Unsolicited Advice

A Medical Student's Guide to Academic Survival

To the Class of 2016,

We would like to take this opportunity to welcome you again to Penn State College of Medicine. We hope that you are enjoying the orientation activities so far and would like to encourage you to take advantage of this time to relax and enjoy Hershey. Since we were in your shoes just a year ago, we understand that you're probably feeling a little anxious and overwhelmed about starting medical school. In an effort to make your first year as stress-free as possible, we've put together this guide of Unsolicited Advice.

This guide is a compilation of opinions from the class of 2015 and the classes before ours, so some of the sections are slightly borrowed. We've tried to give you a sense of the general opinion of our class because as you can imagine 150 students don't always agree on everything. Don't worry, we've assigned you a "Big" as backup, and he or she can either vouch for or supplement the information in this guide.

The Unsolicited Advice guide contains exactly what it says – a lot of advice that you didn't ask for, but we thought might help. The information in this guide will not be right for everyone but you will have many opportunities in your first year to decide what works best for you. In addition, please don't hesitate to ask us, or any of the second years, for our thoughts about books, classes, or just life in general.

We wish you the best of luck here at Penn State College of Medicine!

Sincerely,

The PSCOM Orientation Committee (pscomorientationweek@gmail.com)

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Saumya Maru
Andrew Jen
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Diagnostic Tools and Instruments: *When and What to Buy?*

You've already got the white coat, so why not top off the apparel with some accessories like a matching stethoscope and sphygmomanometer...right? WRONG!! Don't think that you have to rush out and buy every piece of diagnostic equipment out there this very minute. You will have plenty of time to spend that loan money on equipment. There is a fall sale at the campus bookstore around the first week of September during which you can pick up equipment at a **MUCH cheaper price**. Take advantage of this sale and don't worry that you don't have a stethoscope your first week or so, because you won't need it until after that time anyway. Also, you may want to check out some of the deals on the Internet. For the past two years, the incoming class was organized under the leadership of one of our classmates and bought much of our equipment in a bulk order from a single supplier. This allowed us to negotiate a deal…albeit a small one. Maybe this is something your class would want to consider as well.

Now, as to what to buy… well, there's good news and bad news. The bad news—this stuff is expensive. The good news—it should last for a very long time. As far as equipment goes, the essentials are: **a stethoscope, reflex hammer, and tuning fork** (Editor's Note: I've never heard of anyone actually using a reflex hammer or a tuning fork). If you feel that you want a sphygmomanometer (blood pressure cuff) to practice with, that's fine but not really necessary. The opinions on diagnostic kits (otoscope and ophthalmoscope) are basically split. Some people bought them, some didn't, but everything worked out well. The attitude was one of 'they are generally in every patient room/physician's office so we don't really need them.' However, some rationale for making the purchase is that you own your own set, can practice whenever you want, and appear prepared. In addition, *you are required to bring a diagnostic kit to certain clinical skills exercises with standardized patients and for your OSCE (Objective Structured Clinical Examination) sessions at the end of each semester.* Students who did not purchase a diagnostic kit generally borrowed one from those students who did. They are the most expensive purchase to make, so check around to see what others might think. Regardless of whether you purchase a set now, you will probably need to purchase one by 3rd year, before you start clinical rotations. Below are ideas on what to look for. The ladies at the campus bookstore can also help you out.

STETHOSCOPE:

To paraphrase Dr. Zelis (the cardiologist who teaches you how to use your scope): It's not what you have but how you use it. In a nutshell - all scopes are essentially the same. What matters is that you have mastered using the one you purchased. However, because this will be an investment of money and a career tool, we would suggest first consulting an upperclassman before you buy. To summarize the vast majority of our class and those before us, the usual purchase is the Littman Cardiology III. Other choices include: Harvey Elite, ADC Cardiology and Littman Master Cardiology.

DIAGNOSTIC KITS (Ophthalmoscope/Otoscope):

Because there is only one manufacturer (Welch Allyn) the main decision comes down to choosing a pocket- or full-sized kit. The main difference is size and battery options. The pocketsize comes in both AA battery run and rechargeable, while the full-sized only comes with a rechargeable battery. Both are good; again, it depends on how well you use the model you bought. Some say the pocket models are more difficult to learn on (others disagree). However, the full-size models are slightly heavier to carry in your white coat on the wards. This is not something that you need to go out and purchase right away. Again, take time to consult upper classmen and make a smart choice. The campus bookstore can usually answer questions you might have for this purchase and may even invite a representative from Welch Allyn to give a presentation on the available options.

OTHER TOOLS ("the cheap stuff")

Reflex Hammer – the normal triangular headed hammer is all that's needed. This can be bought at the campus bookstore. Have fun - get one in your favorite color!

Tuning Fork - there are basically three types of forks: high, middle, and low frequency models. Save some money…you only need the middle (256 Hz) model. This also can be bought at the campus bookstore.

A Word on Books: *What to consider when buying*

Here's a word on books before we go any further. Books for med school serve a slightly different purpose than those bought for undergraduate classes. In medical school, books are probably used less than lecture notes. Almost every lecturer will prepare a power point presentation and some create a notes packet for you. The books that you have purchased are generally for either: 1) a reference for material that you do not totally understand, or 2) for required reading (i.e. for reading that is absolutely necessary for the test). **It is no longer time efficient nor necessary to read all of the suggested material that is given to you by the professor; you will only be wasting your valuable time**. Also, book and study preferences differ from one student to the next. Books that work for one student may not work for you.

