A. Comments from current and former under-graduate students (2017 – 2006).

2017, Belenky Nicole, Taking Systems Physiology over this past summer with Dr. Advis has truly changed my outlook on school and studying, in general. Prior to this class, I, along with many other students, viewed studying as memorizing "junk," as Professor Advis likes to say. I would like to reiterate the fact that memorizing will NOT work in this class; rather, you must understand the information by linking different concepts together and thinking things through. By the time the class is over, you will realize that only this form of studying will help you in the long run, whether you plan on going to grad school, med school, vet school, PT school, etc. In fact, this form of studying is considered to be "active learning," and it makes the learning process much more interesting. Dr. Advis even tells you what aspects to focus on from each chapter, so listen to him!! If you follow all of his suggestions, make punch-lines for yourself, and make an effort to do well in the class, you WILL. Your results depend on the amount of time you spend effectively studying for this class, your prior knowledge of prerequisite material, and most importantly, your desire to learn. Good luck and enjoy the course! As Advis always says, "If there's one thing you should learn from my course, it's how to study."

2017, Zackariya Aburub, I have never learned more in a course than I have and am learning within this one (Summer System Physiology). You have taught me not only Physiology and the basic methods of medicine, but something even more valuable than that. You have taught how to properly study and efficiently learn, tools that will remain in my toolbox for all the years to come throughout this adventure! This class has shown me the true beauty of life and its mechanisms. This was my first physiology course yet, and now I understand how important this subject is to the world. The thought processes of a skilled doctor are slowly becoming more clear to me. I want to sincerely thank you for all your care, support and enlightenment you have provided for all of us. The difference you have made in our lives is tremendous. Please do let me know if any additional information will aid this process. Thank you again, Dr. Advis!

2017, Romero Juan, To the students reading this: you’re likely on the fence of taking a class taught by the infamous Dr Advis. I’ll help you decide by asking you 2 questions: 1.) Do I truly want to understand whatever it is I'm learning? 2.) Am I willing to work harder for this class than any class I've taken? If the answer is yes to both questions– then sign up. As of now, I've taken 3 courses with Dr. Advis-- I took endocrinology in the Fall 2016, and Neuroendocrinology and Pathophysiology in Spring 2017. In this comment to you, I'll give more of a conceptual background to Dr. Advis' class, but I wrote a more practical comment on how
exactly to do well in these courses. Moving on... all of these courses pushed me to the brink - and now while I graduate from RU, i can't imagine myself NOT having taken these courses. Not necessarily because I wouldn't have been able to learn the information elsewhere-- but because I wouldn't have learned how to learn until it was likely too late. Dr. Advis realizes that the things that he teaches in the classroom will probably be forgotten. But that's okay because that was never his real goal in the first place. Dr. Advis wants you realize that learning isn't arbitrarily memorizing facts on a page, and regurgitating them on some test, just to be forgotten a week later. Learning is this beautiful process whereby you have a framework and new information is neatly placed among everything else you've learned, linked and embedded in the meshwork of everything else. Practically, doing well in Dr. Advis' class just requires 2 things -- a willingness to let go of preconceived notion about education, and a relentless dedication to your studies. With those 2 things you can't fail.

2017, Netrebov Victoria, Looking back at this semester, this Neuroendocrinology class was the most challenging out of the six courses that I was taking, especially since the majority of the information was new to me. To succeed in answering the challenging questions required a solid foundation of essential background information, since I was lacking in this, reading a paper that may have taken an hour turned into at least 3-4 hrs, because I would have to do further research in understanding a term or function of a specific function of the brain. As the semester progressed I was able to integrate information together and find connections between regions of the brain. Having worked in a research lab and taken intensive laboratory coursework taught me how to find this information and dissect a paper to obtain the critical information. I believe I would have succeeded more if I had taken previous coursework in endocrinology or neurology as it would have saved me ample time in getting basic understanding. Overall, this class has taught me that with a yearn to learn and succeed, no subject is too difficult to understand.

2017, Soliman Adam, There are a number of things you want to keep in mind when approaching the Pathophysiology class. The number one thing you want to do is to be well versed in endocrinology. Recognizing hormones, their function(s), where they are secreted and where they target are going to be key elements in understanding pathology. Knowing the signs and symptoms are elementary steps and are secondary to knowing how any one disease progresses. The most important questions to guide you are "why?" and "how?". My advice: identify the body system of the chapter you're working on and make a list of essential components of that system before you discuss the pathology involved. This requires you to already understand normal functioning. The textbook is definitely a useful resource but you will want to supplement it with additional reading. There are also a number of Youtube channels that were very useful (Armando Hasudungan and Khan Academy). Wikipedia also proves its utility in providing hyperlinks to other related topics and terms you may be unfamiliar with. Keep in mind that these sources still have their limitations, they will not cover everything you need to know but they will certainly help as long as you pace yourself and organize your notes. Whenever you run into a detail you don't fully understand, make it a point to identify why you don't understand it. Don't waste time being intimidated by the course, the material is very manageable. It is certainly demanding but it gets you to actively think. Memorization is undoubtedly important, but it will not get you anywhere without understanding. I enjoyed the class and if you are passionate about medicine or about how the human body works, I'm sure you will too. Good luck!

2017, Riddi Jain, I took this Animal Reproduction course thinking that it would be an easy course to take with my heavy schedule. However, I was highly mistaken as on the first day of the class, I realized this course was probably one of my hard courses. Gradually through the semester I realized that this hard course was worth every effort. I realized that my understanding skills significantly developed at the end of the semester. Until I had taken this course, my idea about studying was more based on memorizing facts, as my other courses
demanded it. Conversely, this course demanded deep understanding of basic concepts. Then I realized that it was not the course that was tough, rather my understanding of concepts was poor. I started to comprehend things in a much better way after taking this course. The exams were not on how much a person memorized or learnt rather it was about how well a person understood the basic concepts. This course gave me an insight on what understanding of concepts is like and trust me things become so much easier once you understand what is happening and learning is fun! My advice would be to put in efforts on understanding, trust me it is worth it!!

2017, McLellan Rebekkah, On the first day of Dr. Advis's Animal Reproduction class I thought "wow I have to get out of here". But I stuck with it because I like a challenge. Dr. Advis will push you. He will push you to actually think and understand things, not memorize them. I am currently still learning how to do this and there is less than a week left of class. Regardless, Dr. Advis is definitely one of the best professors I have ever had. His willingness to help you when you don't understand or are panicking because the recitation questions are due, is astonishing. Not many professors make as much time for their students as Dr. Advis does. If I could give you a couple pieces of advice it would be:  1. stop trying to memorize everything, its going to get you no where and you'll be screwed come exam time;  2. Keep up with recitation questions even though you think they are stupid or a pain in the ass;  3. If you have no idea what the hell Dr. Advis is talking about and are lost, ASK HIM; and  4. Go to office hours to keep up with the recitation questions and with anything you don't understand. Dr. Advis is willing to put in as much effort and sometimes even more than we as students are. It's not going to be easy, but it'll be worth it.

2017, Allen George, I took your Systems Physiology class this past summer and your teaching method has exponentially made me a better learner and critical thinking. Starting to study for the MCAT I can see just how useful your technique of compiling information in order to form a big picture and than being able to pull smaller details from the big picture has been beyond useful to me.

2016, Romero Juan, If you're reading this, you are probably considering taking Dr. Advis' Endocrinology class. I forewarn you: Dr. Advis' courses are not for the faint of heart, they're not for those looking for the coveted 'easy A', and they're not for those who don't have a sincere desire to learn. If you're a student who appreciates a challenge and wants to truly understand how physics, chemistry, biochemistry, biology all converge into the beauty that is physiology-- Dr. Advis' classes are for you. Dr. Advis will push you to learn material, and will not simply give you regurgitated information for you to memorize. Thus, if you come to him knowing nothing, you will only leave frustrated. However, if you come to him with some understanding and confusion Dr. Advis will guide your already existent knowledge, to a useful framework for later understanding. Now, with that out of the way-- let me give you some insights that I've gained throughout taking Dr. Advis' courses:  1. Do not try to memorize your way out of the course-- that isn't learning. Think of learning as a house. A house is not a set of isolated and fragmented rooms. In a house, everything connects to everything else. To succeed in Dr. Advis' courses you will need to connect everything you known to everything you will learn. The bad thing about this is that it oftentimes isn't what we're accustomed to. The good thing is about it is that whatever you've learned will stick with you for a long time;  2. Find a fountain of knowledge you will learn from. Some people enjoy reading text books, some people enjoy reading scientific reviews, some people enjoy wikipedia, some people enjoy YouTube videos--whatever it is, find something to learn from. Dr. Advis' lectures will not, I repeat, will not, be enough for you to learn and truly integrate the presented information. That being said, Dr. Advis' lectures provide a useful framework for beginning to understand the material. So it is advised to go to class. Some of my best physiology 'Ohhhhh..' moments were in the front row of his class. To further my understanding, I used the assigned textbook, along with YouTube videos on relevant topics;  3. By now you've heard about Dr. Advis' evil recitations. I'll be blunt;
they're easily the hardest part of the course. Recitations are where passive learning stops, and active learning begins. This is where you will begin to use what you've learned and start putting the pieces together in a concise but dense document. Here's how you will do well in the recitations: go through a given week's material, and have it generally understood. Then, answer the recitation in a way that sounds right to you. After that, go to Dr. Advis’s office hours--but let me warn you--Dr. Advis will probably shoot you down for every answer you give. He will tell you that you aren't answering his question, that you're being verbose. It's OKAY. This is a part of the learning process. Recitations are almost unnatural because it is not how we've been taught to think. But over time, you will get better. Dr. Advis will always find something wrong with your recitation, but the important thing is that you improve each and every week. Remember, your recitation will never be perfect. It isn't an assignment to get a 100 on--it's an assignment that will get you to think, so that when it comes time to his exams--they're easy.

Finally, after Dr. Advis' course, you will be a far more independent thinker. You will have problem solving skills, and will have a far deeper understanding of physiology. If you come in with the right mindset, Dr. Advis' course will likely be your favorite Rutgers course. GOOD LUCK!

2016, Ferrante Mike, At the time of writing this I’m currently enrolled in Dr. Advis’ Fall Endocrinology class (2016). I currently TA for him for Integrative Physiology, I previously TA’d for him this past summer (2016) for systems physiology, and will be TAing for him this coming spring (2017) for Pathophysiology. I realize this is lengthy but if you are taking the time to read this, you'll receive a first-hand account of the art of science that Dr. Advis has shared with me. I met Dr. Advis in Spring 2016 in his pathophysiology course. I registered for it because it sounded like an interesting topic and seemed like an excellent follow-up to Systems Physiology from the fall (2015). When I told some friends who the professor was, I received all the horror stories about how impossible his classes were and how I’d never get an A. Rather than getting onto webreg to quickly drop and find another elective, I saw this as a challenge and came into the spring ready to work. From day one Dr. Advis stressed the importance and power of conceptualizing material rather than getting bogged down in memorization of tiny details. As we dove into the material, I quickly realized the challenge ahead but would soon learn the beauty in his methods. Pathophysiology was one of my favorite classes at Rutgers. After the first few lectures, every single lecture consisted of continuous scrutiny of case studies. The success in this came from what Dr. Advis asked of us: He wouldn’t accept a simple diagnosis. In fact, he barely cared if we remembered the name of the pathology. What he wanted was for us to tell a story. Put the pieces together: You have a patient with difficulty breathing. Why? What, in terms of physiology, is causing this difficulty breathing? Where can the problem be? How did it get there in the first place? What other signs & symptoms in the case study point to what you believe is the underlying problem? Answering all these questions leads you to put a story together in your head and shows you what you know, but more importantly what you don’t know (and need to review on your own). This may sound intimidating at first, but if you plan to continue onto any sort of career in the medical field or hard sciences, being able to take the science and make a simple story line out of it makes the monstrosity that is biochemistry, physiology, pathology, etc. into a children’s novel that you’ll never forget. As Dr. Advis always told us: “Explain the physiology like you would to a little kid. If you can’t do that, then you don’t understand it.” A patient comes to your ER complaining of difficulty breathing when going up the stairs. A CT scan reveals multiple thrombo-emboli stuck in superior branch of the right pulmonary artery. If, when the patient asks you, “how did a blood clot get in my lungs and why am I having trouble walking around?”, your story starts with ‘The little deep vein thrombosis that could’, you’ve mastered the art.

2016, Cheikhali Rana, To be honest, this Integrative Physiology class is not an easy class. My first piece of advice to students taking this class would be do not fall behind! The most important thing is to study daily, because there is too much things to learn right before the exam. Dr Advis always say he is trying to force you to think, do not let that scare you. It is very important to think critically and not memorize. You may not think that way now, but if you are
trying to get into Med school, dental school, etc. then his way is the way you should be studying. Once you understand the big picture, you will find it so much easier and the material will stay in your head. When I first started, I hated studying for this class so much, I hated attending class and I hated everything about this class. When I changed the way I was studying I began to find it more enjoyable and my grade improved as well. Next thing, RECITATIONS!! We all hate them, and most of us, like me, keep them until the end. Recitations are not as bad as you actually think they are, they are not hard but we chose to make them that way. Toward the end of the semester was when I realized their importance. They really test your knowledge and summarize everything you have learned, so make sure to do them before exams! Did I like this class? Probably not, but I definitely do not regret taking it because I got so much out of it and Dr Advis really taught me how to study properly and I know that this will help me greatly later on down the road.

2016, Altavilla John, My advice would be to not sweat the small stuff. Everything that’s on the Physiology exam Dr. Advis goes over in lecture, and contrary to some people’s beliefs his exams are actually very fair, as 99% of what is on the exam was gone over in class. What makes his exams challenging is that every question requires a great deal of critical thinking, and a deep understanding of the material. You should definitely get the book (I bought it for $20 on Amazon so it isn’t that expensive) but use the book to supplement what is covered in class, as there are a lot of insignificant details in it that you will go crazy if you try and memorize. My last bit of advice is to not wait until the last week to do your recitations. Even if you have no idea what you’re doing give it your best shot, as it will save you a lot of pain in the long run. If you’re completely lost go to Dr. Advis’s office hours. He won’t give you the answers but he will help you to understand what he’s looking for and if you’re on the right track.

2016, Umutesi Ruranga, Before you begin taking a course with Dr. Advis you should be prepared to push yourself beyond your previous expectations. If there is one thing you will be reminded of in this class, it is why you are interested in Physiology. No matter what profession you choose to go into, Dr. Advis will teach you physiology in a way so that you will remember it for life. You will find yourself listening to your heart beating and remembering learning about the SA node and automaticity. The point is that this class is a lot of hard work, but the work pays off and offers a unique reward. That reward is that you will truly learn about physiology and be able to incorporate that knowledge into your lifestyle and memory for the long term. Dr. Advis is an amazing educator who really cares about his students and the process of learning not memorizing.

2016, Kapadia Krishna, Systems Physiology with Dr. Advis is a very different experience. I took this course over the summer and it was quite challenging because of the time span and a lot of information to know. However, I learned in professor Advis’s class how to take the big picture of a topic and break it down in to ways I personally can understand information. It is impossible to memorize everything in this class and frankly it is completely futile when it comes to exams. First off, you must have an open mind when you take this class with Advis. You will be amazed how much you can learn by utilizing your own tricks to remember important information. I personally have experienced active learning in this class, which was not only beneficial for this class, but also for the rest of my classes. Also, you must make the time to study the material nothing should be left last minute, study everyday and use other sources to help questions that may arise while studying. Overall, you will learn how to study, comprehension, and to think.

2016, Timenova Irina, Endocrinology is a very interesting, rich and useful course that will teach you all the means by which an organism maintains a constant internal environment in order to survive and reproduce. It is, indeed, a tough course. You will need, maybe for the first time, learn how to connect pieces together, because endocrine system works as a network. "Gossiping system" - as Dr. Advis likes to refer to it. I encourage you to attend each lecture and listen carefully to EVERYTHING that Professor says, all his jokes are connected to
the material being presented. If possible have a Physiology book handy, as you will need to refer to it a lot (I used "Human Physiology", Silverthorn) A big part of the grade is Recitations, which for lots of my classmates seemed to be the most stressful part. Therefore, PLEASE, start to do them early on. Moreover, submit drafts as directed, if you want to succeed - it will give you a chance to analyze them through, so each previous one can aid in doing the next. Provided a good amount of time devoted to the course, it is a manageable (will stress again - interesting) subject.

2016, Fitzgerald Dylan, The Book is king. Make sure you read and outline the Physiology book with a clear understanding of all the topics. Lectures and slides should be a secondary resource as a way of reviewing book material. Just as Advis says you must teach yourself and he can help clarify anything you are confused about, but don't expect him to teach you the material because that is your job.

2016, Hyunwoo Jeong, This Physiology class is extremely challenging but interesting. You need to read the textbook and work on the recitation. Go for help with Dr. Advis and let him see you working hard. The amount of work you put in is sort of correlative with your grade. Luck is definitely part of the game. Most Important: READ THE TEXTBOOK!

2016, HoSung Rhyu, Systems Physiology with Dr. Advis is definitely the best science class that I have taken at Rutgers so far. So listen to what he tells you to do because that will get you a good grade with hard work you put into the class. He will tell you to read the textbook so read the textbook. I recommend reading everything from the textbook if you have enough time because the textbook for this class actually helps you understand human physiology and gives you a "big picture" Dr. Advis asks you to have. Reading the textbook is the best way to approach this class, but you still need to go to class because he will tell you what is important from each chapter. Also, definitely answer every single question that he reads out to you during review lecture because it will save you so much time preparing for the exam. I hope you guys can benefit from this class like I did.

2016, Dragun Linda, My best advice to get through Summer Systems Physiology is read before lecture. Find the time to read the summary at the end of the chapters, so at least you are familiar with the material before it is taught. I would also suggest forming a study group early on. Just simply explaining out loud helps you when it comes to the test. Also diagrams are helpful, even small pictures to help remember little details about a system or the way something is connected in the body. You will be challenged in this class, no doubt! But it is how you handle it that will get you through it and understand it for the long term. Dr. Advis will challenge you to think through a big picture, and if you learn how to do this earlier than later, that will most definitely help!

2016, Lu Philips, First off this Physiology class, you need to read the textbook. Once you read the textbook, the lectures in class will connect clearly. Also, he will always allow you to record him in class, please take advantage of this, if you have a hard time understanding the material in the class.

2016, Odzelashvili Amiran, There is no doubt that this Physiology course is an extremely difficult course. As Dr. Advis preaches from day one, do NOT memorize anything is this class! Understand the concepts and slowly put everything in a bigger picture. Imagine every lecture as a piece to an enormous puzzle. Read before going into the lecture and read after the lecture. Use the book for reading or use any source on the Internet as long as it's correct. After each exam, don't think that everything from chapter 1 won't appear on the final exam. Take your time with this class and put in the work, its the only way to earn a good grade.

2016, Kubati Arlinda, If you are taking Systems Physiology over the summer,
be prepared to work very hard and sacrifice a lot of your social life to study, especially if you are also working while taking this class. Always read the book before class so you can understand the lectures better. Understanding "punch lines" is crucial but do not forget about all the little details as well. Make sure you never fall behind, go to lectures, stay for the voluntary recitation, and study every day! You will learn a lot in this class and in the end it will all be worth it!

