radiation Oncology Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Radiation Oncology. Can be used for in state and out of state rotations.

## **SURGERY**

### **SUR 801, General Surgery**

**Course Coordinator: Lisa Blizzard (clagg@marshall.edu)**

**Course length: 2-4 Weeks**

The surgical sub-internship in surgery is meant to give the student who is interested in surgery a more in depth experience in surgery. The student will take on the responsibilities of an intern. In this capacity, he or she will see consults in the emergency room and on the floor, manage patients that have been admitted to the service, and assist in the operating room.

### **SUR 805, Oral and Maxillofacial Surgery**

**Course Coordinator: Lisa Blizzard (clagg@marshall.edu)**

**Course length: 4 Weeks**

The Oral and Maxillofacial Surgery elective will acquaint the senior medical student with to the nature and scope of oral and maxillofacial surgery. The course will enable students to better understand the basic clinical diagnosis from signs and symptoms of diseases common to the oral cavity. Students will also be exposed to pre-operative and post-operative approach to the evaluation and management of oral health patients.

### **SUR 806 – ANESTHESIOLOGY**

**Course Coordinator: Lisa Blizzard (clagg@marshall.edu)**

**Course length: 2- 4 Weeks**

At the end of this course, the student will demonstrate the ability to: Obtain pre-operative patient histories including system review, lab tests, plan of anesthesia; Discuss cardiopulmonary evaluations in patients undergoing anesthesia; Develop plans for pre-operative, operative and postoperative care and management. At the end of this course, the student will be able to: Describe the

pharmacology of the drugs used by anesthesiologists/ and common techniques in general and regional anesthesia, including but not limited to; Standard and invasive anesthesia monitoring; Post operative analgesia regimen; Drugs for Sedation and analgesia; Post operative PACU standard of care; Be familiar with the anatomic and physiologic variable to anesthetic practice; Be familiar with Peri operative evaluation for patients scheduled for surgery; Be familiar with the monitoring devices and pharmacology of anesthesia drugs (Sedation and Analgesia).

### **SUR 808, Otolaryngology**

**Course Coordinator: Lisa Blizzard (clagg@marshall.edu)**

**Course length: 2- 4 Weeks**

This Otolaryngology elective provides an opportunity for senior medical students to observe all phases of E.N.T. from both the clinical and surgical aspects to advance their knowledge of otolaryngology and to obtain experience in the diagnosis and management of disorders of the ear, nose and throat in inpatient and outpatient settings. It will also provide contact with various patient populations with acute and chronic head and neck pathologies. Both pediatric and adult patients will be seen in the clinic and operating room.

### **SUR 809, Plastic Surgery**

**Course Coordinator: Lisa Blizzard (clagg@marshall.edu)**

**Course length: 2 – 4 weeks**

This elective in plastic surgery will acquaint the senior medical student with the overall breadth and variety of plastic and reconstructive surgery. The course will enable students to better understand wound healing and the management of injured tissues, as well as basic pre-operative and post-operative evaluation and management of plastic surgery patients.

### **SUR 810, Thoracic Surgery & Cardiovascular Surgery**

**Course Coordinator: Lisa Blizzard (clagg@marshall.edu)**

**Course length: 2- 4 Weeks**

During this course, students will play an active role in the management of thoracic surgical patients. As part of a close knit team, the students will be supervised by residents and attending staff in diagnosis and pre- and post-operative care of patients undergoing general thoracic surgery.

### **SUR 811, Urology**

**Course Coordinator: Lisa Blizzard (clagg@marshall.edu)**

**Course length: 2- 4 Weeks**

This Urology elective will acquaint the senior medical student state of the art medical and surgical care in all aspects of adult and pediatric urology. The student will be exposed to all aspects of urologic practice including laparoscopic, open, image guided and endoscopic surgery as well as office-based practice. State-of-the-art equipment is available including the Da Vinci surgical system, laser technology, surgical imaging systems, lithotriptors and ablative energy sources. The course will enable students to better understand the basic clinical diagnosis from signs and symptoms of diseases common to practice of Urology. Students will also be exposed to pre-operative and post-operative approach to the evaluation and management of patients.