This guide attempts to suggest books in the course synopses which most of the Class of 2015 and previous classes felt were useful purchases. Also listed are the required/suggested texts and alternative/additional books for those who are interested in purchasing supplemental texts for those courses. **The following book suggestions are VERY subjective and are only meant to serve as a guide as you decide on your book purchases!** More importantly, *don't rush into buying your books*. It's OK to wait a day or two and find out which books you really need for a class rather than waste a lot of money. Feel free to check books out of the library that you are thinking about purchasing to see if it's a good fit for you and worth the investment. Also, talk to your "Big" and/or an upperclassman to see how they selected their books before you buy. Books can often be purchased online through various websites for a lower price than the bookstore, or someone can lend them to you. Shop around for a good deal! But, as a note, many people did perfectly fine throughout the

semester simply by studying their lecture notes and doing some extra research using the e-books provided online by Penn State.

E-books provided online: http://med.psu.edu/web/library/services/collectionaccess/ebooks

Now, what to buy…First, **you will need to have a medical dictionary** as you learn your new language of medicine. Stedman's is an illustrated dictionary and can also be purchased on CD-ROM (Students who join AMA for 4 years will usually get a free perk and in some years this was a free Stedman's Concise that comes with a CD-ROM). Dorland's is another popular dictionary. Also, a very useful reference that you will undoubtedly be using in your Problem Based Learning (PBL) sessions during the second block (CMBMP) and third block (BBD) is *Robbin's Pathologic Basis of Disease.* Again, Penn State has given us access to the e-book version of this text, so again, no reason to rush out and buy.

Robbin's: http://alias.libraries.psu.edu/eresources/proxy/login?url=http://www.mdconsult.com /das/book/143749066-2/view/1249/0.html

The theme here is it is not imperative that you purchase any of these books yet. They are here in case anyone's parents/family members offer to buy a book as a gift. A formal list of required and recommended books is available on the M.S. Hershey Medical Center bookstore website: www.hershey-med.bkstore.com. Search for the school term and class.

SBMP 715: Structural Basis of Medical Practice
(13 credits/11 weeks)
(Anatomy, Clinical Correlate, Embryology, and Radiology)

Director: Loren A. Evey, Ph.D., Department of Neural and Behavioral Science

Faculty (that you'll encounter more than once or twice)**:**

Anatomy:	Drs. Loren Evey and Michelle Lazarus (lecture, lab)—for the entire course Dr. David Phelps, and many others for the last 5 weeks
Radiology:	Many different lecturers
Clinical Correlate:	Dr. Edward Bollard (coordinator) plus other physicians
Surgical Correlate:	Dr. Donald Mackay (coordinator)
Embryology:	Dr. Michelle Lazarus, several grad students, and others

SBMP Books:

Necessary Essentials

Standring, *Gray's Anatomy, 40th Ed*
Rosse, *Hollinshead's Textbook of Anatomy, 5th* (highly recommended but out of print)
Tank, *Grant's Dissector, 14th Ed*
Moore, *Before We Are Born, 7th Ed*
Atlas (pick one): Netter's *Color Atlas of Anatomy*
Clemente *Anatomy*
Rohen's *Color Atlas of Anatomy*
McMinn's *Clinical Atlas of Human Anatomy*
Moses's *Atlas of Clinical Gross Anatomy*
Grant's *Atlas of Anatomy*

Other Books

Chung's BRS series *Gross Anatomy*
High Yield Embryology

Course Synopsis:

The majority of the grade in this block will be based on your performance in Anatomy, which is split into two parts. Throughout the 11 weeks, you will take four Anatomy examinations at the end of weeks three, six, eight, and eleven (each exam consists of two separate tests – a two hour practical and an approximately five hour written). Embryology topics are included on the anatomy written exams. So, on Anatomy exam days, you're pretty busy from 1:00 pm until about 8:00 pm (trust us, it really does take that long, but don't let this scare you). Both the Anatomy practical and lecture exams are worth 100 pts each. The practicals consist of 50 stations with 2-point questions; 96 points come from tags on the dissected cadavers and 4 points are x-rays or MRI's from the radiology section. The written exams vary in style but usually consist of identification, true/false, and several long and short essays. The entire course grade is out of 800 points (200 points for each of the four exams). In order to pass SBMP, you must have a 60% average overall (at least 480 points total) and pass five out of the eight exams (that is, get 60% or better on at least five of the exams). Exams frequently incorporate questions and topics used on old exams, so keep that in mind and check the old exams on reserve in the library!