2016, Xiao Kevin, You should not remember what happened rather you should try linking what happens to what results. (System Physiology).

2016, Alphosus Andrea, 1.) Don't get discouraged; 2.) Try to read the book quickly, or at least stick to the most important parts of the book so that you have enough time to study before the test; 3.) Focus on the figures, especially the ones that are discussed in lecture; 4.) Go to recitation, especially the ones right before the test. (System Physiology).

2016, Medrano Jose, Everyone will tell you Dr. Advis's Physiology class is super hard, and to read the book, and to do the questions, and to record his lectures. And they are all right! You should do all these things! At the end of the day, no one likes to invest so much time into studying and then achieving a bad grade on the test. We've all been there. So if I could offer any advice, I think it would be to try reciting the material to your friends. For me, this was the fastest and easiest way for me to identify what I did and didn't know. I get extreme anxiety on exams, and sometimes I blank out very easily. When I'm studying, I think my brain remembers that stress and it makes it harder to retain the information. But when you are casually reciting information, your brain doesn't realize it's studying but just reviewing information. Sure, writing things down, making charts and diagrams help you remember things, but once you've created the chart you're likely to just look at it again and not necessarily re-create it every time. This is why reciting the info helps because you have to re-create the circle every single time. Also, your best bet is to not miss any details by reading all of the chapters he suggests. That's all, GOOD LUCK.

2016, Venglinski Zhenya, Read chapters ahead of a lecture or at least the summary of them. It is not a great combination if you have a job and are taking this course. Trust me, you will need extra hours for reading! Good Luck. (System Physiology).

2016, Allen George, Professor Advis is a good professor who teaches you how to learn. Systems Physiology is not an easy class and there's a lot of things to understand, but if you listen to Professor Advis and focus on the bigger picture it becomes easier to remember the smaller details as you go through the circle. You can really learn a lot about the human body and how all the body systems come together from this class. Big tip: Read the chapters before class, it'll help a lot.

2016, Teixeira Kristen, My advice to you is to not fall behind. This is such a short and intense course that you cannot afford to skip lecture, wait until the weekend to study, or not make the course your priority. Use lecture as a way for Professor Advis to outline the Physiology information you need to master. Concentrate on the main topics, watch Youtube videos on areas you do not understand, and make sure you can tell the story that each figure in the textbook is trying to tell you. The class goes by so fast but it is rewarding.

2016, Straley Christopher, After complete long the majority of the summer Systems Physiology course I have come to understand a couple of things that will greatly increase success in your efforts to understand the material: First, I'd immediately recommend squiriesing the latest hardcover textbook. You may either rent, buy new or used. No matter what it is key that you follow the same material that Dr. Advis is teaching in class. And from personal experience using multiple versions of Systems Physiology textbooks I can say with confidence that the newest edition written by Silverthorn is the absolute best source of knowledge. Second, I'd
recommend clearing your schedule so that you can better focus on the class. Systems Physiology is one of the more difficult classes I've taken here at Rutgers University and it could prove to be critical to your success that you have adequate time and leisure to actually put the time and effort into your studies. Finally, I would suggest that studying and learning the material in this course would be easier if you were accompanied by a tutor or a study group. I have had a couple of groups to study with and they have proved to be extremely beneficial. Another person's perspective may be exactly what you need to better comprehend something.

2016, Mullens Jacquelyn, 1. Go to lecture; 2. read the book before class; 3. talk to Professor Advis if you are having trouble, he is very willing to help; 4. Prepare, prepare, prepare! (System Physiology).

2016, Flood Paulette, Always make sure you try to keep up with the textbook readings. It really helps you to better understand the material in class and you will not have to try to read all of the chapters for an exam the weekend before (it's not fun). You should also write your own notes because Professor Advis' notes from lecture will not help to fully prepare you for an exam. If you can and are willing to I suggest forming a study group with some of your classmates. Study groups help to review the material and people may understand and be able to explain topic you may not fully understand. Lastly don’t be afraid to ask questions if you don’t understand something, there are plenty of TAs that are willing to help you. (System Physiology).

2016, Cho Jane, 1. Preparing for lecture and knowing what Dr. Advis will be presenting during the lecture is very important. Sitting in lecture having no idea what he is even talking about is a waste of your own time. Reading the textbook chapter beforehand is vital and makes lecture so much easier to understand; 2. Reading the textbook and actually understanding the images rather than memorizing is KEY. Redraw structures and make sure what you are reading makes sense!; 3. Teach a friend what you know and have them teach you what he/she knows. If you can teach the material and say a process out loud, it means you understand the material, AND it stays in your head better!; 6. If I could rewind 6 weeks, I would in a heartbeat because I would have followed my own advice, so now that you guys have this advice that you should DEFINITELY follow, good luck to you all! (System Physiology).

2016, Ribot Daphne, A few do's & do not's when taking systems physiology:
Do's: 1. Read before lecture. If you can't read it all before class at least read the text summaries at the end of each chapter; 2. Go to class, stay the whole time, it helps; 3. Relate what your reading to yourself if possible. It makes the information more relatable and retainable; 4. Write steps to pathways on post-its so you can move the information around, as well as add to it.
Don't's: 1. Skip class to catch up, you'll just fall more behind; 2. rely solely on the information in the textbook, there is way too much, and the professor likes to highlight certain concepts. Save yourself the time; 3. If you take this course in the summer, its fast and will take up a lot of your time. Be mindful and try to keep a somewhat free schedule to stay on top of things. Sincerely, a student who wish she knew what she was getting into. Coda, Dr. Advis, I would like to say it has been a pleasure taking this class, but I'd be lying. You were right to warn us of the difficulty of the course, however you were also correct when you said it would make us think differently about the information presented to us. In that sense I have learned a lot, and I thank you for that. I hope you enjoy the rest of the summer, and have a great fall semester! (System Physiology).

2016, Davis Kaitlyn, If you want to succeed in this course, or any course for that matter, what you need to do is look at the bigger picture. Just as Dr. Advis has I'm sure stated many times, it is not beneficial for you to memorize every small detail that is written in your textbook. If you understand the general message of what is being said, you will find yourself doing much better on exams and such. For me personally, I found it extremely beneficial to watch videos to help me understand the main concepts. I would go through the professor's slides, find
the most important discussions, and find relevant videos that thoroughly explained these things. I would then go to class and the professor's lecture would help clarify the videos I watched prior. Listen to your professor and go to reviews / recitations. **Don't be afraid to ask questions.** You will do absolutely fine if you do these things; I promise you. (System Physiology).

2016, Chung Woon Shin, I would like to advice your future physiology students to really read the textbook before attending the lecture. Remember, repetition is the key when it comes to a course like this. It is important for you to know the materials or at least to get familiar with the topics and the terminologies before attending the lecture so that it is easier for you to follow when Dr. Advis is lecturing. Also, do not underestimate the recitations. Although the recitations are not mandatory, I highly recommend students to stay and attend those recitations. You may think that you know all the materials, but the truth is that you may miss out some important things that Dr. Advis explains about in class. Therefore, instead of treating the recitation provided as an opportunity for students to ask questions, think of it as a session that helps you to narrow down what you should really focus on when you are studying for the exams.

2016, His Catherine, This system physiology class is not about memorization. I took this class in the Fall before. I tried to memorize every single little details, but it didn't work. Therefore, I'm taking this class the second times. This time, I read the assigned chapters and watch some Youtube videos before the lectures to understand what the lecture is going to be talking about. In the lecture, Dr. Advis is going to talk about the big pictures, important concepts, and how does it related to other systems. It is important to make connections between systems to systems. After all, it's all about the cycles. And if you have time, just go to the recitation to ask questions or listen to what other students ask. It will help you understand more and learn some interesting facts. The big pictures will stay in your head once you understand. As Dr. Advis says, memorization will not get you through this class. Since I don't like memorization too, I like this class. It is an interesting class that help you understand and think about how your body functions. Have fun and good luck in the class!!

2016, Imitiaz Mehak, The key to succeed in this class is to follow Dr. Advis lectures and read the textbook. The important thing is to pay more attention to the big picture and understand that, you will easily get the tiny information related to that big picture. Also go to his recitation it is really helpful. (System Physiology).

2016, Cardenas Geraldine, First things first, skim the physiology chapters before each lecture and pay extra attention to the pictures in the book. The book has great illustrations with step-by-step explanations of what the picture is talking about. Also for every chapter, there is a chapter summary at the end along with topics and subtopics summaries. Read those and even write them down for future use (ex: when studying for the exam). During the lecture, really try to pay attention to what professor Advis is saying and because you have skinned or read the chapter beforehand, the material should make more sense to you. I strongly recommend you to attend recitation because the TA and the professor will help you a lot! **With that in mind,** this class is all about having a BIG picture of how all these systems "gossip" with one another. The exams are tough, the class in general is very tough but staying on tract with the syllabus is key to success because trying to catch up with all the material that will be thrown at you is nearly impossible. Memorizing works to a certain extent. If you plan on memorizing the book, you should really consider taking another class. Memorizing hormones helps a lot but making connections and thinking hard on how the material fits into the big picture will help you understand the material on another level. Most likely, you'll remember it forever. For example, when you ask the professor or the TAs a question they will most likely answer to you in a "why?" or "how?". They won't give you the answer right away (because you will most likely memorize that answer which will NOT help you for the exams) because they want you to THINK and be able to deduce the material. So remember, start big and then go to the little details (memorizing the details will only get you so
Finally, ask all the questions you need to ask to understand what you are having troubles with. Don't be like me who thought asking some questions would make me sound stupid because that was stupid. Asking questions is literally interacting one-on-one with the material, which is different than just reading the book by yourself. When you sit down to study for this class, put ALL DISTRACTIONS away, that being your phone, Netflix, Hulu, etc. This is a six-week course and it will fly by so fast that any distractions will cost you from getting an A. This class will, at some point, frustrate you or make you want to quit, but keep going at it! Don't be afraid of the professor when you want to ask him a question because he is really nice and really wants you to think hard! That thinking process will help you in the future, like in medical school or graduate school or vet school. Hope this helps and remember you can do it!

2016, Kraft Luke, Go to every class (DO NOT skip or miss class); Stay after for each recitation; Ask questions (this is the point of recitation); Look over the material / slides before coming to class; Do not wait for the last minute to start to study, it is never to early to start to study; Know the prerequisite material (This stuff is key, especially for the first exam); Listen/Understand Dr. Advis’s jokes, stories, and scenarios (they are key punchlines for some of the material); Do not focus on small details, learn the large concept and then look at details (understanding the large concept is key); Study, Study, Study (everyday); There is a lot of information, don’t kill yourself trying to understand all the little things, learn the key concepts; Learn the information, do not memorize; Do not freak out if you get a bad grade, just try harder (you’ll do better the next exam); The 1st exam is a “slap in the face”, the 2nd is the hardest (but you will do better than the 1st), and the 3rd is the “easiest”; Most important thing to do before an exam is to be confident, get some sleep, and eat breakfast; Finally, my last piece of advice: Be afraid, be very afraid (because then you'll study more and harder). (System Physiology).

2016, Jung Jiy, Greetings, future system physiology students! I hope you read this now before you enter the very first lecture of physiology. It is always good to know what is coming at your way, right? There are few things I would like to emphasize to pass this course. BE PREPARED. You should make sure that you read each chapters before you come to the lecture, and be fully understood by end of the lecture. If not, stay up for the recitation. If you have any question on your mind, don’t let it loose. It is purely your responsibility to understand all concepts and circles. Once you have a question after reading all the chapters, seek TAs for help. Remember, the test is cumulative. You need to know the previous material for the second and third test. Well, I think it is almost impossible to understand the new materials without knowing the previous ones. Do not try to catch up all the lectures. Again, DO NOT TRY TO CATCH UP ALL THE LECTURES. Hope you have a great time with this course, and have a fun with Dr. Advis. Good Luck!

2016, Gonzalez Michelle, You will love this course if you make sure you COMPREHEND, not memorize, everything you are reading. Do not advance onto the following chapter until you do! As the course progresses, everything you have learned will be integrated. Be mentally prepared to learn and understand the basics, yet challenging, physiology of our bodies. (System Physiology).

2016, Huynh Franco, All the rumors you have heard about this physiology course are true. It is difficult and you will have to apply yourself. With that said, DO NOT go into studying for this course purely memorizing the material. Learn the big punch-lines in order to connect all the concepts together rather than just memorizing small details. There is just way too much material to memorize and will not do you any good if you cannot thread everything together. Remember, the body and its functions work as a system and you must keep that in mind. How does one concept affect the rest of the system as a whole? Everything has a cause and a reaction when it comes to physiology. Be diligent and make sure to study. Good luck!
2016, Moskal Amanda, As a fairly new student to Rutgers, I became extremely fearful of this physiology class because of all the rumors. I decided to take it for the first time over the summer with Dr. Advis because of comments from previous students. The class is as difficult as expected and you will need to put a lot of time into studying. Do not take this class with another class or internship over the summer. It is very fast pace and you may fall behind very quickly. If you put in the work, the class will pay off. Make sure to read the prerequisite chapters before the first day of class! Take advantage of the extra help offered and ask a lot of questions. Dr. Advis means well and teaches the material so you are forced to learn it and not memorize. Again, focus only on this class for 6 weeks, read the chapters before lecture, and reach for help if you need it. If you decided to take on this challenge, Good luck!!!

2016, Cote Roland, If I were to give any advice to future physiology students, I would tell them to read the textbook and the lecture slides before coming to class. It makes the lecture easier to understand when I have a base knowledge of what it going to be talked about. If future students are taking the summer session, they should really know that the course flies by and they must be on their toes and work on the class every day. Also, ask a lot of questions, there are no dumb questions. You will have to work for your answers, but it is completely worth it.

2016, Cornell Julianne, If you will be taking systems physiology with Professor Advis, I can not stress enough the importance of attending lectures. Dr. Advis gives relatable examples then explains how they are comparable to the material learned in lectures. If you have a question or are confused with material, Advis is very approachable and will explain the material. He wants you to be able to understand the material, not just memorize information. If you only memorize the material, you will not do well in his class. Although attending class is important, you need to purchase the textbook. Every night I would spend several hours reading the textbook and making diagrams or making outlines to help me better understand the material. One thing I regret is not staying for every recitation or going for extra help sessions at night. I only attended a hand full of recitations, but I think I would have a better understanding of some information if I stayed everyday. This not an easy class which is why you need to put in a maximal effort to do well.

2016, Adarkwah Mike, For all students taking Dr. Advis for the first time, BE PREPARED TO DO SOME SERIOUS STUDYING. Systems Physiology in itself is a very challenging course BUT it is less challenging if you have a great professor like Dr. Advis showing you how to approach concepts and thinking for yourself. In order to do well, I advise you come to lecture every day and STAY for recitation because recitation is the best way to get things explained. Also make sure to read the book and rewrite every page you read in as little sentence as possible in your own words. Once you have the concepts of certain mechanisms down, you will be able to understand why the body acts the way it does. All in all, be prepared to put in a lot of work if you plan on doing excellent in this course. And lastly, don't be scared to ask Dr. Advis for help since he is always willing to help.

2016, Kapadia Krishna, Systems Physiology was a very different experience than any other class that I have taken in my life. One of the biggest things I've made my mind open to, is to grasp the big picture in each and every chapter that I have read for the class. Especially it was a six weeks course with lots of material to cover. Once I learned the big picture I can dig deeper in to the smaller information giving me a better understanding. It is a class where you can't memorize everything. The course has taught me how to become your own teacher to learn the material. This is a skill that can be applied to not only this course, but to anywhere I may go in life. The one thing I will do to better improve is make a small group to study with because two plus brains are always better than one. Professor Advis helps facilitate the learning experience by pointing out what is important. He is a good teacher who wants to teach not only what a class consists of, but also a life lesson. You can not memorize everything in life.
2016, Wang Hongyu, At the beginning of Dr. Advis’ course, you may find him pushing you all the time and making you think in a circle. Really do what he tells you because it is extremely helpful not only for the future lectures of this course, but also your way of thinking. For me specifically, thinking about the circle automatically establishes a way a logic thinking in my mind and makes me calm when confronting various situations. Several suggestions: First, if he tells you to do something, do it. Second, read the chapter materials before going to lectures. Third, review (at least go thru the slides) after each lecture. Also, try to remember what he talks about, especially the jokes or stories that are not related to the course material, because you will find those things really helpful in your future courses and careers. (System Physiology).

2016, Pace Jennifer, When people say this system physiology class is hard, do not take it lightly, this class is incredibly difficult! But with that being said, don't let that scare you, because you can do well if you are motivated and put time into learning the material. Although Dr. Advis and the TAs stress how you should study for the class, keep in mind what works best for you! I was told to read the chapters before the lecture and it would help tremendously. After I learned from the first exam, it wasn't the best studying technique for me. Take the TAs suggested study methods into consideration but also think about what has worked for you in the past! The best thing you will get from this class (besides the obvious knowledge of physiology) is how to understand material. You'll do best in this class understanding material rather than being able to repeat material verbatim! Good luck!

2016, Lee Joon, As an Organic Chemistry TA, I will admit that Dr. Advis’ class poses a unique challenge: memorization will not be the only key to success! To succeed in this course is to understand the course. If you plan on memorizing, you’ll find yourselves stuck memorizing tons of information. Understand the concepts do all the work for you. Read the book, attend lecture, read again and try to make the information easier to understand on your own. Do not play catch up the entire course! Stay ahead! . (System Physiology).

2016, Minassian Greg, If you are reading this you are probably enrolled in one of Dr. Advis’s courses. I would be lying to you if I said the Neuroendocrinology course is easy, its far from it. You will have to work very hard for your grade, especially if you want to get an A, but you will learn a lot in the process. This neuroendocrinology course is quite different from any other course I took in college. Dr. Advis tries to teach you a different way of thinking that can be very helpful if you learn to apply it to your studies. Dr. Advis is always willing to help and this is something that you should definitely take advantage of if you would like to do well in the course. I took neuroendocrinology with Dr. Advis, and if you decide to take this course my advice to you is to thoroughly review what you learned in physiology and make sure to go in for office hours if you are ever confused about something. One of the biggest pieces of advice I can give you is to start studying and working on the material early, don't wait until a few days before the assignment is due to start thinking about it because this is not only signing up for tons of stress, but you'll also be cheating yourself out of learning all that you possibly can. The way this course is set up you will learn as much as you allow yourself to, if you try to do enough just to get by you probably won’t learn much and your grade will reflect that, but if you spend tons of time truly trying to understand every aspect related to the questions by digging through endless research papers (and I mean ENDLESS) you will learn a lot. In the end I can say that Dr. Advis has showed me a different way of looking at things that I believe will help me in the future.