### **SUR 814 - Surgical Research (NON PATIENT CONTACT)**

**Course Coordinator: Lisa Blizzard (clagg@marshall.edu)**

**Course length: 4 Weeks**

The student will develop a laboratory or clinical research project suitable for completion during the period of the elective, with a surgical faculty preceptor. The project and plan will be reviewed by a Departmental research committee prior to initiation and following completion of the research.

Surgical research projects include opportunities in gastrointestinal physiology, cardiovascular physiology, urological disease and surgical infections.

**SUR 833 - Surgical Intensive Care Unit**

**Course Coordinator: Lisa Blizzard (clagg@marshall.edu)**

**Course length: 2 Weeks**

To gain experience with monitoring and evaluation of the critically ill surgical patient. To provide a broad exposure to fundamental concepts of critical care including ventilator management, hemodynamic monitoring, fluids and electrolytes, and nutritional support. To develop an understanding and basic skills in the assessment, initial resuscitation, management and recovery of post surgical intensive care patients from a wide variety of surgical disciplines including general, orthopedic, trauma, thoracic and urologic. To understand the indications for common surgical intensive care procedures.

**SUR 868 – Out of State Surgery Externship**

**Course Coordinator: Office of Medical Education (Robbie Nance nance37@marshall.edu or Michelle Ruppert morton9@marshall.edu)**

**Course length: 2-4 Weeks**

This elective is used for students who wish to seek externships or away rotation experiences in Surgery.

**SUR 888, Rural Surgery**

**Course Coordinator: Amber Vance (elkins34@marshall.edu)**

**Course length: 2 - 4 Weeks**

Introduction to primary care with particular focus on wellness, maintenance and disease prevention. The experience will demonstrate team health care provision, case management for functionality and quality. The experience will include community service such as participation in health fairs, health education projects in schools. Patient care will be examined in terms of continuity management and community support as opposed to anecdotal disease management.

# Fourth Year Student Policies

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# STATEMENT OF UNDERSTANDING

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As a Senior Medical Student, I understand that it is my responsibility to ensure that my schedule is requested and approved on the Student Scheduler at least 14 days in advance of my elective start date. Failure to maintain a correct schedule on the Student Scheduler will result in no credit for the elective even if the elective was completed.

I understand that once submitted and approved on the Student Scheduler, it is my responsibility to obtain reporting information at least one week in advance and that I must complete the elective. If the elective is not completed, a grade of "F" may be recorded on my transcript. Cancellations of the elective are my responsibility and must be at least 14 days before the elective start date.

I further understand that the 14 day rule will be strictly enforced starting July 15, 2008 and the Office of Medical Education will formally register me for the courses with the Registrar's Office at the end of the month for that month's courses.

Student Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Comprehensive Radiology Examination

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To be eligible for graduation, all students must sit for and pass the Marshall University School of Medicine's in-house comprehensive radiology examination during their fourth year. The purpose of the examination is to demonstrate minimal competency in identifying common radiological modalities (e.g. MRI vs CT), basic anatomy (e.g. identify the spleen on CT scan), and various pathological conditions (e.g. pneumothorax, pneumonia, fractures etc.). Students will be given specific testing times and dates in which to choose to schedule their on-line examination. Exams are given on one Wednesday in December and select Friday mornings starting in January until the middle of March. For more information, contact Robbie Nance, Administrative Associate, nance37@marshall.edu (304-691-8592)

## EXAMINATION FORMAT

The format will include, but may not be limited to 100 questions, given in a computer based format. Students will be given 120 minutes to complete the examination.

Images used may include, but not be limited to:

- Plain films
- CT
- MRI
- Ultrasound
- Angiography

## Examination Institutional Objectives

### Institutional Objective

**Medical Knowledge** - Describe the scientific principles underlying laboratory and radiologic diagnostic methodologies.

- **MK4D1.** Incorporate knowledge of the scientific principles underlying laboratory and radiologic diagnostic methodologies into the care of critically ill.
- **MK4D3.** Discuss the basic scientific principles of radiologic diagnostic tests, and be able to give examples of how these tests should be used appropriately in patient care.

### Exam Objectives

- Students must demonstrate a basic understanding of radiographic anatomy.
- Students must distinguish between various radiological modalities.
- Students must identify a disease process based on review of a patient history, physical exam findings and abnormal films.
- Students must evaluate the indications for, and appropriate sequencing of common radiological techniques to determine which would be best used in the management of the patient.