With the absence of Dr. Zagon, the entire anatomy course is now taught by Dr. Loren Evey. Be sure to bring your colored pencils because you'll want to follow along as he illustrates every nook and cranny of the legs, thorax, abdomen, pelvis, upper extremity, back, head and neck on projected over-heads. Lectures often go over the scheduled time slot (they last approximately 90 minutes), but there are usually breaks so you can stretch your legs. In the lab, you and your lab group (3-4 fellow students) are responsible for the dissection of your cadaver. Who performs the dissection is strictly up to the members of your group but, remember to look at other groups' cadavers because you will be tested on their bodies, too (and every cadaver is different). You may feel somewhat apprehensive about lab. But really, relax! There will be several helpful, knowledgeable TA's (anatomy grad students), upperclassmen, and docs roaming the lab to answer your questions and confirm your findings. In lab, some students will be more zealous than others. It is important to each work hard and work as a team in your lab groups. There is limited study time outside of the dissection sessions, so it is beneficial to help each other and learn as much as you can during the sessions.

Another portion of SBMP is Clinical Correlate, which is organized by Dr. Bollard and usually is held earlier in the morning. It provides examples of how the anatomy you're learning applies to "real world" cases, usually surgical procedures. This seminar-type portion of the block provides a relaxing break from Anatomy lecture and lab. Best of all, *no note taking or questions on the test, although some questions may be related to the cases seen in these lectures*. Attending these lectures is recommended as it was interesting to finally see some clinical application.

A newer portion of the course is the Surgical Correlate run by Dr. Mackay, the chief of the Division of Plastic Surgery. This part of the class is completely optional but highly recommended by students. He will come and speak to the class about shadowing opportunities to get into the operating room and apply the anatomy you're learning in the lecture room/lab. Great way to network, too!

The Radiology portion of this block was formerly coordinated by Dr. Schetter, but these days radiology lectures are given by many different members of the radiology department. You learn how to read X-rays, CTs, MRIs and other scans. The images correspond to the region of the body currently being studied in Anatomy. A few questions from radiology will be on the Anatomy practical exam, and they are worth four points (4 questions total). Don't let that keep you from studying it—the correlation is helpful to most and those 4 points can definitely save your grade. *No text is necessary* and the films shown in class can be printed out from the web.

Finally, there is Embryology, which will be organized and taught by a combination of graduate students and Dr. Lazarus. Embryology topics are included on the written portion of anatomy exams only. **Material from the book and the lecture is testable**. Embryology is crucial to understanding the organization of anatomy and becomes more important in second year since the subject is covered on the boards, so don't blow it off! Again, these few points on the exam can make or break your grade.

IMPORTANT ADVICE:

The number one advice we can give is to ***GO TO CLASS!!*** None of the lectures in SBMP are MediaSited, so you will want to be in Lecture Room B every day. If you do not attend class, you will risk falling severely behind. Time is precious in this first block, so please don't set yourself up for disaster by missing classes. Dr. Evey has asked that we mention that it is **absolutely essential** that you go back into lab outside of your regularly schedule time. According to him, the ID list has more items on it to identify that can be done in the normal lab time. We found it best to try to coordinate times in the evening with our lab group or friends to go back in and dissect. Do **not** go back into lab during the scheduled time for the other large group as that defeats the purpose of the platoon system. You can go back at any time other than the scheduled times since the labs will be accessible 24/7 (the ID card they give you during orientation week can open it).

Make sure you reference Gray's—it's considered the gospel in Anatomy. *Also, memorize the cranial nerve diagrams Dr. Evey hands out upon the start of the second half of the course. They're time consuming, so the sooner you start, the better off you are.* **Looking at old exams is always a good idea,** and you can get a good idea of the material and types of questions that are presented by these tests. Consult your Big, the website, or the library—there is a reserve collection of old exams and practice questions. Although these are a great way to see what has historically been asked on exams, they are not indicative of everything that can be asked on your tests. Sometimes you'll see questions repeated but **it is our best advice to not rely solely on old exams to the point where you don't learn the material.** Dr. Evey also warns students to beware of the CD-ROM programs for anatomy. From his experience, the students that rely on these programs do not start off so great…but a correlation does not indicate causation, so if you decide to use these programs, don't say you weren't warned!

Your Big will probably be your best resource since they have been through it already. Take some time earlier in the semester and pick their brain about study methods and how best to navigate through the sea of

information that is anatomy. Because they volunteered to be your Big, they will be more than happy to answer your questions!

For the Anatomy practicals, the best advice is to be there for the dissections, read the dissector and atlas before lab, and **LOOK AT OTHER CADAVERS**!! From the 50 questions on each practical only 2 will come from your body so if you only feel comfortable with your cadaver...well...you're in medical school, you should be able to figure it out. A "practice practical" will be set up by the second years before your first official practical of Anatomy, and possibly before every exam, depending on interest from your class. It is exactly like the real practical, only that the dissections are done by the students and not the teachers. Take advantage of this opportunity. It is done so that you can identify weak points in your understanding and study habits, and work on them before the official exam.

Dr. Evey also wants to stress the **idea of teamwork**. You've all made it to medical school and everyone will become a doctor provided they pass medical school, regardless of grades. It makes for a better medical school experience if you *help each other out and work together in getting through probably the toughest class of your educational careers to date*. The grades honestly do not matter much as long as you pass…the important thing is that you learn the material.

Also, if you have any problems, questions or concerns, Dr. Evey, Dr. Lazarus and the SBMP faculty are very friendly and open to your queries. Don't be afraid to approach any of them for questions after lecture or even in the hallways during the day.