2016, Feldman Sarah, This Neuroendocrinology class is not going to be easy. A lot of people hate Advis even I’ve heard people saying not to take his classes. He is going to make you work hard, but it is worth it. You feel like you actually learn something in his class for once. It will be hard to change how you learn, but honestly it’s worth it.
2016, Goldstein Michael, Dr. Advis's courses are some of the most difficult, yet most rewarding, courses you will take at Rutgers University. The purpose of the course is not to directly teach you physiology, but rather to teach you how to learn physiology. If you have already taken systems physiology with him, you already know that memorizing physiological mechanisms and pathways does not work, or at least not for a long period of time. Dr. Advis will teach you how to learn physiology in a way that will give you a working knowledge of physiology, instead of memorizing facts. Let me be clear about something, Dr. Advis will frustrate you beyond belief, and this is a good thing. However, he will never give up on trying to teach you his style of learning. He always makes himself available for his students and those who consistently attend his office hours succeed. If you are pre-med or pre-vet, it is imperative that you motivate yourself to change your style of learning physiology to Dr. Advis' methods. It has truly made learning physiology much easier to understand. Lastly, the key to success in this Neuroendocrinology course, or science in general, is not being afraid to be wrong. If you are always right, then you will never learn. Failure must occur before success can be reached. I wish you all luck in this class and your future endeavors as scientists.

2016, Estrada Ivan, Hello future Pathophysiology students: You are about to embark on a tremendous journey, one which is both demanding and rewarding. This pathophysiology course will challenge you to think outside your comfort zone. You will be challenged by Dr. Advis constantly as he is not looking for one word answers, instead he wants you to paint a narrative of how you reached a particular conclusion. You will become all too familiar with his "explain it like you would to a child" challenge, and you will understand that mastery of a topic can be tested by this simple challenge. Because there is a great deal of material covered in this class it is critical you not only go to class but also put in some time outside the classroom by reviewing physiology. In order to do well in this class this is a must. In the end the skill we are trying to develop in this pathophysiology class is critical thinking. Approaching physiology and pathophysiology though rote memorization is impractical, the best way to understand these topics is by understanding the big picture. I would urge you to be proactive in the class discussions, make a case for what you think and defend it as best you can. You will get out of this class what you put into it. So go out there, work hard, and enjoy the class, this is pretty interesting stuff after all. P.S.- Go out and try pâté de foie gras... It'll make sense by the end of the semester.

2016, Kong Christopher, I would start by saying that this Pathophysiology course is by no means an easy one, but surely rewarding. Don't concentrate too much about grades, but really focus on learning how to study the material and more importantly, developing your deductive reasoning skills. I'd suggest to definitely review basic physiology or this pathophysiology class will be very difficult to succeed in. I found using outside resources through youtube and other physiology sites useful as they breakdown the systems into more digestible parts. Nonetheless, I really believe I got a taste of what it will be like to go through medical school / graduate school course through this class, and will open your eyes to how much farther you still have to go. Like anything in life, this class is the same - You get as much as you put in. You don't often have the opportunity to be in a class as small and personal as this one at Rutgers, so take advantage of it and actively participate. I wish you all the best of luck and hope this course benefits you as much as it did me.

2015, Sidra Zia, Brace yourself- if you don't have the time to strive for excellency, whatever it takes, Professor Advis' classes aren't for you. So toughen up and hit 'register', you'll be fine if you want to be. Here's a few tips that'll save you from a nervous breakdown before an endocrinology exam: 1) Study and understand the material every day and use different resources to do it. Read and absorb the powerpoint punchlines, refer to the textbook for more detail, use wikipedia and online papers. A huge portion of this class is self-taught, which is why you need to be able to learn the material from a variety of viewpoints in order to correctly understand its role. 2) Don't be scared of Professor Advis. When he asks you 'why?' after
every response that you give, DO NOT be afraid to say the wrong answer. Don't let the pressure get to you- you might just end up in a pile of tears. We are all eternal students of knowledge, and steadfastness and determination are what separate the weak from the strong. Study hard and answer as best you can, because it is worse when you say 'I don't know'. This means you need to know your stuff before going to office hours. And 3) Learn for the sake of learning. Even if you get a bad grade, there's a high probability that by the end of the semester you'll have learned an incredible amount of very useful information. So clarify your intentions and fulfill them. A good doctor/researcher doesn't work for a grade, but for a fruitful and long lasting reward- a skill, a mode of thinking, a right to become more knowledgeable in a subject. We all know a grade doesn't necessarily indicate your level of intellect. So breathe a little, and you'll be fine. Have fun!

2015, Sean Conway,  
Endocrinology has been one of the more challenging and rewarding classes I have taken. Dr. Advis provides the tools for you to learn about the endocrine system rather than simply regurgitate the information. In order to perform well in this course prepare your recitation questions early and review them often. This makes learning the material significantly easier, studying more affective and puts you ahead of the game at the end of the semester. Learn, ask questions and most importantly be diligent.

2015, Sayoung Byun,  
Hello Future Endocrinology Students, Just think about recitation questions and always have it in mind while reading the book, or even studying. Dr. Advis' little jokes and the way he teaches really helps you learn how to study. This is one of the best mechanisms in studying for this course. He's pretty much telling and screaming at you just how to ace the class. Take advantage of everything that he provides because those are his intentions. He wants you to pass and he will provide as much help as long as you give him the effort and care to do the work. Don't even think about doing these problems last minute for they take 2-3 hours to get the rough drafts done. Then the editing takes until they are due. So be prepared with the mentality to do A LOT of work. As long as you give in the effort, he will put in the effort and as much time possible to help you. Good luck!

2015, Louis McGuigan,  
I am typing this at 4:04 AM, three hours before the final recitations are due. My eyes are bleary and painful, my brain has slowed to a crawl, and I feel thoroughly disappointed in myself. The problem isn't that I didn't finish my recitations as well as I would have liked to (although that is certainly true), nor is it that I will have a rough wake-up for my 9:15 tomorrow morning (although I certainly will). The reason I am disappointed in myself is that it is only now that I realize how much these recitations helped me understand the material. By digging deep into the textbook, my notes, and every corner of the Internet, I learned the information more completely and thoroughly than I did all semester. I made the mistake that so many people do, despite the warnings that were given to me, so if you are anything like I was, you will ignore this advice as well, and come the morning your recitations are due you will have same regrets. This is a class where you learn incredible amounts, but it took me too long to realize that most of the learning is what you do on your own.

2015, Shiwei Wu,  
Always keep up with the syllabus and don't be like me. To me the class slides make more sense after reading the textbook, so if you are a slow reader, do it ahead. Wikipedia helps in terms of giving a rough picture of what's happening with that hormone, but the textbook is definitely more detailed and reliable. Draw diagrams and make tables, especially the diagrams, are very useful to visualize the "storyline" better.

2015, Marinos Pylarinos,  
To future Advis masochists: The formula for hardship in Dr. Advis' classes is simple really; what you give is inversely proportional to what you get. Convert the formula, and you see that for success, you get what you give. Therein lies the first lesson. The first 35 words of this message can be condensed into 5 words "you get what you give." This is what Dr. Advis refers to as a punchline. It's a very important tool for learning, and
forces you to understand the material (a phrase you'll become quite familiar with.) The point in this is that you wade through a bunch of details, and extrapolate a simple idea that encompasses all the nitty gritty stuff. You really have to come into this class accepting that you probably don't know as much as you think you do, and allow yourself to think differently and to learn. There's a method to the madness, I assure you. The class will be tough, there's no doubt about it. So if you came in hoping to gobble down a few Powerpoint slides the night before the exam and spit them up the next morning, save yourself the stomach ache and get a refund. However, if you're willing to take on the challenge, test what you can accomplish by putting forth a solid effort, you will be rewarded. I can almost guarantee even if you come away with nothing but hatred for the class, you'll have worked with your fellow students more than you ever have, discussing the material with one another as a means of figuring out what the hell this damn professor is asking, and thus, you will learn. Whether Dr. Advis realizes it or not, he's created a class that not only forces students to think and learn for themselves, but forces them to work together for the same reasons. The class really ends up being as much fun as it is a struggle. Even the stupid jokes somehow get funnier the 10th time around. With all that said, start putting the time and effort in early. PLEASE. Because this class is based so much upon making you think a certain way, it's more or less impossible to figure out how to think, and then learn all the material in the last week. Keep on top of recitations, work with classmates, and utilize as many office hours as you can. Granted, you will never get a straight answer from Dr. Advis, but you will learn what you need in order to be able to answer for yourself, which is really what you needed in the first place. Again, punchline for all this, you get what you give. So give this class hell, and it'll be one hell of a ride, I promise you.

2015, Cynthia Mallory, If you throw an Advis course on your plate, do not expect him to coddle you. This is an upper elective science class, and he is quick to tell you that he will not punish you for poor attendance (judgement) but his tests will. Memorization just doesn't work and the first time you face an exam with hundreds of structures and functions, you'll see that your good memory just doesn't keep up. You can benefit from the integrated way of learning that Dr. Advis models his coursework on. This class taught me how to layer knowledge and build a concrete foundation in the chemistry of the body. This is much more important than getting a B on an exam and immediately forgetting half the answers, and one day you'll thank him. I have a few friends on the med school/vet school route who profess that Dr. Advis is an amazing mentor and because of his class, they are well prepared for the road ahead. I also have a friends who skip classes and are of the C's get degrees mentality. Guess which group adores Advis to this and which group loathes the day they didn't withdrawal? Show up to class. Participate. Dr. Advis won't admonish you for not attending but come on. You (or your parents) are paying to get an education and you can lead a student to a book....but simply smashing your face into it won't help. I've taken two classes with Dr. Advis and I still stand by my comment to the prof in the first week of physiology on why I signed up for another course, "You are terrifying, absolutely, but you are probably one of the best professor's I've ever had". I'm scared silly of this final I'm about to take as I write this out for you future students, but I still stand by it.

2015, Haidar Alhraishawi, This email is for future students who wanna take endocrinology course. This course is really amazing and you will get more knowledge about the endocrinology. If you take this course you should be thinking stuff, not memorizing stuff. You should use the text book. Remember, read the lecture before class to understand well. Also the recitations are not easy, so you have to submit every recitation weekly to get comments from Dr. Advis and then you can edit them ( do that weekly and don't wait until the end of semester). He is very helpful and you should visit him at his office to ask him every thing you don't understand.

2015, Hael Abdulrazeq, Dear Dr. Advis, I was one of those students who were fortunate enough to take your endocrinology course last semester. I must admit that, at the time, I was overwhelmed by the amount of information that was presented in class. I even thought of
dropping the course a few times like some other students did. Regardless, I listened to the advice of former students and learned to adapt to the endless number of slides that we had to study. Now that I'm in medical school, I can also attest to the similarities between your courses and graduate education. The amount of work that we had to do for one exam in endocrinology is worth what we learn in one week in medical school. That being said, I believe the challenge that your course presented was the best kind of warm up for the next stage in my education. Thank you for being so patient and kind to the students who showed interest in the class. I hope you have a wonderful fall semester.

2015, Sanchez-Gonzales Manuel, For any students who are pre-medicine like myself and have aspirations to go to medical school, this endocrinology class is perfect for you. Dr. Advis' dedication is matched only by his effective teaching style. Forget everything you have learned in any of your past science courses, because Dr. Advis teaches you "punchlines" to effectively target content. His emphasis is on conceptualizing the material rather than just simply memorizing details. His constant reminders to envision the material as "circles" that interact with other physiological pathways make endocrinology more manageable than it seems at first glance. The lectures are jammed packed with material and the tests have answer choices that seem complex and challenging. But by remembering the basic concept behind every topic that you are questioned on, you will learn to spot incorrect choices with ease and reinforce your understanding of the course. If medical school is your goal, Dr. Advis will transform your study habits from passive to active, and will ultimately prepare you for the future you are pursuing. I am grateful that I had the opportunity to take Endocrinology, as it allowed me to grow more as a student than in any other course I have taken here at Rutgers.

2015, Frazier Victoria, I began this class a "ready to go attitude" even though I was extremely nervous because of all the rumors and horror I have heard about systems physiology. However, now after six long weeks of hearing Dr. Advis say "its all goes back to the circle" I realize how much I have learned. Dr. Advis' method of teaching is quite unique. His class helped me understand and appreciate integrative concepts. The best advice I can give to future students is to LISTEN to Dr. Advis when he says "do not memorize" and to read lecture material prior to the class.

2015, Logue, Morgan. I hope you all have stopped reading the chapters in the book you've been assigned for tonight's reading, ONLY to stop and read these class comments for insight- because if you're not reading the book yet/right now, you're probably already behind. This class will challenge you, unlike a lot of the other classes you may have taken in the past, whether it be at Rutgers or another University. I know this class challenged me mentally and physically. It started to feel like a full time job, but a really rewarding full time job once material started to "click". I'm not going to sit here and paint any kind of picture or give you any secret hidden keys to success other that to envelope yourself in the material. Take it seriously, understand it, and you will be rewarded. Dr. Advis challenges you to challenge yourself and he does it in a way that physically forces YOU to challenge YOURself. It forces you to submerge yourself in the class topics, but in a way that makes YOU responsible for them, because if you don't get a topic through and through, it will show in your class grade. No ones going to get you through this class, but yourself. I'm an October degree candidate and this is the LAST class I need to graduate from Rutgers and 1. I'm upset that it took me so long to take this class with Dr. Advis (it could have helped me in a few other classes I've taken now before this) and 2. I picked one hell of a way to exit this University-because not only did I learn more than probably any of the other classes here at Rutgers, but I feel as though I actually understand and comprehend topics and am able to draw conclusions based upon an underlying knowledge of topics that may have even seemed unrelated. I will tell you all right now that I'm, personally, writing this before the final and I know I'm not getting an A or a B in the class, due to extenuating circumstances, HOWEVER, it IS possible! I know that I will be leaving this class saying that I: 1. gave it
everything I had, 2. did genuinely learn and understand the material/will leave this class feeling as though I have an awesome foundation for graduate school down the road, and 3. learned a lot about myself and truly did learn to push myself academically, more so than I had in 4 years of my college experience. Best of luck to everyone, if I can do it-I KNOW you all can, too! (seriously).

2015, Amin Bianca, The subject of physiology is very interesting, as it relates to each and every one of us. Although this is my second time taking this course, I personally would advise anyone to take it with Dr. Advis! He will break down the information for his students in such a way that is not only funny and interesting but also in a way that will allow you to make connections within your own life. For anyone thinking of going to medical school, or any health science related field really, will most definitely benefit from this class because let's face it, if you don't know the basis of this material, then you may want to rethink you're decisions of becoming a doctor (Haha! Just kidding!) But in all honesty, this course is structured in such a way that will make you actually want to learn physiology and be able to apply it to anything in life. By doing so, I think many of you will be able to answers questions that you may have asked yourself in regards to the body (i.e. how things are functioning, why you may be feeling the way you are, or what causes certain conditions). Whatever it may be, I would definitely take it with Dr. Advis. It will surely help you in your futures and this course will certainly exceed your expectations. Good luck to all of you.

2015, Byun Sayoung, I know these recitations will look like too much work or something tedious that the professor wants you to do, but it will be the most helpful piece of studying material for the course and future science related courses. It is very efficient for you learn and remember both the hormone's effect and the physiology. This class if very fair for the amount of work you put in. I wish everyone of luck and make sure to do the recitation questions.

2015, Feldman Sarah, I took Endocrinology over the summer and I was scared to take it even after reading past student's testimonies before signing up. Everything they say is true though. The exams are not easy and you do have to put in time to get the grade you want, but if you put in effort and try to understand rather than memorize it will pay off. I thought I would hate this class, but I actually enjoyed it. Advis is one of the best professors I've had at Rutgers. Make sure you do the recitation questions before the exams though they help A LOT. Good luck!

2015, Globerman Samantha, This Endocrinology class is one of the best at Rutgers. Do not listen to the rumors about this class. Yes, it is difficult and yes it takes a lot of time and effort. However, if you put in the hard work, this class will pay off. I know that this class has provided me with a foundation for veterinary school. Also, Dr. Advis is always willing to help and makes himself available a lot. I can definitely say that this was one of the most interesting, engaging classes I have ever taken. I would recommend to future students to read the textbook religiously, go to office hours, ask questions, begin recitations early, and go to class! Dr. Advis is a wonderful professor and he truly cares about the success of his students. He will definitely meet you half way, but you must put in the time and effort to get there. His goal is for students to learn the material and retain the information long-term. Definitely take this class if you are a serious student who is seeking a challenging course that will prepare you for professional school.

2015, Medina Jessica, Dear Future Endocrinology Student: You will probably hate this class after the first failed recitation attempt, but if you find yourself stubborn enough to stick it out and not drop this course you are one of the lucky ones. This class has taught me more than I ever thought I would learn in an undergraduate course. The course material contains by far the most interesting subjects I've ever studied. Dr. Advis has the perfect approach to teaching the course, as well, which is if you want to learn and put in the effort you will understand even the most difficult of concepts. Your success is completely dependent on you so go to every single
office hour you can make it to because Dr. Advis will make it worth your while. Also, for the good of your grade don’t leave the recitation assignments to the last minute. Dr. Advis might seem like a “my way or the highway” type of professor but he’s only this way because his way is ideal for not only learning but preparing you for graduate and medical schools. So don’t drop out because conquering this class was the best thing I’ve ever done.

2015, Abulrazeq Hael, During the first few weeks of this Endocrinology course, I felt completely overwhelmed by the amount of information I thought I needed to memorize. Once I took the first exam, I was able to adjust the way I studied, and understood that the most important part was to understand the general ideas (punchlines) that are illustrated in the lecture slides. Coming to class is definitely essential to succeeding in this course. You’ll save yourself so much time because that's how you know the things you should study for, instead of just relying on reading the textbook without knowing which parts are important and which are trivial.

2015, Livitsanos Evangelia, To the future students of Endocrinology: Firstly, good luck! Endocrinology with Dr. Advis was the most difficult class I’ve taken at Rutgers thus far. If I could go back to the first week of class knowing what I know now, I would get everything done as soon as possible. I would submit the recitations every time they are due so that I could get Dr. Advis’s feedback. Go to every office hour! Dr. Advis is extremely helpful to the students who are willing to learn and show a genuine interest in his class. You will learn an amazing amount of information and it is NOT difficult if you learn how to make connections and understand the material as opposed to memorizing it. Be ready to work for your grade and never depend on the possible curve. Lastly, enjoy the class. There are so many fascinating elements to what you will learn and be able to apply to your own life. Again, good luck.

2015, Kaur Bevneet, Dear Endocrinology Students, START ON THE RECITATION QUESTIONS TODAY, NO JOKE! Prof. Advis is going to mention about doing the recitation answers at least 5 times in every class. The TAs are going to keep stressing on them. So make sure you guys listen and actually get started on them as soon as possible. This course throws a lot of information at you which you will only retain if you take it little by little everyday! Don’t try to cram or memorize the material. It does not work in this class. You have to be consistent with your studying, and again...those recitation questions! Don’t get lazy with them. A lot of help is being offered in and outside the classroom. Make sure you take advantage of that. Good Luck!