### Institutional Objective

**Systems-based Practice** - Students will be able to recognize and better understand the role of other health care professionals in the overall care of the patient.

#### **Exam Objective**

- Students will understand how different radiological modalities are delivered in the current health care system, and the most appropriate study for various disease states.

### Institutional Objective

**Interpersonal and Communication Skills** - Communicate effectively with patients, patients' families, colleagues, and other health care professionals.

#### **Exam Objective**

- IC4A2. Use written and electronic communication skills effectively within the clinical care setting..

### **Institutional Objective**

**Professionalism**- *Students must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.*

#### **Exam Objective**

- Students must schedule their exam in a timely manner and successfully complete the exam by the deadline.
- Students must use available on-line review resources and independent learning skills to prepare and pass the examination.

### **Institutional Objective**

**Patient Care** - *Justify each diagnostic test ordered and management strategy proposed with regard to cost, effectiveness, risks, and complications, and the patient's overall goals and values.*

#### **Exam Objective**

- **PC3D1.** Choose appropriate tests and management strategies based on effectiveness, risk, cost, and patient goals and values for core clinical conditions.
- **PC4E1.** Integrate information obtained from history and physical examinations, and diagnostic testing, and review of the clinical literature to formulate and appropriate differential diagnosis and plan of care for critically ill and emergent patients.

### **MINIMUM PASSAGE**

A minimum of 75% correct will be required to pass the examination.

### **COMPLETION DEADLINE**

For May graduation, the examination **MUST** be taken and passed no later than April 1. For December graduates, the examination must be taken and passed no later than November 15. Should the required passage date fall on a weekend or non-working holiday, the examination must be taken and passed by the last working day prior to the deadline date.

### **REMEDIATION**

Any student who is unsuccessful in achieving the minimal passage rate must retake the examination until a passing grade is achieved. Failure to obtain the minimal passage rate will result in delayed graduation. It shall be the student's responsibility to contact the Office of Medical Education (304.691.1733) to retake the examination. Dr. Pete Chirico should be contacted for remediation (304.526.5120)

### **Suggested Reading/Other Material:**

<http://www.learningradiology.com/onequestionquiz/onequestiontoc.htm>

[www.learningradiology.com](http://www.learningradiology.com)

Students guide: <http://musom.marshall.edu/students/ms4.asp>

Approved by Curriculum Committee: February 12, 2009

Approved by President's Designee Nerhood: September 1, 2009

Amended by MS IV Subcommittee: December 6, 2010

Approved by Curriculum Committee: January 6, 2011

Approved by Dean's Advisory Committee: January 18, 2011

## Step 2 Policy Statement

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MS-IV students MUST sit for both the USMLE Step 2 CS and Step 2 CK no later than the Sit By Date designated on the Academic Calendar for the year they complete their 4th year requirements in order to be eligible for graduation in May of their designated class year. **Passing both Step 2 CS and Step 2 CK is required in order to graduate.**

Students who delay taking the exam after the Sit By Date, whether compelling reasons were granted or not, will not be guaranteed eligibility for graduation in May of their designated class year.

It is the student's responsibility to register to take the exams and to make any necessary transportation and housing arrangements. The earlier a student registers for the Step 2 exams, the more choices a student will have in terms of testing location and dates. There are limited test sites where the Step 2 CS exam is administered and students are encouraged to register for the examination as soon as possible due to limited space availability.

Only those students who can demonstrate compelling reasons (such as personal or family illness, tragedy) for not sitting for the exam by the Sit By Date will be allowed to register after the Sit By Date. Students requesting a delay must submit a written statement to the Office of Medical Education explaining the reason(s) along with any requested documentation no later than August 15th to be considered. Emergent compelling conditions will be considered on a case-by-case basis. Unacceptable compelling reasons include lack of exam preparation, testing anxiety or difficulty in scheduling a preferred testing site or date.

Students have three attempts to pass Step 2 CS and three attempts to pass Step 2 CK. Failure to successfully complete either of these two exams on the third attempt will result in automatic dismissal from the School of Medicine. Additional attempts to take the exams may be given at the discretion of the Dean.