FCM 713/714: Foundations of Clinical Medicine I
(4 credits, entire year)

Directors: Patricia Gordon, M.D., Course Co-Director
Ext. 8414, Room C7864
Email: pgordon@hmc.psu.edu

Peter R. Lewis, M.D., Course Co-Director
Ext. 8736, Room C1613
Email: plewis@psu.edu

Text: Seidel, *Mosby's Guide to Physical Examination*, 7th *Ed.* (Required readings come from this book. It's not essential to buy it; however, many people from our class did because it's a great reference tool for now and for the future.)

Interactive Guide to the Physical Exam CD

This course has many components and runs for the entire year with only one grade given at the end of the course (Pass/Fail). Although there is only one grade given on your transcript, each component is graded (pass/fail). **WARNING!! You must pass/fulfill each component in order to pass the entire course**. It will be easy with your full course load to blow these components off. Try to avoid this. It isn't difficult to pass FCM,

but it's easy to fail it. Don't forget what you have to do! It's the main clinical experience you get during your first year, so enjoy it!

Component 1: Physical Diagnosis

This component runs from late August through late November. You will receive a lecture on a specific physical exam component (such as the lung, skin, etc.) and then go to a small group session (with about 10 other medical students) and practice what you've learned with a supervising doctor and sometimes standardized patients. FYI: There will be no genital or rectal exams in the first year. **The text (*Mosby's*) for this component is a great resource.**

Grading: There is a required Harvey (machine you perform cardiology exam techniques on) session in the fall and a required online cardiovascular exam in the spring. You must attend all of the required small group sessions. Following the completion of your fall small group teaching, you will complete a ten-minute videotaped physical examination with a standardized patient. You will be required to bring a diagnostic kit to this session. These videos will be reviewed with your clinical skills faculty advisor. A second videotaped physical diagnosis session will be held at the end of spring. Being videotaped sounds nerve-wracking, but trust us, you will be adequately prepared to enter the room and do your physical exam with confidence.

Component 2: Clinical Interviewing

This component takes place from August to late November. This component commences with two lectures devoted to core aspects of communication and the doctor-patient relationship. These topics are reinforced during small group teaching sessions that will meet four times during the Fall of Year I. Each group (~15 students) will have a physician from the Department of Family and Community Medicine as a professor. You will be instructed on how to conduct a thorough patient interview including: chief complaint, history of present illness, past medical history, family history and social history. You will also have discussions on topics such as difficult patients and how to approach sensitive subject areas in the interview. Each session will acquaint you with specific components of the clinical interview, and will include simulated interviews with standardized patients. These sessions are particularly important as taking a good clinical interview is the basis of any successful physician-patient interaction.

Grading: This course culminates in a ten-minute videotaped interview with a standardized patient and subsequent critique of the tape with your small group facilitator. No need to worry, the videotaped session was very relaxed and no big deal. **WARNING!! Class participation is a large factor in the grade for this course and attendance is mandatory.** Sorry, you can't skip out on this one if you don't feel like going.

Component 3: Clinical Skills Teaching Sessions

You will be assigned to work with a clinical skills faculty member who also serves as your faculty advisor. This physician is usually in primary care, and you'll work with them through your first two years. You

meet with your advisor four times throughout the year for clinical skills sessions**. WARNING: PRINT OUT THE FOLLOWING PAGE AND BRING IT WITH YOU EACH TIME YOU GO TO A CLINCAL SKILLS SESSION.** This form will be discussed during orientation week, but you will quickly forget about it. **THIS FORM IS REQUIRED TO BE COMPLETED AND TURNED IN AT THE END OF THE SCHOOL YEAR.** You do not want to get to the end of the school year and try to remember details like the ages of the patients that you saw on your first clinical skills day – you won't be able to do it. You will need to document that you completed each one of the boxes listed on the form (i.e. Focused PE). The experiences of clinical skills varied: some people love them and their advisors; others weren't so fortunate. The sessions are typically conducted in pairs or groups of four students. They're supposed to be scheduled when you do not have any other academic responsibilities, but this varies from advisor to advisor. Some people had all four of their sessions crammed into a two-week period, and others had them spread out more evenly throughout the first and second semester. Don't be afraid to contact your clinical skills teacher and initiate times to meet if they seem like they won't contact you by the end of the semester. The majority of the clinical skills advisors, though, are pretty on the ball and will allow you to fully practice your skills.

PENNSTATE HERSHEY
College of Medicine

Patient Encounter Log: FCM I Clinical Skills Teaching Sessions

Student Name_____ Class of 2014
Faculty Name_____

Session # (1-4)	Date	Location of Interaction		Patient Age	Chief Complaint	Interaction Type (Check all that apply)						CS Faculty Sign-off / initials
		Inpatient	Outpatient			Complete History	Focused History	Complete PE	Focused PE	Oral Presentation	Written Presentation	

CMBMP 711/712: Cellular & Molecular Basis of Medical Practice
(7 credits each half/8 weeks each half)
(Biochemistry, Physiology, Histology, Molecular Genetics, and Pharmacology)

Co-Directors: Christopher Yengo, PhD, Cell. Molec. Physiology (co-director; CMBMP)
Cara-Lynne Schengrund, PhD, Biochem. & Molec. Biology (co-director; CMBMP)
Elizabeth Frauenhoffer, MD, Pathology (co-director of histology component)
Charles Lang, PhD, Cell. Molec. Physiology
Ralph L. Keil, PhD, Biochem. & Molec. Biology