2015, Jesse Tecson, My name is Gabe and this is what I learned from this endocrinology class. Though it is self evident for every class, you shouldn't put studying or recitations to the last minute, but as college students, you should be masters at this. Also, come into this class without any knowledge. What I mean is, do not be arrogant, and have a spirit to learn new things. You will never know everything about endocrinology, because even doctors do not even know everything about endocrinology. There is some practical take-a-ways from this class as well. You will learn to study more effectively. The whole “punch-line” deal is so that you can draw information from keys that you know from practicing and going over material over and over again. Also, don’t buy the book. Not to say it's a waste of money, but go ahead and save yourself $100 and just read from wiki (seriously). I bought it, never used it once. However, I did use studyblue, which I found most helpful with the second exam. Also, make sure to put your tape recorders close to Dr. Advis. He talks generally at a low volume and sometimes it may be hard to understand him through his accent, but you will get used to it. I suggest sitting close to him so you can really absorb what he is saying. Also, attend the TA sessions. They took the course and really condense the material to their own punchlines that they used when they took the exams. Other than that, good luck on endocrinology :)
2015, Kinard Lindsey,

1) You'll hear this from everyone but listen to this advice-do your recitations early and often. Dedicate even an hour of study time specifically to the recitation editing and your life will be WAY easier; 2) Don't stress over incredibly minute details, you'll just be wasting your time; 3) Please don't be afraid to ask for help. Dr. Advis wants his students to succeed, but only the students who deserve it. Put in the work and you'll see results; there's no way around it.

2015, Tooba Mohammad,

I'm not even sure where to begin with this letter to you, considering that I'll be retaking this endocrinology course next semester. Yes, this course is that serious of a matter. I don't mean to scare you, neither does Dr. Advis when he explains the rigor of the course to you, but this is to prepare you in a better way. I'm a student who has tendencies in the past to memorize loads of information (especially a couple weeks before an exam). There were times when it helped me because I'm usually good at organizing thoughts important to remember, and then there are times that memorizing didn't help me at all (this time, it really didn't help). In this course, Dr. Advis is right when he says there is an overwhelming amount of info you need to know. You cannot memorize it. If you're like me, and an exam's coming up, you'll have a tendency to panic and try memorizing anyway. Don't do that. Do not memorize. Understand the material through active learning. I say this, because, the few cycles/processes I drew out and the tables I made of the hormones (he'll ask you to do this in the first couple weeks of the semester - don't wait until midway through to do it) did help me retain a solid understanding of information as compared to memorizing material. My only regret is putting off this active-style of learning until exam time, just because of some personal events that took place in my life. The course you are about to take will take A LOT of your energy, and a lot of your time. Dr. Advis usually has a recitation paper due each week before his last lecture of that week (check your own due date just in case). Make sure you do those on time. I cannot stress enough how fast the work starts piling up over the semester. You'll tell yourself that you'll get to it later. You'll even finish halfway through if you're lucky, but you won't get a chance to finish it in the end. Make sure you write these papers up and email them to Dr Advis for comments. I failed to do this, and the chances of me doing even average by the end of it all suffered greatly. I hope I haven't discouraged you yet, and I hope you don't stop reading. More than anything, what I do want you to know is this: Dr. Advis applies active learning in this course. His way of thinking is logical, and he will always ask you, "Why?" To each answer you give him, you will have to reduce until you've reached the simplest concept that you learned. In all honesty, I do love his method of teaching (and that is, to learn how to learn) because that's the best gift a professor can give you: how to learn on your own. We were told time and time again that, in veterinary medical school and in medical school, we need to know an overwhelming amount of information, and we should know the concepts well. You can't memorize every possible scenario, but if you understand the concepts, then you can apply those concepts to different cases and come up with a solution. This way of studying does work, because, from the few concepts I really "understood," I used an active-based learning that Dr Advis emphasized repeatedly. As I've mentioned, my only regret is that I was not able to fully apply myself as I wished I could. Don't let that happen to you. Don't memorize. Don't put recitation off until the next week. Don't cram. Do go to office hours. Do go to lectures. Do ask for help when you need it. Take a good quality amount of time out of your day to go over the material and really think about it; understand it. Really apply yourself and give this course all you've got. That's the only way you're going to get through this course. And, though it will be a humbling experience at first and quite a bit of a challenge, I can guarantee you that conquering it will be rewarding. It's for this reason that I haven't chosen to give up. For these same reasons, I don't think you should walk out of this opportunity. It will change you, no matter the outcome. Even if endocrinology was a relatively excruciating experience for me because of a few circumstances as well as my lack of willpower to get my momentum going in order to do well, I can tell you that I'll be retaking this course, as well as taking a couple other courses for the first time, with the same instructor: Dr. Advis. Before taking the course, I recall reading another student leaving a comment saying that they regret endocrinology being the first and last course taught by Dr Advis, so I plan not to have
that same regret. Dr Advis shows you how to apply yourself and really gets you to think about the material. If you plan on going to veterinary school like I do, or if you plan to go into medicine or even extensive research, I highly suggest taking this course with Dr Advis. It will change you for the better. Rewarding course, excellent professor.

2014, De Luca Katherine, Dr. Advis’s class will make you a stronger student. He is a wealth of information and you will learn a lot from his class if you put the work in. The best way to study for this class is to write your notes in a Q&A format. In other words, “what is the cardiac cycle? how does it work?” Take a long process and break it down into your own words, and then revise it as you go. Reading over the material before lecture is essential to get the most out of it.

2014, Sena Lena, To future students: Too many students are scared off from the start by Dr. Advis’ courses. Don’t be! Instead, take the challenge, and push yourself to succeed in his course because it will be so rewarding when you do. Dr. Advis gets students to think in a way they never knew they were able to. He has taught me so much about how to study for science courses and actually remember it later on! I can’t believe how much I remember from the start of the semester; in other courses, I forgot almost everything by the time the final exam came around. This is because Professor Advis forces you to LEARN the material. The old way of making notecards and just memorizing facts won’t work in his courses, but the new study habits you pick up will be exponentially better than those old ones. Go to his office hours and utilize the TAs. They are a huge huge help! He cares so much about his students and going to his office hours helped me tremendously with both recitations and lecture material. Also, read the book... The whole thing! If you can, read a chapter or at least the chapter summary before he lectures on it; it’ll allow you to follow his lecture that much better as well as interact during class period. That helped me a lot. Sitting in the front and taking part in discussion really allowed me to grasp the material. Good luck! No course with him will be easy but it WILL be worth it.

2014, Rosenblum Shira, There is no better professor at Rutgers who will truly teach you what it means to think and understand than Dr. Advis. This does of course mean attending both lecture and office hours religiously, but it certainly pays off. Dr. Advis will push you to your limits to the point where you not only become frustrated with him, but with yourself as well. He makes you realize that the classical educational model you’ve been subject to your entire life has left you with a lack of true understanding. He will continuously probe you with questions until you think back to the ultimate source of whatever pathway or pathology you’re discussing. The key is to not get frustrated or offended. The more Dr. Advis questions and pushes you, the more he cares about you understanding what you’re discussing. The moment Dr. Advis stops questioning your line of thinking, that’s when you should become concerned. I would definitely recommend meeting with the TAs for the this course as soon as possible to understand what Dr. Advis wants in the recitations, since it is very hard to know from the posted format. It’s not worth wasting your time working on something that is most likely completely wrong and the sooner you start the better. You will work on recitation questions from the beginning of the semester up until the day they are due. As you learn more information, you will continue to modify and “edit” your answers. The more familiar you are with the language, the higher the quality of your work. Even after hours of stressing over this course and occasionally finding myself in tears (yes, I’m not exaggerating), I am so thankful that it took it the year before I hope to be in veterinary school. I have no doubt in my mind that both the physical course content and the way I’ve learned to think and study will help me as both a veterinary student, and hopefully doctor one day.

2014, Deyanova Emily, Integrated Physiology with Dr. Advis is one of the most challenging, yet rewarding classes I have ever taken at Rutgers. I took this class since it was a requirement for my CNC (certified clinical nutritionist) license. At first, I felt extremely anxious, overwhelming and unsure of myself. I wanted to give up and look for an “easier” alternative. After attending the first couple of classes, I braced myself for the worst and embraced Dr. Advis’ study
model. I would go to class, read each chapter, read the PowerPoints and then write 2-3 pages of notes I thought were important. I ended finishing a whole notebook around 120 pages. By the end of the semester, I was able to summarize every lecture/chapter into less than a paragraph and somehow things began to click. Honestly, I accepted the fact that I had work hard and truly challenge myself if I had any hopes of surviving this class. **Things I have learned**- You do not have to memorize every useless detail; you just have to be able to understand the bigger picture. It takes time before things click but once they do, you will be a changed person. Use all of the charts and notes Dr. Advis provides as a map and test your understanding. (I would try and draw pathway-maps from memory several times in order to test my understanding). My biggest advice is to go to class and DO NOT FALL BEHIND. Cramming the night before does not help since exams are complicated and require active understanding and problem solving. Dr. Advis does not take attendance so many people only show up for the exam. BIG MISTAKE. You learn a lot of information in class which can be confusing and complicated if it's properly explained. The recitation questions are a lot of work, but you are also given plenty of time. Talk to your classmates and take advance of Dr. Advis' office hours. Do not wait until the last minute or you'll get a grade somewhere in the low 30's. **Things that I will remember**- Integrated Phys taught me how to study and not “memorize” useless bs material that I will never remember. I keep stressing this point because it's so important. It made me challenge myself and honestly taught me that unless I work hard, nothing will come easy (at least not in physiology). Once I started to understand the material, I found myself spending less and less time studying and actually found the material very interesting. Good luck. If I can do it, so can you. If you are looking for an easy A this is definitely NOT the class for you.

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**2014, Essenfeld Alexa,**

Good luck and keep pushing through the semester. Don’t let the first exam discourage you. Although the book is very thorough and informative, online resources such as wikipedia and interactive videos are helpful as well. Don't memorize, treat every chapter like a complete learning experience. You will be amazed at how much of what you learn applies to everyday life. Please feel free to reach out for moral support :)

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**2014, Domingues Carlos,**

Dear Students of Dr. Advis: Hello friends! the best way I can describe what you are about to experience this semester is a love-hate relationship. Many of you will be grateful for taking the course, and many of you are going to feel like you're being dragged through a field of broken glass. Let's get this out of the way now, this course is not for everyone. Not in terms of intellectual adequacy but in dedication, drive, and demeanor. Being naturally academically gifted will not be enough anymore, simply put YOU WILL HAVE TO WORK. When I took this endocrinology course in fall 2014 I was nervous because I was surrounded by a lot of bright minded peers who already had history is some sort of physiology and anatomy. I had none, so from day one I felt like I was at a disadvantage. Please do not feel this way. If you just follow Dr. Advis' instructions, follow up on office hours, and MAKE TABLES you will be ahead of the game. Some crucial mistakes I made that you have a chance to avoid: 1. **Do not wait to do recitations.** There's 10 for the whole course, ~3 per unit. If you do the recitations 3 at a time before each test it will not only prepare you for each exam but you also won't be scrambling at the last minute trying to complete them. This way you will be able to focus your time in better areas come time for the final; 2. **Do not rest after exams.** I did surprisingly well after my first exam so I got cocky and pretty much took the whole following week off. DO NOT DO THIS. I remember staying up all night before the final wishing I had that extra week back, so much could have changed; 3. **Do not be shy.** Go to the office hours, they are such a useful tool that can get you back on track and save you hours of frustration figuring things out on your own. As I mentioned this class is not for everyone. If you want to get by and just get a high letter grade, drop right now. If you want to truly experience growth from your college experience, you've found your chance. I wish I took Dr. Advis sooner. Figures I learn the best and most effective way to study for any science course one week before I graduate. Best of luck to you all.
2014, Montoya Paola,  
I love your class and your teaching methods. I think this is one of the classes that I have learned the most at Rutgers. I also feel you let us know at the beginning of the year how things should be done and if we do it, then we can do well (I took repro two semester ago ;) For all your students that are taking the class later on I want to tell them that if they follow what you say at the begging of the year they will do well. Do not wait until the end of the semester to start recitations; you won’t do well on them. It takes time and effort to really write good recitation but once you get the hang of it you will feel so much better and you will learn while you are doing them. To have a good recitation you need the right information and to have the right information you need to really understand all the concept that are being taught. I work at a veterinary clinic and I will ask the veterinarians at work about Dr Advis’ recitation questions. All of them would tell me how hard it sounded and that they did not really think they could help me. I think that says a lot about how important is to work on recitations, early on.

2014, Huynh Phu,  
Dear fellow students: Let me start off by introducing myself. I am a Henry Rutgers Scholar with Highest Honors in CBN. When I registered for Endocrinology, I thought it would be an “easy-A” class because I was equipped with critical reading/thinking skills, you know. I was very confident that I could easily ace this class without pressure. But Endocrinology was more challenging than I thought it would be. My first exam grade was a huge disappointment; it was a shock! What did I do wrong? Dr. Advis told us to attend his office hours, go to the TAs review sessions, and contact the TAs for help. I did none of that. I neither participate in class discussion nor asked Dr. Advis questions after class. Luckily, I was not stubborn enough to be the confident guy that I used to be. My grade went up a lot after I started going to office hours, asking the TAs for help and studying with classmates. Yes people, do listen to what Dr. Advis tells you to do. You will hurt your grade if you don’t listen to his advise. Here are some of my tips for you: 1) Read the book carefully and write sentences- do not highlight; highlighting simply does not work. You must write down the ideas. The next step is try to condense your sentences to one simple, but comprehensive sentence. You will be saving yourself so much time and brain power by writing sentences. Not only does it save you time, but also make you feel the light bulb moment during exams. Imagine having to turn pages to find the highlighted information and finding out that you don’t remember why the highlighted information was important; 2) Look at the whole forest- I mean details (trees) are important, but if you pay attention all the details always tend to converge to one main idea. This is why you should write and condense your sentence. I believe this is why Dr. Advis’ exams are hard, but easy. His questions seem to be very specific, but if you can catch the key word, then you are on the right track! By writing sentences, you are planting your trees for your own forest!!!; 3) Most important, listen to Dr. Advis’ advise- contact TAs whenever and wherever you need help. YOU MUST ATTEND HIS OFFICE HOURS. If you are going to spend time listening to recordings, I think it will be a better idea to go to his office hours. His knowledge and wisdom is the nutrition for your forest. Come with questions and ask questions; it does not matter how “stupid” or simple your questions are. You have to ask. He will be more than willing to help you. But there is a cost; you better be prepared to answer his questions as well. I have to admit that I made him angry several times because I couldn’t even answer a simple question. He named me “trouble-maker.” You will be amazed by how much you learn by just attending to his office hours. The most important thing you can obtain from him is not the answers to recitation questions, but HOW TO STUDY. Personally, I went to his office hours just to sit there and learn from him (I love money, so I imagined that his office hours is a diamond mine and everything he says is a 16 carat diamond haha). Hopefully, I did not scare you guy. You are very smart by signing up for this class. You are very brave if you decide to not drop this class after seeing your first exam grade. If you want to be smarter, do what Dr. Advis says. Try your best and good luck!

2014, Patel Yasha,  
In my opinion, Integrative physiology is the real science elective. In this course, you actually use your brain to think rather than just memorize. This course is nothing like other science courses offered at Rutgers. I mean it. It is purely a THINK, THINK
MORE, THINK SOME MORE DEDUCE, PICK THE BEST ANSWER OF ALL class. The only way to get around this is to answer recitation questions on time and get them checked by Dr. Advis throughout the course. Never be satisfied with your recitation answers or preparations for any exams. It just never will be enough. There is always more that you can do to improve your understanding of the material and his expectation from you as a student. He might seem very tough to deal with in the beginning, but I can assure you if you SHOW him you care about learning, he will go out of his way to make sure you succeed. I went to his office hours whenever I could and it helped me tremendously. For the last 9 weeks of the course, I saw him 8+ hours a week just to get additional help (apart from attending lectures/labs). Please do not slack off, keep up the readings, and ask him questions on whatever you do not fully understand. One of his favorite punchlines is "There are no stupid questions, there are only stupid answers" and he means this very well. Spend 3+ hours every day reading, answering recitations, or watching interactive youtube videos - basically DEVOTE TIME FOR PHYSIOLOGY on daily basis. If you do not think you can manage this, please take this course some other time. This class requires a lot of time! In short, if you really want to learn from this course and from him, do the assigned readings, send your recitations on time, discuss them with him during office hours, then edit them again in your free time and when you are alone, get them checked again until he is happy with it. Just by doing this, you are already ahead of everyone else. Even when you do not have questions, go to office hours and listen in. You can always learn from other students’ questions. I did! I really recommend attending office hours or make appointments with him if you cannot make it during his designated time slot. It is very important! Be patient and be prepared to endure. Don't be afraid, he is intentionally pushing you beyond your comfort zone to make your realize how much you are actually capable of. This class is more than just another 4 credit science elective. It is absolutely doable if you are determined and want to put in the time and hard work. GOOD LUCK!

2014, Reid Levitt, Dear future students, I want to tell you that this class (Integrative Physiology) is challenging and unlike any other courses that you take at Rutgers University. This class will be a challenge that you must work towards. First, understand that whenever you think that you understand a concept; know that there is probably more to learn about it. There is always something more to learn. Also, reading the textbook and doing recitations are a must do and they are the most time consuming part of the course. However, I strongly believe in taking the path of least resistance in life. Therefore, I strongly recommend that you take advantage of TA’s and office hours because this is where you will be able to get answers to questions. And yes, there should always be questions if you are doing the reading and recitations because the recitations are a way of getting you to think and apply what you have learned. Lastly, some encouraging words do not give up and keep fighting because you will get through it.

2014, Schlitt Miranda, The one thing I can say about this course is that at the end you completely understand the material. Dr. Advis teaches in such a way that you not only understand the material inside and out but you can address how to handle them in real life situations. I have not studied so hard for a class so far in my time at Rutgers but it has definitely helped me to prepare for my future career.

2014, Manoukian Bryan, I took endocrinology with Dr. Advis and am currently enrolled in his integrative physiology course. I also plan to take pathophysiology in the spring. I keep coming back for more because Dr. Advis challenges you. He show that you don't need to memorize every fact about every situation, you only need to identify a few fundamental patterns and apply them. His courses deal with massive amounts of information and you would 'go bananas' trying to learn it all. However, if you adopt his style of thinking you'll be better able to apply your knowledge and you'll excel in your other science courses. I took biochemistry (694:407) alongside endocrine, and used Dr. Advis' study strategies to more effectively recognize
patterns and better retain what I was learning. When I took the MCAT I scored in the 95th percentile because Dr. Advis prepared me so well not only with endocrinology knowledge, but with how to approach a test that asses such a tremendous amount of material. His courses are difficult, but if you apply and push yourself, you'll be a smarter and an overall better student by the end of the semester. Just trust him. Looking forward to physiology this year,

2014, Galing Kaye Angeli, To all the future students of Dr. Advis - Do not be scared. Yes, they may be challenging courses but Dr. Advis is there to help along with his TAs. He has recitations after class which many teachers do not offer. In there, you can ask questions and clarify things you do not understand. I recommend you to take advantage of this. It doesn’t matter if you are struggling in class or are doing well, it will be beneficial for you. Make sure you work hard! Do not just memorize but understand concepts. This is one thing Dr. Advis will emphasize. It may be overwhelming but trust me, it will help you retain the material much better. Lastly, know that Dr. Advis only wants you to do well. He will encourage you and push you to do better because he knows that you are capable of it. Believe in yourself that you can do it. I wish you the best of luck!