Approved by Curriculum Committee: February 12, 2009



# Fourth Year Attendance Policy

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## Attendance Expectation

Students are expected to attend every day of their scheduled fourth year rotations as directed by their course director. This includes:

- 4 weeks of required Subinternship Selective
- 2 weeks of required Emergency Medicine
- 2 weeks of required Intensive Care Selective
- 28 weeks of electives
- Students are allotted additional weeks to accommodate residency interviewing, Step 2 CK and CS, vacation and time for issues associated with residency relocation.

## PROCESS FOR REQUESTING ABSENCES

Students must request advance approval for ANY ABSENCE (INCLUDING RELEASE TIME FOR STEP 2 CK AND CS AND RESIDENCY INTERVIEWING) from their course director at least four weeks before the start of the rotation. This request shall be submitted via the Student Scheduler utilizing the appropriate department course number 999 excused absence form (i.e., FCH 999, MED 899, SUR 999)

If properly arranged and approved by the Course Director in advance, students will be excused one day for Step 2 CK and up to three days for Step 2 CS. Students cannot schedule both examinations during the same required rotation or elective.

Course Directors may determine that the multiple absences will be detrimental to students' educational experiences and require that the course be rescheduled if openings are available. For elective courses, course directors will have the discretion to assign make up days or supplemental readings or assignments to account for the missed days. Failure to properly arrange the excused absence before the start of the rotation, unless emergent due to a last minute scheduling opportunity as defined below, may result in the makeup of missed time with penalty or denial of request.

## Emergent Absences for Interviewing or Step 2 Scheduling

Students may request an emergent absence for an interview invitation if the invitation is received less than four weeks in advance of the start of the rotation. WRITTEN Documentation of the invitation for the interview must be submitted to the Course Director prior to approval. Emergent scheduling of the Step 2 CS or Step 2 CK may also be approved as an excused absence if documentation of an exam opening of less than four weeks is provided to the Course Director. Failure to provide WRITTEN documentation will result in automatic denial.

## Unexcused Absence

Students with unexcused absences (defined as any absence that is not approved by the Course Directors in advance) will be required to make up and may be subject to an incident or critical incident report. Nothing in this policy statement should be construed as students having an allotment of personal days in which absences can occur. The Course Directors will determine how the unexcused absence is to be made up.

## Reoccurring Patterns

Questions or concerns regarding a student's attendance pattern are to be brought by the course director to the attention of the Office of Student Affairs. All absences are to be reported as part of the student's evaluation and the Academic Dean will discuss reoccurring absence patterns with the student. In the case of reoccurring patterns, the Academic Dean will determine the appropriate course of action.

REVISED: March 29, 2012 by MS 4 Subcommittee

APPROVED: May 10, 2012 by Curriculum Committee

# Electives Policy

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Elective opportunities are available to students throughout the four years of medical school. Requests for elective courses must be made through the “Student Scheduler” at least 14 days prior to the start date of the elective.

Students who are required to remediate a course may not be eligible to take summer electives.

Prior to the fourth year, a student may take a fourth year elective if permission has been granted by the respective course director. Permission to take the course must be established prior to the start of the elective by the submission of a permission statement to the Office of Medical Education. Only two weeks of fourth year elective requirements for graduation can be satisfied prior to the fourth year.

Electives that satisfy fourth year requirements for graduation have the following restrictions:

- Must be designated as a 4th year level course.
- Must be a minimum of two weeks in duration -- With exception of Essentials of EKG (CVS 800)
- Non-patient Contact electives are limited to 6 weeks with the following exception: Students may, with permission of the course director, schedule up to 12 weeks of a basic science research elective. All remaining electives that are scheduled to fulfill the graduation requirements must be “patient contact” type electives.
- Out of State electives are limited to 16 weeks. Only 8 weeks can be scheduled consecutively; after which it is expected that the students will return to West Virginia for at least one month.

For a list of elective offerings available to first year students during the summer between first and second year, refer to the webpage for [MS1 Student Resources](#).

Refer to the webpage for [MS4 Student Resources](#) for a link to the current list of fourth year elective offerings.

Revisions approved by Curriculum Committee: November 8, 2012

Revisions approved by Dean Shapiro: November 15, 2012

Approved by Curriculum Committee: February 12, 2009

Approved by Interim Dean Nerhood: September 1, 2009