Faculty (that you'll encounter, more than once or twice, there's over 40 different lecturers in this block):
Biochemistry: Drs. Flanagan, Ropson, Gowda, Sinha, Schengrund, Keil
Physiology: Drs. Lang, Lynch, Yengo, McAllister, Scaduto, Feith, Shantz, Shi, Stocker, Ray
Mol Gen/Cell Bio: Dr. Spector, Grigoryev, Verderame
Histology: Drs. Crist, Phelps, Frauenhoffer, Clarke, Zander, Bollard
Pharmacology: Drs. Kester, Ellis, Vrana

CMBMP Books:
Please keep in mind that your notes are the source of testable material. Any reading that you choose to do is to enhance your understanding of the notes.
Suggested Essentials from Syllabus
Boron and Boulpaep's *Medical Physiology*
Harper's *Illustrated Biochemistry or* Delvin's *Textbook of Biochemistry, 7th Ed.*
Katzung's *Basic and Clinical Pharmacology*
Ross and Pawlina's ***Histology: A Text and Atlas***
Griffiths' *An Introduction to Genetic Analysis*
Ogilvie's *Histology: Independent Study Exercises*
Emery's *Elements of Medical Genetics*

Other Books
Lippincott's *Biochemistry Review*
Lippincott's *Pharmacology Review*
Sabotta and Hammerstein's *Atlas of Histology*
Wheater's *Functional Histology*
West's *Respiratory Physiology*
Morhman and Heller's *Cardiovascular Physiology*
Koeppen and Stanton's *Renal Physiology*
Goodman and Gillman's *Principles of Pharmacotherapy* → available online to PSU students at:
http://medjournal.hmc.psu.edu:2331/resourceTOC.aspx?resourceID=28
Garrett and Grisham's *Biochemistry*
Voet and Voet's *Biochemistry*
Stryer's *Biochemistry*
Ganong's *Medical Physiology*
Costanza's *Physiology Review Book*
Gartner and Hiatt's *Color Atlas of Histology*

Course Synopsis:
Well, get ready. This section seems to be the most troublesome during the first year. This block is the longest and feels like it will NEVER END. The best thing about this block is that you no longer smell like the Anatomy Lab! The toughest part of the block is that there is no explicit focus on one subject as there was in SBMP. This course is based on integrating Biochemistry, Genetics, Pharmacology, Histology and Physiology. So, things can get a little sticky from time to time. The format is predominantly lecture, but you will get your first

introduction to Problem Based Learning (PBL) through five cases. Your typical morning will be filled with lectures on Biochemistry, Physiology, Genetics, and Pharmacology, and your typical afternoons will be occupied by Histology (lecture and lab), PBL sessions, or more lectures. Since this block covers all of Biochemistry and Physiology, there are a countless number of different lecturers (a partial list is included above). We have been assured by "the powers that be" that the reason for the carousel of Ph.Ds. is to ensure that students get the information from the most qualified person in the institution. Don't worry, you will sit through a few lectures and you will feel clueless, but everything has a way of coming together the week of the exam - when you essentially have "all the pieces of the puzzle."

The written exams (all multiple choice questions with histology identification) for this block include material on Biochemistry, Physiology, Genetics, Pharmacology and information covered in the PBL sessions. The first half of the course (November through mid-December) focuses on introduction to pharmacology; general biochemistry and carbohydrate metabolism; introduction to molecular genetics with recombinant DNA material; and general cellular processes. The second half of the course (January through spring break, mid-March) focuses on lipid and protein metabolism, endocrine, cardiac, muscular, nervous, GI, respiratory, renal physiology, and some pharmacology. You will get separate grades for each half of the course. Three exams cover the information from the first eight weeks before winter break (entirely multiple choice with two questions per lecture). The second half of the course (nine weeks) will have three exams. **Some of the CMBMP exams will frustrate you.** Some teachers are very fair and write clear, concise questions that will test your knowledge and challenge you. Some aren't so nice on exams and can be downright nasty. In spite of this, you will succeed if you put the time in.

For Histology, you will be tested during the CMBMP exams using PowerPoint slides, which will be shown to the entire lecture hall. Each slide is shown for a number of seconds (enough to quickly read the question and give a good look) and then they are repeated through once for a shorter time period. The histology you learn will roughly correlate to what you are learning in physiology. Most of the information you need to learn concerning histology is given in the lectures, but it may be necessary on occasion to refer to a textbook for clarification. It is helpful *to look over pertinent slides the night or morning before the test so the pictures are fresh in your mind*. Remember that the histology portion will get harder with each exam, so don't slack off if you do well on the first one!