2014, Desio Daniel, If you think you know everything about how to study you’re probably dead wrong. This is a class where memorization is HIGHLY INADVISABLE and the material needs to be spent time with and understood. Don’t even think about putting readings off either and procrastinating because this class becomes exponentially harder when you fall behind. If you plan on working while taking this course (or even having two jobs like I did) be prepared to do nothing but study eat sleep work and go to class because that’s basically what I had to do to get through this class (unless your extraordinary at time management) because when Dr. Advis says you need to spend at least 5 hours studying outside of class he isn't lying. Be prepared to work harder than you ever have, come to class every day, read read read, have a good attitude, stay for the whole recitation period, and most importantly don’t give up. If I can get through this class so can you. Best of luck.

2014, Del Nero Nicole, I am going to be completely honest, this is my second time taking Systems Physiology but my first time taking it with Dr. Advis. It does not get any easier the second time around and you do not want to have to do it a second time around. I am still kicking myself in the ass about it. So listen to what Dr. Advis tells you and take all of his advice to let any of it go in one ear and out the other. By the time you read this I am sure he has told you how much work you have to do and that you need to keep up because there is no slowing down when it comes to this course. There is a lot of information and you cannot fall behind. Dr. Advis will continuously tell you that this course is not easy and if you want an A you must work for it. A’s are earned in his course not handed out.

This course has a lot of information and Dr. Advis is not going to do all of the work, you must put in the effort before and after class in order to succeed and do well in this course. You must read the chapters before the lecture on that chapter is given, therefore you will be able to follow along and edit notes you have already taken and add in the important information and facts that Dr. Advis mentions when he lectures. He will tell you little jokes in order to remember things and they will help so write them down. I can tell you that there are a few that will probably stick with me for a long time. YOU MUST STUDY, there is no flying under the radar in this class, you actually have to study and not just the day before the test kind of study. You have to study from day one, and when you study you absolutely should not be memorizing, if you memorize you are only making it harder on yourself, when you actually understand the concepts it makes the future chapters easier to understand. And when you understand, there is less and less memorizing to do. Just keep up with the class and put in the time and do not fail behind, I cannot stress that enough. Do not make the same mistakes I did or else you will be finding yourself in this class for a second time around. GOOD LUCK and do not let Dr. Advis scare you. He is a great teacher and you will learn a lot from him.
2014, Cho Sujin, For Systems Physiology summer session, my best advice is to read the textbook before the lecture. This textbook is by far the most helpful textbook I have ever owned in college. It's clear and well organized. It makes a huge difference because you can ask your questions during the lecture after you read it beforehand. This class is incredibly fast so you must keep up with the readings every single day. Personally, I learned a great deal in this class because usually I would memorize everything that I take notes on and when it comes to the exam, I would guess my way through everything because I didn't properly understand the material and I just couldn't memorize each and every detail. However, for Dr. Advis's class, he helped us understand each important concept that could be applied to other topics that saved me a lot of time. It also helped me reason through a lot of the questions without me memorizing every single little detail. All in all, you must read the textbook beforehand, understand the core of each concept (don't move on until you do!), and take advantage of the office hours and reviews that Dr. Advis and the TA's provide for us.

2014, Shah Nimit, I took Systems Physiology with Dr. Advis during the Summer 2014 session. Dr. Advis's class focuses more on integration than just physiology in general. The class is difficult, but not complicated. The material can be easily organized and understood, though this is time consuming. If you are planning on memorizing, don't take this class. All of Dr. Advis's test questions are deduction based, therefore you will be applying what you actually understood during lecture and from the readings. Reading is a must to do well in this class. Skim the chapters before lectures (focus more on the figures/tables), then after lectures read the material while taking copious notes. The more time you spend with the material, the easier it will be for you. The TAs are your best studying tools. They will not only explain the material, but they will answer your questions in detail, while giving you examples. The TAs for the summer were Dylan Klein and Madhavi Bhoraj. These two make a perfect tag team, so make sure you spend the review time with them (if they are your TAs).

2014, Zhang Qian, I took Dr. Advis's Systems Physiology course during Summer 2014. I had previously taken the class with a different professor and could not accept the grade that I was going to get so I accepted the F, to get it replaced. So here is my advice to you: GO TO CLASS! The reason I say this is because he gives little hints about what material you should focus on. Although I am a self-learner and probably have the worst attention span of all time, by forcing myself to sit through class, I was able to stay motivated and keep up with the material. I caught myself daydreaming half the time, but just being present in the lecture hall pulled me back. Dr. Advis has an accent, however it is not impossible to understand him if you pay attention. He is very open about allowing students to record his lectures, which I found to be very helpful (just in case I missed something while my brain had given up on me in lecture). Understand the topics, because they all build on each other. I won't lie to you and say its an easy class. Time and effort will need to be invested. I definitely am doing a lot better this time around, because I invested more time and energy into this class. Hard work does pay off. In short, GO TO CLASS, ASK QUESTIONS, and ATTEND STUDY SESSIONS (the TAs are very helpful!). I hope you all find the class to be fun and rewarding. Now go get those A's! Enjoy!

2014, McEntee Alexandra, DO NOT FALL BEHIND! This was my biggest mistake on the first exam (I missed two lectures and an entire weekend because I was on vacation, my personal choice to take the course anyway knowing these circumstances...mistake). I fell way behind and did not do well on the first exam. Dr. Advis will probably tell you that the second exam is the hardest and everyone is likely to go down about 10 points from their first score. I was able to go up and this makes both me and Dr. Advis happy campers, which he will also tell you. Do not memorize, another point Dr. Advis will drive home. You need to UNDERSTAND the entire CIRCLE and believe me you will learn this way. I found the best way for me to learn the material and study was not only by the book and going to lecture but by using YouTube videos, Wikipedia,
anything that would simplify the information for me to understand but also grasp the concept. Diagrams in the textbook are helpful. Draw pictures too. Good luck!

2014, Yuan Brenda,

Study tips: READ THE BOOK! While Dr. Advis’ slides are good, they are a skeleton while the book is the meat of the material and contains all information you need to know. Dr. Advis really teaches and pushes you to understand the information you are learning, so what helped me was to take notes on the book and rewrite everything in my own words so I processed it instead of just copying. Try to really listen during lecture. It really helped to read the chapter being lectured on the night before, because I knew the terms Dr. Advis talked about. If you are a pharmacy student...Trust me, the world is not over if you have to retake systems physiology! While we haven't yet taken the final exam and I am still on the borderline, I've realized how much time and effort I need to understand the material, and saw just how confused and lazy I was during the year. While of course it would have been better to do well the first time, I learned a lot from the summer course that I did not learn during the year. Also, I was so disappointed in myself for being weak enough to be on the verge of being "weeded out" and cried and worried that my future was bleak, but things have gotten better! I plan to continue in pharmacy and have gotten an internship and a pharm tech job this summer. So while these are kind of cliche, I just wanted to end with: learn everything you can, and don't ever put anything off for later, because you might never get to it. And, while you may have failures in life, things will work out if you work hard :)

2014, Hernandez Michelle,

The best way to describe Integrative Physiology with Dr. Advis is definitely a marathon. There is so much material in a short amount of time; you never stop going. The first exam is 2.5 weeks into the course and covers 13 chapters. That is about 500 pages of reading and you HAVE to read before class. It really does help the material stick with you. I know what you're thinking; "they always say that. I can get away with not reading." No. You're wrong this time. If you don't read, say goodbye to any chance you have at getting an A. You have to dedicate major time to this class. His exams are not like anything you have ever taken before either. They are not straight forward. Instead of asking you a question straight out, he will ask you in a "beat around the bush" sort of way. That way, it's a few questions built into one. If you don't know all three, you won't get the right answer. To study, I recommend reading before class to start the learning process. Get to class early to ask him any questions you have regarding recitations or the last lecture. After class, GO TO HIS OFFICE HOURS!! He will help you with the recitation problems as long as you know the basic material and have a rough draft. You don't have to do the recitations necessarily each Thursday but definitely keep up with it ( have something done each week if not the whole answer). If you are going to send him your answers to help you, just send the A answers. Most likely you have it wrong and then you will have done B, C, and D for nothing. MOST IMPORTANTLY- stay for the lab period. He will go over what your "a" answer should be for many of the recitations. If you don't have the one he told you to put, it's a dead giveaway you skipped class. This class was the hardest class I have taken at Rutgers but it was also the most rewarding. You will learn so much and it's amazing! Dr. Advis is really a great professor who wants you to learn the correct way to study. He did just that along with teaching me so much about physiology! I highly recommend taking Physiology with him!!!!!

2014, Wilhite Brittany,

The greatest piece of advice for this physiology course is nothing new: time management. With that said, you want to focus on efficiency. Dr. Advis is more than willing to help you if you ask for it; take initiative, he will not baby you. Utilize the TAs as well. I think a huge issue for science majors is getting over our egos to do everything well on our own. The help is there, don't be foolish and USE IT! More along the lines of efficiency, Dr. Advis will teach you how to study in a way that you are most likely not used to. In many classes, you can memorize and get by doing well. In this class, memorizing will get you mediocre exam grades at best. You want to understand the material well, and there is a lot of material to get through. Many students, including myself, had a hard time changing study methods that have
been forever ingrained in our minds to adapt to this type of course (basically taught in a graduate-level style). A lot of lazy people have a problem with Dr. Advis because he will not spoon feed you the material like many other teachers will, and the exams require actual thinking. He will go over the most important concepts in class, but it is up to you to put in the work for it. Do not be lazy and do not procrastinate, especially on the recitation questions (if you think you don't have time to work on them, MAKE TIME to work on them and go over them in office hours...TRUST ME ON THAT). You have complete control of what you get out of this course. It doesn't have to be a struggle if you set yourself up for success by managing your time and material well.

2014, Jahn Jennifer,  
Hear me out, because when I read the letter from a student who took this class the year before, I didn't take it seriously at all. This physiology class is difficult and time consuming; the exams are comprehensive and can be slightly confusing and the recitation questions are your worst enemy. At least that's how I felt because I didn't take any of his advice. But honestly, I wish I did. Do what he says. Before you attend his lectures, read the chapters in the book. Then, look at the first slide of his PowerPoint slides and make five or so questions out of his punchline topics that he will be covering. Go to lecture and take detailed notes and then go home and answer those questions - answer the questions in as many sentences as you want whether it be a paragraph or five pages. Then, go back and edit them down. Edit those answers until they are one sentence long or maybe two. Those are punchlines and those will be your study guide for each exam because if you can understand that punchline, then you can remember everything you wrote in that paragraph or those five pages of notes you wrote beforehand. Also, do the recitation questions weekly. I know I didn't and I regret it completely. Saving it to the last minute was probably the most stressful thing I had to do. Go to office hours. Dr. Advis will help you understand the material and will help you get the recitation answer, you just need to show him that you're willing to learn and that you need the help. Believe me, I read one of these letters my first day of class and thought I didn't need to do all that. I regret all of it now. Take my advice, and take his advice, and use his studying method. This class is a lot of work, but if you are willing to put in the work and not make the same mistakes I did, then I'm sure you'll do well. Good luck.

2014, Deinzer Jenna,  
Dr. Advis is unlike many of the other professors for science courses at Rutgers. He takes a different approach and really wants students to have a deeper understanding of the material and not just memorize information. Memorizing information is not going to help you do well in this course. You need to do much more than that. Use the "punch lines" he includes on his power point slides or that he says in class to help you pull out the important information and organize what you need to know. Also, use the recitation questions to help you apply the information you learned in class. Applying the information and not just copying information from the slides or textbook will make it easier to remember. Also, connect every topic that you learn about in lecture to the "bigger picture".

2014, Longia Gurpreet,  
There are many things that I wish I had done differently while taking this course. I think you should attend all the lectures, take notes, and also record his lecture. Also I think you should skim through the notes and the book before coming into lecture, so you have more background on the material. Also i think you should do the recitations before class, and have Dr. Advis check them for you and then you can get feedback and do better on them. I think you should just make sure you pay attention in class and take really detailed notes of Dr. Advis's lectures.

2014, Longia Gurjeet,  
This advice is from a former student in Integrative Physiology. There are many things that I wish that I did properly in this class. These include doing the recitation questions before the due date for each question. Go to office hours if you have any questions for anything, the recitation questions, the material in class, any questions for the exams, and for the lab. Print out notes for each class, and take notes on anything that is not
there. Do not try to write down everything that Professor Advis says because you won't get the punchline of the lecture. Record every lecture and go back and listen to see if you missed anything. Ask questions, get help from Professor Advis, the TA's, your fellow classmates, and the previous students, and the Facebook group.

2014, Janoowalla Zahra, 1. DO RECITATIONS EVERY WEEK. And discuss them with Dr. Advis in his office hours. The worst mistake you could make is waiting until the end to do them. Pretend as if he is collecting them every week for a grade; 2. READ THE TEXTBOOK. You will not understand powerpoint slides (they only have punchlines and pictures) unless you invest time in reading the textbook; 3. TRY YOUR BEST AND DON'T GET DISCOURAGED. Even if your grades are below average, try to not loose motivation. Be positive and try to learn as much as you can. Ask for help all the time.

2014, Murphy Daniel, This class has certainly been one of the wildest roller coaster rides I have ever been through and it was definitely one class I will never forget. This class was like none other that I have ever taken because it was a class where I had to adapt myself to the fact that all of the material that Dr. Advis presented could simply not be memorized in order to do well. Dr. Advis expressed an unlimited amount of emphasis on focusing on the punch lines for all of the material in order to put all of the tiny components of the lectures and the readings together into one huge picture. This is a course that requires intense amounts of studying and unfortunately hours upon hours of editing recitation questions, in order to grasp the main concepts that are being conveyed and in order to do extremely well on his exams. While I am not planning on attending veterinary school or going to graduate school right away, this course was very beneficial to me personally because it taught me how to be more disciplined and more attentive to the material being presented and I feel like I am more prepared than ever to go back to grad school if that happens in the future. While this class can definitely be scary and probably one of the most stressful classes you'll take in your undergraduate career, you will be thanking yourself that you took Dr. Advis course because even if you didn't grasp everything in his course as long as you pay attention in class and make an extreme effort to get help whenever you can either by going to his office hours, spending time getting help from a TA or by forming a study group, all those things will greatly benefit you and make this experience more informative and enjoyable.

2014, Walsh Alex, With any of Dr. Advis' courses, the most important thing to know is that you have to "understand" the material, not memorize it. If you memorize it, you might learn what generally happens in a certain physiological event, but you won't have a good grasp of why it happens. On his tests, it is important to have an understanding of the material from which you can logically determine the best possible answer. His recitations may seem intimidating, but they are there to guide you on how to study and gain a better understanding. Ultimately, Dr. Advis teaches you what is most important for every student and that is you have to be proactive in your education and develop a better way to study.

2014, Tursi Mary, Start right now! Do all the readings before class and answer the recitation questions before each deadline. It is really important to stay on top of your work otherwise it adds up. I would block off an hour to two hours each day and dedicate that time to studying. Dr. Advis really does want the best for his students, but he can't help you if you don't help yourself first. So stop reading this and go read your book :)

2013, Lee See Gin (Susie), To future students who take this class (summer system physiology), all I can say is that it was almost a life changing experience. I've taken this class in the spring semester and taking it in the summer is such an improvement. I've never been a bio person but this class has almost made me one. However, this should not be taken as an opportunity to slack because this class did require quite a bit of work. As Dr. Advis liked to say,
you will not be going to the beach during the class. I would absolutely advise to stay after every class for recitation. They helped so much especially since I wouldn't catch everything he said in lecture. It also helped me know Dr. Advis better in terms of how he teaches and what he focuses on. Absolutely attend lecture. They help so much in learning what he actually covers on the exam. Although I tried to read before every lecture (which helped so I could follow along better), Dr. Advis did a much better job in teaching the material. The book (which is definitely a GREAT resource and a fantastically written textbook) did not integrate the systems as well as him. Although the class was a lot of work, it's one of the few science classes that I truly enjoyed. There are no tricks and getting a good grade is a very straightforward process. I wish I could take more classes taught by Dr. Advis.

2013, Jiang Lilly, Dr. Advis is an awesome guy. While in other classes you'll learn facts and doo-das about what a node of Ranvier or what a hematocrit is, Dr. Advis (summer system physiology) will actually connect everything together and help you figure out how systems in your body actually work. DEFINITELY know the slap-in-the-face example and metabolic acidosis!!! I found that discussing with fellow classmates and staying after class for the recitations were EXTREMELY helpful--Advis will guide you in recitations and lectures to let you know what's important, what you should really learn and try understand, and what is rote memorization that doesn't really matter. Discussing it after class will reinforce ideas in your head, and will also help you understand what exactly happens when you exercise, or eat salty foods, or slap someone in the face. Do not take this class for granted: you will definitely need to spend a lot of time reading the material and learning it. And you will definitely thank yourself for spending a lot of time with the material as well. Advis is awesome! Utilize him well; ask him questions but also try to answer them yourself - learning is not a one-step process. Good luck! And may this class be as helpful to you as it was to me.

2013, Visagio Angelica, Let me first say that before you decide to even take this class (summer system physiology) you better be prepared to give it your all. You HAVE to read the first 5-6 chapters of the textbook before the class even starts or you will be a week behind on the first day of class. Also, Professor Advis is going to seem very intimidating at first (and through out the course!) but he really wants everyone to do well and he truly means it when he says that he just wants to teach you how to STUDY! If you listen to him and what he says, at the end of the course you will know exactly how to study. This course, for me, was very rewarding and I'm grateful for how much I have learned and you will be too! There is a 1:1 correlation in this class between the amount of time/effort/studying and what you get out of it. GOODLUCK!

2013, Seo Ye-Won, When I took Systems Physiology (summer), I took it at a time when I was questioning my ability to succeed, thanks to being dismissed from the Rutgers Pharmacy program and just generally feeling overwhelmed by the level of summer courses I was taking. For those of you who find yourself in a similar position, I can confidently say that passing the Advis?s Systems Physiology course (and if you?re taking Organic Chemistry at the same time) is not an impossible goal. Expect to take absolutely no vacations or breaks during the week and weekends, and just really apply yourself. I strongly suggest attending recitations (before and after the class) and interacting with the professor and the TAs. Every mistake you make is a point in your favor, because you learn from them. I have to say that Advis?s Systems Physiology course is much better than the one you take during the spring semester (with either Merill or Golfetti) because Advis presents so much material in a manner that makes it possible for you to digest and absorb it all in time for the exams. The amount of material might be intimidating at first, but if you adopt the study methods that Professor Advis encourages, then that amount will be much less intimidating. At the same time, I don?t want to raise your hopes too high by giving you unrealistic expectations. Systems Physiology is a lot of work. It will take a lot of your time (at least 5-7 hours per day!). If you feel that you can?t do it, then talk to the professor. He will help if you ask for it. Systems Physiology is a course that you have to put your all in in order to succeed.
Taking that and Organic Chemistry at the same time will be very difficult, but then again, you?re probably already determined to change yourself, and I can ensure that your determination will be a major source of help for the summer. I wish you luck if you do decide to take the course and I?ll remind you again that how you do depends entirely up to you, but that you don?t have to do it alone. I couldn?t spare the time for study groups or staying for the full time of a recitation session, but between reading the book and constructing punchlines from the powerpoint, I managed to stay alive. Many people will suggest different strategies. With only so many hours in a day, it will require you to become quite creative (you might not have time to re-listen to the lecture recordings or read the chapters over and over again, but don?t be discouraged! With luck, you won?t need to relisten to recordings or read chapters more than once if you apply Professor Advis?s recommended study methods). You?re also welcome to email me for advice, though I highly suggest emailing or asking one of the TAs instead.

2013, Lee Sungjae,
Hey students of the future: I took systems physiology in the summer of 2013. The course certainly isn't easy, but it's definitely doable. One of the things Dr. Advis will emphasize is studying and understanding key concepts, or punchlines, instead of just memorizing. That is the key for his class. It will not only help you now but it will also help you in the future. Reading the book helps a lot. If you do it ahead of lecture, you'll have a much better time following him. If you do it afterwards, the lecture you were so confused about will become clear to you. Furthermore, go to recitation. The TA's will help you learn and give you a review of the key points of the lecture. It will help a lot. Be serious. I can't say I enjoyed this course, but it was certainly not the worse course I've ever taken. It'll suck, but you should be able to pull through.

2013, Mancuso Breanne,
If I could tell the students for the next class anything, I would tell them to make sure they pay attention to every lecture and ask questions if they cannot make connections. They need to be able to make connections or they will not do well in the course (summer system physiology).

2013, Beauvais Marie,
Hello everyone, my name is Marie Beauvais and I took the system physiology course with Dr. Advis in the summer. First thing I must say is that memorizing will not work but understanding the material will. His questions are hardly based on memorizing and about 95% are based on understanding of the material. Your book is your best friend. Dr. Advis goes over the important stuff in lecture and you go to your book for the ?stupid details? as he calls them. Come to class prepared! Make sure you read the assigned chapters over once before lecture. When you go to lecture try to just understand what he is talking about and ask question if you are confused. You will not be able to do this if you do not have an idea of what he is talking about. Taking a lot of notes during lecture is not a great help. That is why I encourage you to listen to recordings of the lecture when you go home that way you can write your notes and have the main topics you should focus on and the slides also help with this. Listening to lectures again help you pick what you should focus on because the book has a lot of extra information. Read the chapter over again slower this time and make an outline after you listen to the lecture again. You will be basically studying every day. I know it is hard not to work but try not working right after class. Dr. Advis is usually there an hour before class and an hour after class BRING ALL YOUR QUESTIONS. He does not bite I promise. TA?s all also available right after class for recitation and they answer via email. Do not go to recitation and sit there and listen like I did in the beginning. Try answering questions and if you are wrong they will correct you and it will stick with you. This course is interesting but very time consuming. Make sure you take time to study with others, talking about the material will help it stick more. Use your own words but also use the terminology that is used in class so you are not shocked when you get the exam. TA?s also have Friday review session in the afternoon if students are interested. Make sure you used the Facebook site, post your questions and also answer questions if you can. The site also contains some materials but of course you are better off making your own notes. Also
use Wikipedia and YouTube videos as supplemental materials.

2013, Nandyala Srisampada, This class (summer system physiology) really tests your patience because it's all about understanding. If you think memorizing will get you far, think again. Of course, some concepts are very straightforward and you either know them or you don't, so those you need to get down. The rest of the material, however, really tests how you can think about what is going on in the body. Dr. Advis uses his "stupid jokes" to help us understand concepts, and I suggest you use those when studying. They really helped me get certain processes down. Another big suggestion: use your resources. If TAs are holding review sessions, attend as many as possible. Go to recitation. You need that extra interaction with the professor and the TAs to help you learn beyond what was said in lecture. All the help offered really jump-starts your thinking process for studying. Most importantly, try your best and keep pushing for more knowledge.

2013, Logue Melanie, First off, reading the book is incredibly important. The information covered in lecture (summer system physiology) will not be as useful to you if you have not read the chapter beforehand. Although time consuming, it helps to read the chapter again afterward, and create a list of questions that you can ask T.A.'s. You should be able to explain things in your own words...copying things from the slides or the book doesn't test your own knowledge. Get the basic ideas down first before you pay attention to details. Going to office hours after class or studying in a small group with one of the T.A.'s give you a review and helps to reinforce the information you're learning. If you don't understand something, don't let it slide. Most likely a concept will relate to something else you will learn in an upcoming chapter. With that, you will find it easier to comprehend processes and mechanisms in the later chapters studied in this course because you will see the same things over and over to and concepts will come more easily to you. Overall you will learn a great deal in this course.

2013, Gilles Ambroise, I took Pathophysiology in the spring 2012. It was the first time Dr. Advis was teaching this class, so things might have changed a bit. Patho is a really hard class and should not be treated as a filler. It requires a lot of background knowledge without which you will not be able to understand and enjoy the class. It is fast paced and requires a lot of personal work. I would strongly recommend taking pathophysiology after systems physiology and endocrinology. I took pathophysiology before I took Endo and I regret it; it put an extra load of work on my shoulder, and I was not able to participate and enjoy the case studies as much as I would have liked to as a result. Do not repeat my mistake! Also, taking Patho before systems physiology would be an academic suicide. Pathophysiology is definitely one of the most interesting classes at Rutgers. You learn more in this class than in any other class, and getting to combine and use the knowledge you acquired in other classes is very exciting. About Endocrinology. Dr Advis is very experienced in teaching this class, and it shows. After a semester you will start thinking in hormones which will open your mind. Among other things, I found discovering how homeostasis is maintained and how the different organs and cells communicate with each other at the molecular and cellular level very interesting. I would recommend taking it after systems phys and biochemistry. It will help you better understand these topics and how these fields come together in understanding our body. This class is a lot of work, but it is all worth it if you plan on working in any biological sciences. Record lectures and study with each other. It helps. Spoiler: the circle is a big deal.

2013, Labib Anthony, Hey Advis students: Just wanted to give you some advice to help you along with your class with Professor Advis. The way to excel in Advis' classes is to really get an understanding of the material you're studying; memorizing will really not help you. The key to doing well is acquiring a clear understanding of the concepts he teaches so that you could deduce well on exams. The best way that I personally found to study the material is to record Advis' lectures, and really LISTEN in class. Then on your own, take notes on the audio
lecture, while having the book handy and a laptop to google / wikipedia any information that isn't clear. This works well, since Advis lectures well, and he stresses the concepts you need to understand in lecture. It is crucial to UNDERSTAND the fundamental concepts that Advis is positing. I found it helpful to make a concise "cheat sheet" summary of the important concepts to study from shortly before exams. Hormone tables were helpful too to consolidate information. This study style worked for me, and got me A's in both of the classes I've taken with him (Endocrinology and Animal Reproduction). Take his class, being prepared to do work, but also expecting to grow in understanding and evolve in study habits. Best.

2012, Davidson Victoria, Advice to future students for the summer system physiology course: 1) RECORD THE LECTURES, 2) Make lists of ANY question that pops into your head for every chapter. At the end of each class, stay after and ask the ta/email the ta/post it to the facebook group, 3) NEVER NEVER NEVER fall behind.

2012, Kotturi Sweeney, Do the homework assignments for the Animal Reproduction course! The homework IS the way to study, and the way to answering the questions is to work out the class material and use it as a resource. The answers cannot be found simply written out in text; you must study and use that material to make inferences. The questions are difficult to answer, and Dr. Advis will almost always give you the vague comment, "please answer my question". Try not to get frustrated with him, though, because his point is for you to learn in a way that suits you. There is no spoon-feeding of answers in his course which is going to be pretty typical throughout college. Making laborious efforts isn't going to go to waste as you most certainly earn your grade. Serious efforts to succeed will never be fruitless.

2012, Rogado Sarah, I really loved the course (summer system physiology) and have learned a great deal. The way Dr. Advis teaches definitely pushed me but I've definitely learned more than I could have ever imagined in the past six weeks. I don't really have any complaints. What I suggest to future students is to always read the lectures to be covered a head of time so they keep interested in lecture as well as understand what's being said. They definitely should follow Dr. Advis advice: write down concepts; if you can write a single sentence about a concept, you will understand it. And ask questions if you have them, never leave anything unsaid if you don't understand it or you will totally regret it.

2012, Nagrashna Riddhi, The summer system physiology is unlike any other class that you will ever take. It challenges you mentally and makes you dig deeper into the core concepts that he wants you to focus on. It is hard to study for this class because usually, you would just sit down and memorize material; however, in order to do well in this class, you cannot study by this method. You need to sit down and write all the concepts out and go back and edit them. Additionally, form study groups because that is the best method to make such a large load of studying into a smaller one because you end up summarizing everything. Do not sit down and memorize tiny details because by doing this you will only waste time and probably not have enough time to go through the rest of the material. Good luck to you all!

2012, Villamor Jessah, First of all, as a summer course, it is really beneficial to read the book ahead of time, so that lecture actually makes sense and you can understand. Especially because of the fast pace of a summer course, it is vital that you do not fall behind. Dr. Advis is a great professor and he will really push you to learn and to study properly. He challenges you a lot and it is definitely possible to succeed and learn, but you have to do the work. Also, the after class recitations are very helpful, but only if you actually ask questions. If you do not show initiative and ask questions, the recitation is a waste for you. This is not the type of class where you are spoon-fed the information you need to know, you really do need to do the work. Despite the challenge, Dr. Advis is always very helpful if you ask him for help and he is also very understanding. The TA's also help you a lot. You are given a lot of resources to do well,
which is why no one can really complain that the class is unfair. If you use your resources and study properly, you will learn a lot and it will show in your grades.

2012, Chiu Derek, To all future students, system physiology of summer 2012 was definitely not an easy course so don't think that you're just going to breeze through it. Dr. Advis makes this course a challenging one, but you will definitely learn a ton if you push yourself. If you want an A, you're going to have to put a lot of hard work and dedication to this class and your probably going to have a ton of fun reading your textbook. Advice to all future student: make sure you read everyday to keep up or else you will fall behind really fast because the class moves at a very fast pace. At the very end, what I took from this class was to not sweat the small stuff and learn the bigger concepts. Good luck to all future students.

2012, Bayot Alan. Greetings, future/prospective students of systems physiology! Simply put, if you are the type of student who is diligent in reading before lecture, taking detailed notes during lecture, and asking questions after lecture, then great; follow this same methodology. (If you're not that type of student, you're going to have to be, for this class!) However, as well intentioned as that way of study is, it may not be enough! You are going to have to do even more, at the very least, in your way of thinking and making connections. Dr. Advis emphasizes the importance of understanding physiological processes (circles!) over rote memorization, and for good reason. Knowing a process not only helps you recall details better than focusing on the details piecemeal, but also gives you an appreciation of how everything works together. Making this adjustment to learning how to comprehend the "big picture" rather than memorization alone can only help you in your health related studies in the long run (and may also help you study better in other classes!). As an analogy, simply memorizing what alveoli, oxygen, and surface tension are/can do can not really help you to explain how emphysema happens (unless you know the "circle" of respiration involved) just as knowing what spark plugs, pistons and gasoline do on their own does not really help you understand how an automobile is capable of movement (which is probably easier to understand, since most of us know how all those things work together in the "circle" of the internal combustion engine). If you haven't had to use a voice recorder until now, I highly recommend one for this class as well! It will definitely save you for those times you may have missed something in lecture. What's great too is that Dr. Advis' lectures are quite succinct as to almost be like an "audiobook" for physiology. Listen to the recordings and make notes from there; what he emphasizes in lecture and slides represents that upon which you will be tested (also remember to read the textbook!). The early lectures seem daunting with the sheer volume of material you have to study initially, but all will make sense when you learn the later physiological processes such as those in the cardiovascular, renal, and digestive systems. Make use, too, of office hours and help from the TA's. The TA reviews really help, as well. Why cheat yourself of a good education? You (or your parents!) are paying for it, why not get the most out of it? You wouldn't leave a movie early that you paid good money to see.

2012, Yum Subin. I have taken four classes with Dr. Advis (System Physiology, Endocrinology, Animal Reproduction, and Pathophysiology) and I simply cannot thank him enough for all he has taught me. He has not only taught me physiology but also the very important concept in life: that if you work hard enough for something, there is nothing you cannot accomplish. I am not going to sugar coat things and tell you that his classes are easy – trust me, I've had my fair share of heart attacks before his exams. However, as he told me, if you keep pushing and don't give up, you will be surprised with what you are capable of. I took System Physiology twice and upon completion, wasn't sure if I wanted to take Endocrinology in the fall. However, it was one of the best decisions I've made. The following Spring, I took Animal Reproduction and Pathophysiology. If you are interested in taking Animal Repro, I highly suggest that you take Endo prior to it. Repro is a subset of Endo and you will find Repro much easier if you have the Endocrinology background. As for Patho, you will be much better prepared if you take either System Physiology or Integrative Physiology with Dr. Advis. Pathophysiology is simply
learning about how physiology can go wrong and therefore having a strong background in physiology will help in this course. The first key to do well in Dr. Advis’s class is not to fall behind! Beware: this is NOT a class you can cram! It takes time for the material to really soak in. I know that this can be very difficult when you’re handling multiple courses but the trick to stay on top of the course is to read before class. I found it very helpful if I read before class and ask questions during lecture or immediately after lecture, really helping me learn the material on time rather than stressing out later because I have not understood the material earlier. If you are short on time, don’t try to read the entire chapter word for word. I found Wikipedia very helpful in this sense – I suggest going through the lecture slides and Wikipedia the key topics that are going to be discussed during lecture. Really learn to use multiple sources – Wikipedia, textbook, other textbooks you may find helpful for the recitation questions, youtube videos…etc. The second key to do well is to rank information. This is a trick that I ended up using in every single one of my classes. Some of you may have mastered it already but ranking information allows you to really focus your time on the material that is most likely going to show up on the exam rather than trying to study all the material and running out of time later. Dr. Advis presents a lot of material, as you can see by the textbook as well as the slides. You can rank information by focusing on the topic that was discussed most in depth in class as well as counting how many slides are about the same topic. Organize the information by numbering the most important to least important topics and start focusing your energy on the very first one. For Pathophysiology, yes, there are many diseases presented during the lecture portion so make sure you focus on the case studies to see which diseases come up again as case studies. The third key to do well is to write sentences in your own words. I didn’t really practice this until the Pathophysiology course and I wish I had done this earlier. Because Dr. Advis didn’t lecture each topic in depth as he did with Physiology, Repro, and Endo, I was forced to review my physiology and really learn to use the textbook to teach myself as much as I could. Dr. Advis keeps repeating that if you cannot write it, you do not know it. And this is true. Reading is too passive and you cannot retain all the information you read. However, if you organize what you read into your own sentences, you will understand and retain the material much better. For Patho, I found it helpful to write the sentences and then associate them with a picture of the disease to help me remember. I think it’s best to find your own method of learning and incorporate it to your study. And lastly – don’t be scared! Some students are too scared and run away (trust me, I was one of them). But if you work consistently and diligently, you will do well and will be so proud of yourself at the end. Good luck!!!

2012, Moscoso Natalie. First things first, reading the book ahead of lectures (for the animal reproduction course) will be extremely beneficial. I was never a fan of reading when it came to any of my courses but without a doubt it is extremely fundamental. Dr. Advis’s class was quite the challenge but I can’t even begin to explain how much I learned from his class and it is one of the greatest feelings. He assigns questions every week on each topic that is going to be covered and doing them will be a great way to study for each exam. I attended weekly meetings with one of the TAs to work on the questions and to stay on top of the work, I would greatly advise all of you guys to do so also. If you don’t put 100% effort into your questions and studying, you will fall behind very quickly and will risk receiving a failing grade. Dr. Advis can be intimidating but he forces you to think and perfect your knowledge, his office hours are helpful. Use every one of your resources and apply yourself; that is key to doing successful in his course. Best of luck to all!

2011, Jafri Aliya. Endocrinology was by far my favorite science class of my under-graduate career. Let me preface this by saying that this class is hard work, and you need to be able to dedicate time to it. However, because of all of this extra time and effort, this was the most satisfying science class I have taken. If you succeed in this class, not only will you come out with a really solid knowledge base, but you will have changed the way you learn and think when it comes to science classes. There are three major differences between this class and other classes: 1. The way you study / learn: The first major piece of advice I give you is to really listen to Professor Advis and the advice that he gives. He designed this class, so obviously he
knows the keys to succeed in it. One of the things he tells you to do is to write all information you have on a certain topic, and then edit it down to one core sentence. This worked so well for me, and I realized it was because it makes you truly understand the material, rather than memorize it. When you are editing down different facts about a certain topic, you are making associations in your head and once an association is made, you don't need to memorize it. Also, making simple lists or charts of related hormones grouped together under a larger idea makes your life much easier when studying. Once again: associations; 2. The way you take an exam: The exams are probably different from any other exam you've taken by another professor. The best way to describe them is as a marathon. They are 100 questions long, and most of the questions require you to pick the answer choice that is wrong, rather than right. This requires you to know more than you usually would, which is why memorizing won't work. Memorizing mass amounts of information is probably the worst thing you can do, because you will find yourself utterly confused and flustered during the exam. You need to pace yourself and be well rested and well prepared for these exams because they are exhausting. They require much more mental work than just picking out an answer choice that has familiar key words related to the topic like in some other science exams. These exams truly test your understanding- all he does sometimes is change one word in the sentence, making it completely wrong. Answer choices are full thoughts, threads of logic, rather than a few words long. And he's right when he says that when they're wrong, they're really wrong; 3. The way you understand / think: When he asks you a question in class, most of the time, it's part of a string of questions. Every time you answer, he'll ask "why?" until you get down to some really basic concept. This is another way of asking "so what?" This was probably the biggest way he changed the way I process information that I learn in class, because after a while, it becomes intrinsic, and you start to ask yourself "so what?" or "what you are studying about?", and get to a much deeper understanding. This made me realize that in most of my classes, I didn't truly understand the information I was learning at a very deep and basic level, but rather superficially, just enough to get the question right. Also, don't take for granted the concepts that he simplifies or repeats over and over again. Those concepts will come up on all of the exams. His little jokes like "if you scream I don't listen" would come back to me on the exam, and although they seem very simple, they would actually help me. I am so glad I took this class. The only regret I have is that this was the last and not the first upper level science class I took.

2011, Sarlo Mark. I took Systems Physiology and Endocrinology with Dr. Advis during the Summer. Let me say, these classes are very interesting and in-depth. He covers all aspects of biology. I had learned more information in these two classes than in a year worth of classes. Dr. Advis strays from the average learning and bombards you with tons information. Do not be intimidated when I say this. However, he teaches you how to learn in a different way: through active learning. Memorization for either of these courses will not cut it, eventually the material builds up where it will engulf you. It is possible you will get by on the first test with memorization but the second test you will not do nearly as well. You need to build on this skill, but it does not come overnight. For one to be successful in this course, you will need to do a few things. First, brush up on your basic biology. He touches on basic biology that most people have forgotten and may even have to relearn. Secondly, make sure you take notes and learn how to apply them, like Dr. Advis says. It will present a bigger picture for you and understand that knowledge at hand. Next, read the book. Plain and simple, it is there for a reason. Lastly, if you do not understand the material, do not be afraid to ask. If you fall behind in either of these classes, it will come back to hurt you in the end. The material builds up and it builds up very quick. If you can apply all of these methods together, then you will succeed in Dr. Advis's classes.