Another portion of the CMBMP block grade is your performance in PBL sessions. The focus of the grade is knowledge, participation, and cooperation. However, dominating the conversation, talking over others and being generally uncooperative with other students will get you negative marks. The key to PBLs is to formulate and find the answers to Learning Objectives that are relevant to the case at hand. As a group, you will generate these Learning Objectives (essentially things you need to look up to understand better). At the end of the case, a list of official Learning Objectives will be made available to each group, so that there is consistency in what you need to know for exam questions. In PBL, it is the process of finding information as well as your ability to carry on an intelligent discussion with a group of your peers that is important. Also, while it is

important to speak, realize that re-phrasing what was already said and dominating the group are PBL no-no's and can hurt your grade as much as not speaking can. Attendance at all PBL sessions is mandatory. The major problem with PBL, as you may find, is that since there are many professors participating (some MD's or PhD's or both), the grading style is subjective and based solely on your facilitator's assessment of your performance. **The important thing to remember is that it only makes up a very small portion of your final CMBMP course grade as they contribute only 5 questions to each exam**. You will also receive a separate grade for PBL at the end of the year based on your assessments by the facilitators you had throughout the year. Don't get too caught up in grades, just try to get something out of discussing the material with your peers.

IMPORTANT ADVICE:

This course is often strenuous, but we who have survived this block learned a great deal in the process, as will you. The best piece of advice for this block is: **Do not fall behind!!** It is **virtually impossible** to catch up if you do. So, by saying "do not fall behind," we mean you should be reviewing and synthesizing information daily! It doesn't hurt to go over the lectures and notes a day ahead, so you don't feel like a tidal wave of unfamiliar information hits you each day. Also, do not ignore smaller subjects (such as Pharm, Genetics, PBLs) because you can lose a lot of points only concentrating on the big guns (Biochem and Physio). Nonetheless, if you do end up falling behind, remember that professors with more lectures have more questions on the test, so prioritize accordingly. A general rule is that there are two questions from each lecture on the exam. Additionally, these classes are MediaSited and will be posted shortly after that class ends. MediaSite is a perfect way to be able to go back and jot down notes that you missed. But with that said, a word of caution if you rely solely on MediaSite as a substitute to going to lecture – there were many times last year that MediaSite did not activate, did not record sound or that the camera was not positioned to look at the overhead screens. Sometimes the lecturer went over time and saved some important points for their wrap-up and this was not recorded on MediaSite. While it is a useful tool, be aware that there are limitations and downsides to relying solely on it.

In order to pass this block you must do just that—pass the block…as a whole. As in SBMP, there will be only one grade reported on your transcript. This means that you can pass the whole block even if you fail an exam.

The best study method to use for the block is…well that's a tough one. For the Biochem portion studying the notes thoroughly will help a lot. Many people like reading from Lippincott's *Biochem Review* (great book! You should definitely consider buying it especially if you've never taken Biochem before). The notes for the lectures last year were so complete that attending class probably wasn't necessary (not that such a thing would ever be suggested). A textbook for Biochem may not be needed. Harper's Biochemistry was the recommended text for the course but many students were unhappy with it (especially if they'd never taken Biochem before). The comment made by most is that it is hard to read and get through. The consensus from last year's class was to use biochem books from college as needed – in fact, some professors take slides from books

such as Garrett and Grisham, Voet and Voet, and Stryer. Texts, at the very least, can be helpful to supplement those clueless lectures.

Physiology is another story. While the notes are substantial, you may need a text to explain some of the holes in your notes. Many students in last year's class liked Boron and Boulpaep. Almost all professors use it as the recommended text with most of the figures and notes coming from it. For this component, some professors suggest additional smaller texts for their subcomponent. Keep it simple and resist the urge to buy the texts in the beginning—buy them as you need them or borrow them from the library.

As far as Genetics goes, Griffiths' *Introduction to Genetics* is a good reference but may not be necessary depending on your background in the field. MD/PhD's use this extensively, but for the straight MD's, the notes (particularly Dr. Spector and Dr. Verderame) are thorough and should be substance enough to carry most through the subject matter. Remember that all the texts are available in the library, so it is very easy to copy a few pages for referral instead of buying the whole book.

Histology can be conquered if you understand both the structure and function of the specimens. You'll also definitely want to keep up with the lab material. If you want to make-up some ground on the CMBMP lecture exams, stay on top of the Histology material. The material only becomes overwhelming when you try to study all of it at the last minute. Random Tip: some students found it useful to review these lectures over a meal because it is easy to scroll through multiple pictures in a couple minutes – a great refresher. The notes for this section were substantial so a note/atlas combination may be all that is needed. There are numerous websites available that have histo slides—use them as needed.

If this block sounds like a nightmare, that's understandable. Don't sweat it though – you'll make it and then Spring Break and your Primary Care Preceptorship (one full week of patient contact) are the light at the end of the tunnel. It only gets better.

EDITOR'S NOTE, CLASS OF 2015: Concerning books, histology, exams and grades

While almost every professor will tell you there are required or recommended readings, books are not truly required for this class. Almost every exam question will come from material that was presented somewhere in lecture or on a PowerPoint slide. Many of the students in our class who got Honors in CMBMP never used books, studying solely from MediaSited lectures and the PowerPoints. The one place where this does not necessarily apply is with histology. Some of the histology lecturers do not present the information completely, or there is just too much material to go over completely in the allotted time. It may be necessary and is often recommended that you read over the relevant material in the recommended histology text. The recommended text is very useful and also easy to use and read. There are plenty of colored slides with clear descriptions and captions of what you're supposed to be looking at. Another note concerning histology relates to exams. There are a disproportionately large number of questions about histology on the exams compared to how many lectures you actually have. The general rule for most lectures is that there are 2 questions on each exam per lecture, but for histology, there are 5 questions per histo module, which is usually either 1 or 2 lectures long. It

will not be to your benefit to ignore studying histology, no matter how difficult you find it (which many do), or how much you hate it (which even more do). Concerning exams, tread cautiously as the first exam of CMBMP approaches. It is EXTREMELY easy to get careless and fail this exam. They usually warn you on the first day about this, and in my year, approximately 20% of the class failed the first exam. This course in general is very easy to fail if you're not careful. In anatomy, they take steps to make sure you don't fail, but there are no such luxuries in CMBMP.