2011, Karcnik Jacques. Top 3 Tips for doing well in this course: 1.GO. TO. CLASS; 2. Go to Dr. Advis or TA office hours; 3. Milk lecture and lecture material for all that it is worth. This means recording and repeatedly listening to lectures. Dissect the lecture notes. LOOK FOR PATTERNS in the hormones you are studying. What makes them similar? What makes
them different? Top 3 Tips for Studying in this course: 1. PRIORITIZE. You are not expected to know everything. You can do well if you know what is expected of you very well; 2. Make hormones table and review everything periodically. This is a great way to recognize patterns; 3. Rely most on lecture-based material.

2011, Peña Moises. If you are reading this then you are about to get real insight on how the class is really like, rather than the crap found on the comments on rate my professor.com. Need-less to say, the first week of being in Dr. Advis's class scares a good portion of the class away. What scares students is that the class has a high yield of information and even more so when Advis lets everyone know right away that this is the nature of science / medicine. Those who enjoy the overwhelmingly large and ever-changing nature of science remain and those that do not, often find the course difficult or just run away. You should only stay if you are willing to put in the hard work and appreciate the hard work that goes into understanding science and medicine. Advice for those who are in the endocrinology class is to definitely have or get a good foundation in physiology. A good grasp on molecular biology, biochemistry, experimental techniques and genetics helps too. His class covers a huge variety of topics...sit down in the first week of class when he explains the course and you will know what I mean. So just be willing to be humbled by the amount of information and appreciate that there is so much to learn. If you can do that you should be fine, as long as you put in the hard work and are smart enough to seek his advice. It is really a wonderful experience to be one of his students. Why else would anyone discuss how much they love how he teaches outside of class, or write comments like this about him anyway? This is THE class to take before you graduate."

2011, Sadda Ayad. My advice to you is to take advantage of office hours. My schedule never fit office hours and so I advise you to build a schedule around that because Dr. Advis, like most professors, is better able to connect with students in smaller groups. Make sure you speak LOUD AND CLEAR in recitation and also learn to stand up for yourself if you think or know that you are correct. Most of the time, you will be, since all the needed material to answer questions never left your side. The answers to the recitation questions are not usually in your book, notes, or online. They come straight from the top of your head because you do know, what you think you do not know. Office hours are there only for Dr. Advis to bring out what you already know. So, don't be nervous if he suggests "Do not come to me for a shower of knowledge". When you tell yourself that you do not have time for these questions from the beginning, then wait until the end and THEN see how much time you really don't have, when you have to cram for finals.

2011, Simpson Merrill. You will learn more in this course than in most other courses at Rutgers as long as you work hard, spend the time required, and ASK FOR HELP if you are confused. That being said, the course will require more time than most classes so my recommendation is to make your schedule light the semester you take physiology. Cramming for physiology will not be a successful method for studying, so keep up with the material and do the recitation questions as they are assigned. Memorization will not be helpful because there is too much material, instead try to make sense of important concepts and make connections between concepts. Going to class is VITAL to your success; the concepts discussed in class will be the focus of the exam questions. It is impossible to learn all of the material in one semester, so do not get discouraged if your grades are not what you think they should be even though you are keeping up with the material. Do not be afraid to ask Dr. Advis or the TAs for help, everyone is very willing to help and is genuinely concerned about your success in physiology.

2011, Fong Nancy. I took systems physiology with Dr. Advis twice. This class is far from easy - you have to commit a lot of time to it, especially because it's over the summer. His class pushes you to look at a ton of information and determine which parts are the most important in building the big picture instead of memorizing a sequence of events or a bunch
of statements. There are a lot of details, but some are more important than the rest. The most important concepts and details will have the most slides in a presentation. Always ask yourself "why is this important?" and "how does this relate to what I learned already?" as you are studying. Actively take notes in class (if you can't catch something in lecture, listen to a recording or ask for help). Dr. Advis and multiple TAs are always willing to help you out if you don't get a concept. Don't be afraid of asking a dumb question or saying something wrong - they'll push you in the right direction. What I also found helpful was making a study group with a few people who were focused on learning the material: we studied on our own, then met up to take turns explaining a concept or talking through details, which was helpful because you know you really understand the material when you can successfully explain it to someone with the correct usage of terminology (explaining as in linking WHY x will happen given y conditions...it's not reciting sentences straight from the book from memory). The first time I took the class, I fell behind on the readings and relied too much on memorizing all the details. I passed the class, but was definitely not pleased with my grade. The second time around, I scored towards the top on every exam by forcing myself to find the main idea before looking into all the details. Best of luck!

2011, Calabro Lorain. First and foremost be prepared to learn, interpret, understand and most importantly comprehend material. Memorizing will not help you in this course, and you will benefit in the long run from the knowledge you obtain by pushing yourself to learn like you’ve never learned before. It is very important to come to class, be awake and ready to ingest everything Dr. Advis says. There’s a purpose for all the stories (“beware of single bars”, “if you scream I don’t listen”, they’re all important!), and I found recording each lecture to see if I missed anything was very helpful. Take notes and be cognizant of the things he repeats, there’s a reason he stresses things more than others and understand them in every way possible. I did find that making a chart was helpful, but you must revise it, a 30-page chart full of hormones can be intimidating and hinder your studying. As Dr. Advis says try to make single sentences out of his lectures, or the chapters in the book, they will generate the main concepts and will drive home the points that you need to know. If you are having trouble with the material ask questions, and use your TA’s they know what you’ve been through and are amazing! Lastly, do not, I repeat do not get behind in the material, keep up, do the readings and put every ounce of effort you can muster into this class. Be prepared to test your limits and learning capacity because you will succeed if you truly want to, and will be better off for it. Knowledge is power, and after this class you leave a champion.

2011, Monique LaCourse. He is not so scary! He will probably always come off as intimidating, I mean the guy has a DVM and PhD, that will always be intimidating. The key is he does not always mean to come off as intimidating, but you should always take him and the TAs seriously. Sorry TAs and Advis, but use and abuse them. Always get a jump-start on everything if at all possible because it is very difficult and always detrimental to get behind in this class. Read the textbook, check out other textbooks, and read studies and experiments. RECORD the lectures and sit in the front!!! Go to his office hours seriously and from the VERY beginning, he will teach you how to study for his class because otherwise, eh you will not do so well. He is also a very understanding guy to personal situations. The biggest piece of advice though that could have helped me is go to his office hours even if you are behind, it is ok he will help you and motivate you to catch up and stay caught up. GOOD LUCK!!

2011, Pazdan Beata. I took Animal Physiology and Endocrinology with Dr. Advis during Spring 2011, and I must say that I have learned more during this semester than I have in a year of my other classes. While my other courses taught me to memorize the information I was learning in order to succeed, Dr. Advis taught a method of learning that left relying on memorizing information to the minimum. This method taught us to think and stressed building off of our previous knowledge to learn new material. In order to do well in these classes, you must: 1. Go to class and take notes! I found that using a voice recorder was helpful since it
allowed me to actually listen in class and understand the concepts instead of writing word for word what was said in class. 2. Do the Recitation Questions when they are assigned and submit rough drafts every week! Not only will they force you to keep up with the material, it will allow you plenty of time to edit them. DO NOT leave all of these questions until the end of the semester! I also found the Interactive Lab software to be helpful for these. 3. Keep up with the readings! I found that a great motivation to keep up with the readings was to stay active/contribute to class discussions. Knowing what is going on in class really helped the information stick and allowed me to clarify anything that I had trouble understanding. Use the class time to ask questions! 4. Develop an active studying technique! Like Dr. Advis explained in class, everyone can read the chapter and trick themselves into believing they really understand the material. I found that writing summary sentences for every few paragraphs I read, writing questions, making a table for the hormones, answering questions at the end of the chapter, or explaining the material to someone else was helpful. Do not just highlight the whole book and expect to really understand the material! Lastly, be prepared to work hard, and best of luck!

2011, Smetts Monica.  
First and foremost realize that this class is difficult. It is presented in a whole new way of thinking for some of you. Although it may be difficult at first, embrace this new method of learning (it will help while trying to study the massive volume of information in this class). I would recommend reading all of the chapters, attending lectures, and working on the recitation questions weekly. Especially in regards to the recitation questions try not to fall behind however, if you do, never be afraid to seek help in office hours. Ask questions if you do not understand something. Ask questions if you think you DO understand things; you will realize there is always something else you could learn about. Go to office hours (whether they are offered by the TAs or Dr. Advis). Learn to think about why something is the way it is instead of just memorizing it; memorization will not help for a majority of the test questions especially when you begin integrating the systems. Finally, although it may seem impossible at times, hard work and an open mind will help you the most in this class. Best of Luck!

2011, Keil Allison.  
I cannot say enough positive things about the course or about Dr. Advis. Admittedly, it helps that I had a strong interest in the course material prior to taking the class, but the style in which it is presented exceeded my expectations. Dr. Advis opens your eyes to a new method of learning that I feel will serve me well in graduate school, and as a result, I am confident in saying I have learned and retained more in this class than any other before. There is no question that the course is not "easy," but it is absolutely manageable with diligence and perseverance. Being a Rutgers students, you will likely come to this class with preconceived notions about Dr. Advis and may even find him initially intimidating, but I ask you to form your own opinion, rather than listening to the words of others and most importantly, get to know him! He is a very humble, sweet and brilliant man, who is very accessible and eager to help you if you show him that you are truly interested. In short, I highly recommend the course and wish you well on your endeavor! P.S. Make the hormone table! It will really help you in keeping the large volume of information organized...

2011, Riddle James.  
This is the most difficult course I have ever taken at Rutgers, and also the most important one. Most students are accustomed to getting through their coursework and exams simply through brute force memorization (usually the night before exams), only to forget almost everything they learned shortly afterward. I cannot stress this enough, you can not succeed in this course, nor properly understand/learn the material, through memorization (flash cards / staring at the book or slides for hours / cramming the night before / etc). Take Advis' advice: spend your time thinking about the material constructively. Organize the material into main points and focus on those; trying to stuff every last detail into your head will only drive you nuts, as there is not nearly enough time for you to memorize it all. This course requires a very different way of thinking than most students are used to, and many will find it difficult at first. It is important that you take advantage of the resources available to you if you are having trouble
understanding the material, most notably office hours and the TA's. Advis himself makes every effort to be as available as possible to his students; do not hesitate to attend his office hours if you have a question. He may seem intimidating at first, but I myself have found that 1 on 1 conversations with Advis are very helpful and go a long way toward filling in the gaps in my understanding that could not be patched with lecture. The same goes with the TAs. Do not ignore them, they have all taken this course before and understand what you are going through. If nothing else, don't underestimate this course. All the methods that you may have used to succeed in your other classes will not work here. Please try to understand the way of thinking Advis is introducing to you. It will not only help you in this physiology course, but in every future course that offers such a vast amount of information, especially those in veterinary or medical school. Thank you, Advis. Your way of thinking is difficult but it certainly made this class a lot less stressful than it could have been.

2011, Sera Bayruns. This course is good practice for the MCAT and medical school classes, as the professor claims that he utilizes old MCAT questions. Examination of case studies was interesting. This class is not simply memorization of endocrinology, but application of medical endocrinology. Students should be made aware of this before signing up for the course. Additionally, I suggest investing in a recorder and both the blue and white books for this class. The money is worth it. While the blue book (the textbook assigned for the class) is good for general understanding, the white book (Hadley and Levine) is a huge help in answering the recitation questions. The majority of information on the lecture slides is taken from the white book, sometimes verbatim.

2011, Kristen A. Maryak. My best advise to future students would be to keep up with the reading and recitation questions. Read the chapters more than once and take notes. The power point slides are good as a review of the material after you already know most of it. The questions are there to help you learn the material, not to memorize concepts. These questions are linked up in a way as to be related to what is being taught. Use outside sources if the book does not make things clear to you and don't be afraid to ask for help from the TAs.

2011, Maimouna Solly. If you plan on taking Endocrinology this semester it WILL be challenging even if you have a light course load. This class is hard not because of the material, but due to the fact that you have to think in this class. You cannot just read and just memorize everything, you will have to get the overall punch line Dr. Advis is trying to convey, and focus on more important topics than others. If you listen to Dr. Advis and his advice on coming up with a studying strategy, you will be fine. Form a study group with just one classmate and review the material it will really help you in the long run, and get help from the TAs that's what they are there for. REMEMBER everything he repeats is important, pay attention in class, be ready to learn about the body in a way you have never learned before. Lastly, I believe if you go in with an optimistic attitude, you should have a very rewarding experience.

2011, Jasmine Blackwell. If you are considering applying to Medical School or Veterinary School, I STRONGLY recommend you take this course! It will prepare and train your mind to think in a way that will carry you to excel in your studies. Be prepared to work and study the HARDEST you have ever done before!!! Memorization WILL NOT help you for this course, because there is just too much information to retain. Speaking from someone who is a Biology Minor this was the MOST CHALLENGING class I have ever taken! I would STRONGLY advise you to keep up with the chart of hormone story lines because it WILL help you understand how each hormones function, as well as the relationship of all the hormones intertwined. Ways to ensure you will pass the course are; again keep up with the storylines of ALL the hormones, join a study group, use the TAs for the course and lastly go over the punch lines of each lecture and understand how they connect to each of the lectures.
2011, Nadia A. Shamsi. Instead of talking about how to approach the material (which I am sure Dr. Advis or the TAs will explain), I am going to talk about making the best use of office hours. I will talk about this because I feel most students can really benefit from going to office hours and it can definitely make the difference between getting a better grade vs. a lower grade. I know it is the most HARDEST and INTIMIDATING feeling to first walk into office hours. Most students feel that they will have stupid questions. Just know that this is not true! When you finally get the courage to go to office hours, know that you will come out knowing more than when you came in. Even if you think you have trivial questions, come anyway, just to get in the habit of it! I know when I went to Dr. Advis’ office, I felt nervous. However, his office is very comfortable and once you start talking to him you realize that he wants to really help you to do your best. Meeting with Dr. Advis and the TAs will help you make connections in the material. So, instead, of memorizing different sections of the material, it is important to view the material as a whole, as a bigger picture. I definitely went to office hours for animal physiology and am kicking myself for not going for endocrinology, which I took earlier! So take advantage of the various office hours that the TAs hold during the week and GO! No excuses! =)

2011, Michael G. Fontano. If you've come this far to read the letters past students wrote, you are already one step ahead of everyone else. This course is going to test how well you can truly learn and use knowledge, rather then simply memorize it. Unless you have a photographic memory, I highly suggest taking the time and effort to learn the mechanisms and understand how it is that each hormone works in the body. You should definitely make a table of hormones you have discussed in class and upgrade it before each exam, using it as your study guide. Though I personally did not go to any office hours or talk to any of the "student helpers", for anyone who has trouble with the questions or feels like they are getting lost in the class, talk to one of them immediately. The material builds up very quick and unless you understand the basics and follow along, you will fall far behind and it will be very difficult to catch up. Honestly the class is not as evil as Advis puts it out to be, as long as you have the correct type of mindset to understand his punch lines and to absorb the knowledge he gives you. Some students will innately do better then others, and some will feel like they will never understand. He is a philosopher of sorts, giving you the pieces of the puzzle but no picture to match it up to, leaving you to discover the image slowly by repeatedly trying until you find pieces that go together. If you expect him to EVER bluntly tell you an answer to something, you'll be waiting a long time, even on the last day he answered our questions with questions of his own, leaving it up to us to decide whether or not we thought we understood. There is a lot to be said about his class, and I'm sure there are many other students on this website that will describe every little detail to you. As for the weekly problems, try to get every one of them done at least a day before they are due, having feedback helps a lot at the end of the semester when you have to go through and edit every single one for the final hand in. If you want to work hard, get them done way in advance and hand them in several times, but don't go crazy over it early on since its going to be confusing at first. Somewhere by the 4th to 7th week though you should have a good understanding of what it is that he wants you to give him for the weekly problems and you should see a lot of OK's in your feedback. If you still feel confused by that point or still see "please answer my question", then spend a couple of hours in his office and talk to him person to person. If you can show him you are trying hard and willing to work, he will point you in the right direction. -Make him your friend not your enemy, and you'll avoid giving yourself a brain aneurysm.

2011, Hira Hussain. I just wanted to give some advice to your future students: try your best to take as many courses that Dr. Advis teaches! I wish I could have! Dr. Advis's method of teaching is by far the only method taught at Rutgers University that has encouraged me to learn rather than memorize the material in class. I want to emphasis this to all your students. I know some people might feel like you don't have to follow the active learning format in order to learn the material, but you should! It will benefit you so much rather than cramming or trying to memorize information. Do the weekly assignments ON TIME, ASK QUESTIONS (as
many as you want, Dr. Advis and his TAs are not only helpful they also make you comfortable enough to not be scared to ask more questions) and the most important tip: follow the active learning format!! It's not difficult once you start it and it's so helpful. If you don't start it from the beginning, you'll regret it towards the end! Thank you so much for all your help Dr. Advis, your method of teaching has given me the learning techniques to do great in medical school! Great job!

2011, Eric Yesner. I signed up for this course with the expectation of learning strictly about the endocrine system and hormones. I came out of this course not only with extensive knowledge of hormones and the endocrine system, but also with a significantly improved understanding of ALL physiologic systems and how these systems closely interact. I would have been content memorizing various hormones and their functions, but the testing style of Dr. Advis makes the memorization method of studying inferior. Dr. Advis' teaching and testing styles encourage one to develop a complete understanding of physiology. The realization in understanding the big picture has helped me more than you can imagine not only for this course but for my other biology electives as well. As reluctant as you may be to take Dr. Advis' recommendations to form complete sentences, make tables, and answer the weekly questions as you study, put your pride aside and trust Dr. Advis. Going to office hours really helps too. Dr. Advis does not give out any answers during office hours, but guides you on how to find the answers yourself. I'm not going to lie, this was frustrating at times, but I am ever so thankful for it today. If you take advantage of everything this course has to offer, you'll have an opportunity to not only learn new material but to learn better techniques on how to learn new material. For the first time in a while I feel truly rewarded not only by the grade I earned in this course, but also with the studying techniques and knowledge and understanding of physiology that I know will serve me well in the future.