BBD 716: Biological Basis of Disease (6 credits/8 weeks)
(Microbiology, Immunology, Pathology, Pharmacology, and Cancer)

Co-Directors: Michael Katzman, M.D., Department of Infectious Disease and Epidemiology
David J. Spector, Ph.D., Department of Microbiology and Immunology
Robert Bonneau, Ph.D., Department of Microbiology and Immunology

Faculty (that you may encounter more than once or twice):

Microbiology:	Drs. Meyers, Wills, Isom, Zurlo, Spector, Craven
Immunology:	Drs. Bonneau, Schell, Craig
Pathology:	Drs. Christensen
Mol Gen/Cell Bio:	Drs. Ladda, Verderame, Baker
Pharmacology:	Drs. Katzman, Berlin, Julian
Cancer	Drs. Verderame, Harvey, Baker, Vrana, Freiberg

BBD Books:
Suggested Essentials By Second Years

Murray's *Medical Microbiology*
Abbas's *Basic Immunology, 3rd Ed* ***(WONDERFUL BOOK!-HIGHLY RECOMMENDED)***
Parham's *The Immune System*
Clinical Microbiology Made Ridiculously Simple ***(HIGHLY USED BY OUR CLASS)***
Robbin's Pathologic Basis of Disease → Available online: see "A Word on Books" for web address
Gelehrter's *Principles of Medical Genetics*
Katzung's *Basic & Clinical Pharmacology*

Course Synopsis:

Finished with Spring Break and CMBMP, you're now entering the home stretch of your first year. This block is very short (8 weeks from mid-March to mid-May) and involves much less class time and stress than did CMBMP. Beware, though, the slower pace of the block and the nice spring weather can breed complacency. There will be three exams making up 95% of your grade. The first exam will be worth the most points and the third exam will be worth the least. The test format consists of about 90 to 110 multiple-choice questions over 3 hours. Something to remember – there will be questions on the exam from both PBL and lab so don't forget to study these, as well. The remaining 5% portion of the grade is based on Micro lab (see below).

Drs. Spector, Katzman and Bonneau have this block **very well organized**. PBL sessions correlate well to subjects that are covered in lecture. The PBLs and lectures are also more evenly distributed as opposed to having lecture time dominate as in CMBMP. Eight PBL cases are covered in BBD. Again, due to the broad subject area, the lectures are given by numerous professors, each an expert in that field. However, the lecturers' handouts for this block are much shorter and to the point than in the previous block, which should save you a lot of time.

Micro Lab is under the direction of Dr. Bonneau. It is a very **well organized, clinically oriented, low intensity lab**. There are 5 labs throughout the block. You and your group (3-4 students) will conduct experiments testing for various microorganisms. Your friendly and always present T.A.'s (micro/immuno grad students) will take your hand and lead the way. Your lab grade depends on your scores on the lab reports. Don't get all stressed as these reports are only 1-3 pages of observations and fairly straightforward questions at the end of each lab guide. The reports account for about 5% of the block grade.

IMPORTANT ADVICE:

This block is probably the most enjoyable of the year – by now you've (hopefully!) already developed a pretty good study strategy and understanding of how to select the books that work for you. However, some are "late bloomers" and wouldn't mind the advice, so…

There are three exams to this block. The first exam covers bacteriology, antibiotics and immunology. The second exam covers mycology, virology, parasitology and vaccines. And the last exam covers cancer and medical genetics.

The notes for this block are pretty good overall, but vary in quality depending on the subject area they are from. Micro lectures feel a little scattered, but all the information you need is presented in the lectures and reading a book should be basically unnecessary. The notes are excellent, succinct and (for the most part) clear. With respect to texts, opinions vary but Murray's *Medical Microbiology* is suggested and is very clear and easy to understand. Many in our class found *Clinical Microbiology made Ridiculously Simple* to be a great resource, especially with having to memorize various bacteria and their clinical presentation. It is filled with great mnemonics and funny pictures to help you remember all the diseases and drugs.

The Immunology portion is considered by most to be the toughest section of the block. Some lectures and notes are pretty good while others were very confusing. Dr. Bonneau is the component leader and teaches many of the lectures. His lectures are very understandable and will definitely keep you awake. The pictures on his slides come directly from Abbas's *Basic Immunology,* and the book is a great supplement to the lectures. It is also very easy to read.

For the Pathology material, the notes are fair, the lectures were interesting but cluttered and the text was useful. Robbins' *Pathological Basis of Disease* is the recommended text for this section, and although it's not really necessary for the Pathology course, it is an excellent text. It was easy to use, had great illustrations and was an excellent book for PBL. Rubin and Farber's *Pathology* is also good. Use your veteran book-buying judgment on this one.

Other Courses Throughout the Year

Social Influences of Health

Course Co-Directors: N. Benjamin Fredrick, M.D. Director of the Global Health Center, Associate Professor Department of Family & Community Medicine

Essentially, this course is designed to introduce you to the social and cultural aspects of medicine and how they affect a physician's decisions and practice. Its sections included epidemiology, social dimensions of

health care, medical economics, poverty and global health, disability, and diversity in health care. It goes from August to December and the first half consists of lecturers while the second half consists of lectures given by groups of students on topics assigned to them. There will be required readings for this course, quizzes on those readings and a final exam consisting of questions developed by your classmates based on their presentation. **When making your presentations, it would be helpful to make a slide of Learning Objectives, so that your classmates have an idea of important points to study**. There is also a required Service Learning Project, where you spend time in an urban or rural underserved area – many people loved this portion of the class. Overall, some of the lectures were incredibly interesting, but the course tends to be poorly attended. However, there will be a few classes that require attendance. Be sure to attend these or you may end up with an extra assignment over Winter break!

Grading: The course was graded Honors/High Pass/Pass/Fail. It includes a 20-minute Seminar presentation and a handout.

Medical Humanities

In your group of about 16 students, under the direction of a faculty member from the Department of Humanities, you will be discussing issues such as diversity, ethics, religion in medicine and much more. Your discussions will revolve around assigned readings posted on ANGEL. The purpose of this component is to focus on the humanity of the patients we treat. The work for this component is neither intense nor overwhelming, but can be inconvenient at times. You're required to write several one-two page paper addressing a prompt that cites a few of the readings you had for the week. Beware, some readings may be interesting, others may put you to sleep. Participation is essential. Be ready for a range of discussions as well as getting to know your classmates in a deeper way. Many students liked to complain that this class is the world's biggest 8 am burden, but it is definitely a class that you should go into with an open mind. It will teach you how to approach each patient individually and how to form better doctor-patient relationships.

Included in Medical Humanities is the Patient Project. In the Patient Project, you and a fellow student are assigned to a patient in the community who has a chronic illness. You're expected to visit them about once every other month and get to know them and their family. This project is incredibly rewarding, and many students continue to keep in touch with their patients after their first year. Everyone is required to write a summary paper about their experience, but some pairs can elect to do a video project, which tends to be a very moving part of the program.

Grading: The component grade is comprised of class participation, attendance, written assignments, and the patient project paper. The patient project paper is the huge assignment for this class: a 6-8-page paper based on information gathered from your Patient Project interviews. So, when you interview your patients make sure that you are as thorough as possible and try to take some notes after each meeting. It is graded Honors/High Pass/Pass/Fail.

Evidence Based Medicine (Biostatistics)

This is a basic biostatistics class and runs from late January to March. If you have had a statistics class before, this will not be a difficult class. If you never had statistics and aren't statistically apt, this could be a class that gives you a little trouble. Dr. Chinchilli has done a great job organizing the course. In addition, his PowerPoints are to the point, and they're all you really need to study.

Grading: There are a few online quizzes you must complete based on assigned articles. They're pretty straight forward if you have the article with you when you take them. The last grade for EBM comes from the closed book, multiple choice final. That, too, is pretty straightforward if you read Dr. Chinchilli's lectures.

PCMED 700: Primary Care Preceptorship (1 credit/1 week)

Now is your chance to see how much you've learned and to put all of that knowledge you've gained to use. This component is during one of the two weeks scheduled for Spring Break and will probably be one of your most favorite weeks of your first year. You will be placed in a lottery (a very complicated system explained later) and placed by rank-order of preference into a Primary Care Practitioner's office. You will only be permitted to precept in a Primary Care Specialty (Family Medicine, General Internal Medicine, or General Pediatrics) so don't ask to do surgery or anything like that. **You can pick a physician to work with anywhere in the country, as long as you get it approved by the Office of Family and Community Medicine by turning in the required paperwork by a certain date in the Fall semester – there will be no acceptations if the paperwork is turned in late.** If you don't have a preference, the lottery is your chance to find someone. You will give preferences for regions and primary care specialties. In the experience of the Class of 2013, 2014 and 2015, it is likely you may not get any of your preferences, but if you're nice to the ladies in the Family and Community Medicine office and get your forms in early, you will have better luck. If you choose to go outside of the lottery, we advise you to set it up very early! There will be a form you will need to have your chosen practitioner fill out. Even August or September is not too early to do this because the deadline will come up quick and no extensions or exceptions will be offered.

The requirements for the week will be to complete at least one interview and one focused physical exam and write a SOAP note. Many of the docs will let you do a lot more, especially if you step up and ask! The grading is pass/fail, which allows this to be a relaxed experience, and your preceptor will also evaluate you. However, when contacting your preceptor (whether it be your family doc or someone else) make sure that they know what you expect from your experience because some students did not get the best experience.

Be aware that there are requirements for this class, it is an actual class, and there are mandatory deadlines that sneak up on you very, very quickly. It is fully possible to fail this class, and if you fail another one in addition, you will have to repeat the first year. Do not push the requirements and deadlines for this class aside. It's one of those things that's not hard at all to pass, but very easy to accidentally fail.