2011, Kathy Schlist. Here are some pointers that helped me out in Animal Physiology; I hope they'll help you out, too. Read the book. Read all of the chapters that are related to lecture. If possible, read the material before the lecture. Check in with a TA before skipping any chapters. The TA's should also be able to point out useful images that you should be sure to understand. The weekly questions will get easier throughout the semester, not because the questions get easier but because you will better understand how to answer them. You'll also start to see what Dr. Advis means about writing sentences to understand the material. It will take some practice, but you'll get it. If possible, talk with a TA or someone who's done well in the class so that you understand how to approach the questions. This will save you a lot of frustration. Also, really do your best to do re-submits by the following week. You will be glad that you did. Keep up a good attitude. This is a difficult class. It's even difficult for the students who appear to be doing well. You probably won't get the grades that you'd like to on the exams, but keep trying. Try to focus more on how much you're learning and how cool it all is and try not to get too bogged down thinking about your grade. If you're putting in 100% effort, you'll get a B or an A. It will not serve you to develop a bad attitude about the workload and the difficultly level. Finally, don't be intimidated by Dr. Advis. He's gruff, but he really enjoys teaching. You'll see it more and more as the semester goes on. Go to office hours. Answer questions and speak up in class. Sit near the front - he really does have a tendency to mumble! He doesn't think that you're stupid, but he knows that you don't know and will push you and challenge you - kind of like an athletic coach.

2011, Ashley Levinson. To future students that want to actually understand the material from Dr. Advis: First, I hope you don't have any other hard classes, because this class will genuinely take up all your time. I think the easiest way to succeed in this course is to utilize class-time and office hours to their fullest. Sit close to Dr. Advis so you catch every word he says. If you miss something, don't be afraid to interrupt. The more you ask questions during class as he goes over each topic, the more you can ensure you actually understand it and remember what he
says. He won't get annoyed but will respect you for your interest in learning the material. He will even have a direct conversation with you right in the middle of class. Use slides as guidelines, but listen to his words, they are the golden ticket. His jokes will be annoying at first, but after the first test you'll realize that they are valuable. Every bit of practice is helpful: the questions in the book, the weekly questions, Internet videos and the lab. Even if you don't register for the lab (which really isn't necessary), go to every class just for the opportunity to talk. It's just another chance to go over the material and another chance for you to make sure you understand it, especially when he walks you through the recitation questions, when they get really hard. The labs themselves are definitely worth doing, especially as review before the exams. He will use material directly from some of the experiments and they reinforce what you've learned. There is no new material, just more practice! Finally, don't get discouraged. You WILL do badly on your first question, the whole class will have a low average on the tests, but the point is to understand the material, your grade will be curved accordingly. He is not out to trick you, if you understand the material, you'll be fine. Trust Dr. Advis, he will guide you in the right direction for your questions and tests. Utilize his office hours. Schedule it like a class and go over your recitation questions until they are perfect and you'll ace the test. Good Luck!

2011, Rotem Kahan. This class will be the best class you'll take at Rutgers. It's hard but Dr. Advis actually teaches you how to think! Following his “circle” is useful in class and as a practical tool for figuring out where and what can go wrong in the body. Also, you'll notice the organization of his weekly questions: what is the structure and its function?, how do you know the function is related to the structure?, name the level of organization?, and the two feedback mechanisms?, can be used in other science classes. It really helps when you think in this format. I used it in my biochem class to create neat study guides of what the teacher said. Generally, answering questions a) picking the structure and b) designing the experiments, are the most challenging questions. I wrote a general outline of how Dr. Advis and the TAs lead you to get the answers, but go to their office hours it really helps. For a) be careful because in some questions Dr. Advis actually gives you the structure. When you need to pick your own. Use the circle and condition / symptoms given in the question as the stimulus. Then find what senses the stimulus? And so on. Note that an enzyme or receptor can be the sensor, integrator and effector on a molecular level of the circle. For b) designing experiments. Research an idea you have. To get to that idea: Think about preparation. How will you get the structure in order to study it? How can you see the structure in order to measure it? How will you measure the structures effect? Think about its function to answer this. Then for the three experiments think about: How could you inhibit the structure? Can you block or destroy the structure? (be careful with destroying some structures because the organism could die, and that won't prove anything). Can you inhibit the function (the structure’s target)? (for example, if your structure activates an enzyme, how can you inhibit the enzyme?). Answer the questions with a chemical and physical method (like removing the structure). It can also be through a comparative study, where in one group is exposed to the structure and another is not (this could be useful in later questions.). Good Luck!

2010, Shilpa Dutta. Anyone reading this should know that they will learn more in Dr. Advis’ class (whether Systems Physiology, Animal Physiology, or Endocrinology) than any other class taken at Rutgers. I have taken Systems with him over the summer of 2010, followed by that fall Endocrinology. Although Systems does not have the Recitation questions, I ended doing better in Endocrinology because I learned its foundations so well in Physiology with Dr. Advis. So, yes, it does help to have a physiology background! Second, you will have to work very hard. I'm talking about recording lecture, going to every lecture and taking notes, listening to recordings and taking notes over it, reading the book for gray areas (it is especially helpful for the recitation questions), and of course studying so you can understand the material and NOT to memorize it! Dr. Advis wants you to actively learn and that is the best way to do well in this course. For physiology, read the book! It helps a lot. For endocrinology, I thought the book was a good supplement. As for the recitation questions, I won't lie, I was not very confident about them
when I handed them in. I do think I worked on them as much as I could and since I ended up doing fine on them, I will say that you just need to get used to the format and type of answers he is looking for. Always remember, concise is better and don’t give extraneous information—just answer the question! Trust me on that one, I got plenty of “Please answer MY question” comments back because I really just was not answering the question… until I finally got it. So just make sure you keep up, do the work, and you can expect to gain A LOT from this class! If you have any questions or need help for anything, I also highly suggest going to the TAs or Dr. Advis. Go to reviews, office hours, ask questions after class about something you’re not sure of. They all want to help you and seeking out help on the material is a good idea.

2010, Stephanie Baptiste

Endocrinology is a great course. You will learn valuable topics that will extend into your graduate studies. Learning such a complex subject in a semester is a challenge. The first thing you should do is research and read about the subject before you attend the class. Having a good background is key to success in this course. The second thing you should do is to get a study partner or form a study group. Having someone to bounce ideas on helps you remember and corrects any wrong ideas before the test. Honestly, this was one of my favorite classes. Good luck and have fun!

2010, Chris Sangiovanni

This class (animal physiology) was definitely one of the hardest classes I have ever taken. Although this class covers some of the same material as general biology, it will take an entirely different approach to be successful in this course. The most important thing I learned was to prioritize the material. Assign relative importance to each of the topics presented and spend larger amounts of time on these topics. To figure out if a topic is important look at the lecture slides. If there are multiple power point slides concerning a specific subject then you should know it. Also make the most out of office hours. Use this time to figure out how to write recitation questions and for any material you do not understand from lecture. In this class, it is not good enough to simply know the material in the book. You must apply the information if you want an A. Good luck with your class, work hard, and don’t get discouraged.

2010, Franzesca Tolentino

Don’t listen to Professor Advis when he tries to scare you out of the class during the first day. This class is hard but IT IS PASSABLE, as long as you read the book and learn the IMPORTANT parts. You’ll know what is important in the book by GOING to class. This will lessen the load of material you have to learn. Another advice is USE YOUR TAs!!! They can clarify or focus in on what you have to learn. Plus they can help you with your weekly questions. A tip for exams: do NOT be too trigger happy when answering--you have to analyze and go through every option (watch out for the word "all"). Also, answers to questions might not always be straight out of the book, so learn the concepts and THINK LOGICALLY when you choose an answer. After you take exams, make sure you go to Professor Advis’s office hours to go over them. This allows you to get a better grade since all his exams are HEAVILY CUMULATIVE. If you review your notes an hour each night or integrate them into your life (e.g. when you’re about to sleep--think "melatonin") there will be less to "memorize" and it will be more interesting. Plus, you’ll actually be glad the exams are cumulative because the material just gets more complicated as the semester goes on. I was really skeptical about the whole "this class is not a memorizing class", but towards the middle of the semester I started to understand what Professor Advis meant. You will learn how to study in this class. By the end of the semester you’ll learn how to condense 20 pages into one sentence. This was probably the best thing I took from this class. -GOOD LUCK, don’t get discouraged, and have the willingness to learn!! (^_^)

2010, David Rutenberg

Don’t take for granted what Dr. Advis tells you. The best advice I can give you is: Make the tables of hormones he will tell you to make and do the work he asks you to do by writing your weekly answers and constantly sending them in for his comments. This will help you get a really clear picture of how the hormones interact in the body in a very clear and concise way. If you do this right from the start, you already secured yourself a B or an
A in the class. Even if your table is disorganized at first, it's OK. Just write SOMETHING about the hormone and fix it later. Just try to grasp the repeated concepts you will see for each hormone, because this class is all about repetition. When I started the class I did not do any of this... I just studied my usual way that always worked for me, which unfortunately didn't work at all for the first test; I did very poorly. Afterwards I took Dr. Advis' advice on the table idea and pulled my grade right out of the gutter!! It's OK if you have never seen this stuff before. The only science background I came into this class was General Bio and General Chem 1 and 2 and was still able to do very well; so don't be discouraged if this sudden new information seems daunting to you. It was hard for me in the beginning and I know it will be hard for some of you. Please take this information from someone who has gone through what you will soon go through with consideration and know that this class can be beaten!!

2010, Yanela Arias. My advice for the next students taking this class (endocrinology), which most likely include myself, is to do and follow the chart from the beginning it is so helpful. It is truly a mistake not to organize yourself like that, it was definitely one of my biggest mistakes that I wish I could take back if given the chance. Also reading the book and following the guidelines included in the lecture notes are really helpful. A lot of time must be dedicated to the class in order to do well, can’t fall behind. Good luck!

2010, Mohammed Rahman. These comments are based on my mistakes in the endocrinology class. Be serious about this class. If you think to take it easy and just study a week before an exam, it won’t work. This class can be easy if you want it to be easy, and it can be hard if you make it hard. Being up to date with the material, trying to understand the concepts is the strategy to do well. Memorizing won’t help, there is too much info to memorize. I would strongly recommend to go to the TA’s, they can help you out a lot. Go to them every week. And please, please, please do the weekly questions......even if you think, you have no clue what's going on, just do it, regardless if you are right or wrong. Go to the TA’s for help, or go to Dr. Advis himself, he will tell you what to do. Do not decide to do weekly questions at the last moment. Do not think, other students know what they are doing and you not, believe me, other students are probably as confused as you are. Doing the weekly questions, reading the book, keep going to Dr. Advis, are all keys to success for this class... Good Luck, and again I am telling you learn from my mistakes... I wish that what I am telling you guys, I had applied myself.

2010, Shahar Shmuel. Endocrinology is a very challenging course; it requires a lot of time and effort. Make sure you attend all of the lectures and take notes. I found that it was helpful to record the lectures with a tape recorder and then listen to them after class. Read the chapters in the assigned text, but don’t be overwhelmed by the details. Have a good physiology textbook on hand to help you review concepts as they apply to the material presented in the course. Make your own notes based on the lectures and the assigned reading and then condense your notes as much as possible; understand and see connections between the key concepts, rather than simply memorize isolated facts. Prepare your notes in advance, so that you have enough time to review them. Also, realize that the weekly questions carry the same weight as a multiple-choice test, so you really need to treat them as the fourth test. Therefore, answer the weekly questions in advance so that you have sufficient time to get feedback. The answers aren’t graded until the end of the course – so spend the start of the course submitting a lot of drafts and making mistakes, so that you learn how to write and edit your responses. That way, you’ll be prepared and have enough time to focus on the more difficult questions at the end. Best of luck!

2010, Chrystal Chang. Be prepared to learn a lot, but you must put in the work to get the full benefits of this course. Recitation questions may seem difficult in the beginning, but after you understand what Dr. Advis is asking (it may take 3 or 4 questions), they are doable. Try to submit them more than a week ahead of time so that you have the opportunity to get more than one reply back from Dr. Advis. You should definitely attend lecture so that the slides make sense.
Instead of trying to memorize every little detail and write down everything Dr. Advis says, extract what's important and summarize the slides. I only used the book to clarify some points or review some physiology. Go to office hours when you need help. Dr. Advis is helpful in making you think and preventing you from becoming an automaton spouting out random facts. Don't expect to be given the answer; just pointed in the right direction. Despite the frustration at the beginning of the course, I am truly thankful for Dr. Advis' method of teaching, and hopefully you will be, too!

2010, Cindy Xue. This class (animal physiology) is like rock climbing a precipitous cliff without a harness. If you let up for even a moment, you'll fall behind and never be able to catch up with the work. My advice is this: stick with it, don't give up, and most of all ASK FOR HELP. Utilize Dr. Advis and the TAs—they're there for a reason. Dr. Advis is definitely an intimidating man, but only if you show no effort in class. If you put in the effort to ask him questions and attempt to learn, he will never turn you away. Also, be prepared to finish the text in less than a month, but DON'T focus solely on memorizing! Dr. Advis constantly says, "you cannot memorize in this course," and while it's true, what he really means is that if you focus on the underlying patterns that are present in the biological system, it shaves down SO much material you'll have to memorize. This class makes you work for it, but it leaves you with study tools that'll help you for the rest of your academic career.

2010, Janet Poku. The most important thing to understand is that this class is not your average science class. What do I mean by that?. In most science classes all you have to do is memorize the material and you would be good. Not for this class, memorization will not take you anywhere in this class, seriously. To make it in this class you have to UNDERSTAND the materials and you will be good to go. Make sure you answer weekly questions in a timely manner, don't wait till last minute to do them all at once. You need to think them through well to answer them, so if you wait to the last minute to answer them your answers will be "so, so". Good Luck!

2010, Nadia Akhunzada. Overall, I think animal physiology was one of my favorite classes. I have to say that it was really hard (even harder than endocrinology and organic chemistry =] ). But it was also rewarding. I also think its great how the class is taught by forcing us to think about the material. I think the main concern that scares students is the amount of material. Given so much material, it is often hard to know where to begin. But if students want to get the most out of this course, they cannot be afraid to make mistakes. They have to just "dig in" into the material. Another tip I try to do myself, was to think of each hierarchy as a "story." This way, I am not focused on memorizing every little detail, and instead, I concentrate more on learning the material and how they connect to each other. It is really important to connect each hierarchy to each other in endocrinology and physiology.

2010, Ryan Gallagher. You are about to take one of the most informative and challenging classes you will take during your undergraduate years. Animal Physiology will require a great deal of your time; much more time than you are probably used to dedicating to a single class. The amount of time needed to succeed in this class was indeed a surprise for me when I took it. But contrary to popular belief, it is possible to do well in this class if you take my advice. First, don't be afraid to seek help, especially with the recitation questions. Resubmit them as many times as you like, because every resubmition includes advice to improve your answers. Don't be afraid to get it wrong when first answering these questions. Improving these wrong answers is part of the learning process. Don't just memorize definitions and pathways. Be able to apply and connect the systems with each other. This comes in handy when answering the recitation questions and for the exams. This may seem like a lot, but you really have to know the big picture of each topic. Pay attention to punch-lines. If you are having trouble finding the big picture of the topics, don't be afraid to go to office hours and seek help. Review sessions by the TAs are also very helpful. I have found those to be extremely beneficial. Finally, if you are taking
another demanding class, such as Organic Chemistry, handling the coursework of both courses will be a challenge. My advice is to attend classes, budget your time, and try not to fall behind.

2010, Edmund Arthur. Prof Advis is a really nice man and very interesting. Don’t be scared of him the first day of system physiology summer class. What he tells you is good for you and you basically have to work very hard in this class to do well. I had to work full time and take this class, so I went over what we did each day and read ahead too. To me it’s the only way you can do well because you build on what you learn and once you understand the basics you are good to deduce the bigger stuff. DO NOT MEMORIZE, no need to say this twice because you probably are going to hear it more than a hundred times from Prof Advis. MAKE SHORT NOTES when you study and use those as quick study sheets before the exams. Good Luck and I wish you all the best.

2010, Kevalbhai Patel. Dr. Advis is a great professor. Taking his Endocrinology class will really change how you study; the exams force you to know the material in and out. His exams are completely different from any that I have ever take at Rutgers; they are in a simple format (Which of these is correct or Which of these is wrong) but without knowing all aspects of the subject you will not be able to answer the question. I found myself frequently writing on the test to justify why I chose one option over another. The things that he teaches and the way he makes you learn them, will stick with you unlike other subjects that you may have previously taken. He makes you tie in, parts from the first lecture into the 2nd to last lecture, so that you know how everything integrates together. If he answers your question with a question then you know that it is something important that can be connected to something else that was previously mentioned. MEMORIZATION DOES NOT HELP IN THIS COURSE, SO DO NOT WASTE YOUR TIME MEMORIZING PATHWAYS AND MECHANISM OF ACTIONS. If he repeats one thing over and over again, it is probably really important. Be prepared for his class. All teachers probably tell you to read and come prepared for class, well this is one class that you want to be prepared for. The more questions you ask the more he will help you out and the more that you will understand. Everything that he teaches is not straight from the book so go to class and take notes and pay attention to what he is teaching. Good Luck and enjoy Endocrinology.

2010, Kinjal Desai. Systems Physiology is a great class to take! Professor Advis teaches in a way that makes you logically understand what you are learning. Yes, you do have to study a lot and don’t just memorize chapters because the course covers too much material for that. Listen to Professor Advis when he tells you how to study because it will make your life a lot easier!!! The chapters may seem intimidating at first but stick with it because Professor Advis and the TAs are always up for answering questions and reviewing material. GET A RECORDER because it will become your best friend. In class, focus more on listening to what he is saying and process it DURING class instead of frantically trying to write everything down because you’ll end up missing the whole point of the lecture. Definitely take your own notes as you read chapters instead of doing it at the last minute. Use both his lectures and the book to study for the exam, and enjoy his jokes :)

2010, Eugene Ketselman. Dr. Advis makes it a point to force you into learning to study correctly. The first day of class is meant to scare you, and everything he says about how difficult the course is and how much time you need to put into it, is true. However, if you honestly put time into the class and follow his advice, you can be successful. The high majority of every exam comes directly from what he says in class. However, there is absolutely no way you have time to write out everything in class, and it is often really difficult to hear him in a large lecture hall. So my recommendation is to get a digital recorder. He allows students to put their recorders right next to him when he teaches so your recordings will be very clear. Before the next class, you have to listen to the recordings at your own pace and take notes on all of the main information. Dr. Advis repeats all of the most important information multiple times throughout every lecture.
So the more he says it, the greater the chance that the topic will be on the exam. In addition, by listening to every lecture twice (once in class and once during your own time) and writing out all of the notes, you will be amazed at how much you have actually learned by the time it comes time to study from the notes you made. My last piece of advice is to pay close attention to the big picture of every topic. Dr. Advis is not big on making you memorize tiny details. It is all about "punch-lines." In this course you must learn how to rate the importance of every topic, and focus on the primary information. Good luck!

2010, Leslie Sanchez. After finishing this course with Dr. Advis I know what hard work really means. This course isn't easy but if you take the time and organize all material from each lecture, each cumulative exam won't be so bad. Don't leave studying for last minute that's for sure. It does help a lot to bring tape recorders to go over things you might have missed in lecture.

You will have to study every single day to do well in this class. And try to put an effort from the beginning because if you don't you will definitely fall behind.

2010, Jaime Gibson. I was faced with taking this course as my last course before graduating. The only reason I did as well as I did is by studying the way that we are told to study by Dr. Advis. It is a LOT of information in a short period of time and just trying to memorize everything is going to frustrate you. Thanks to studying the way he told us to I will be graduating. Do it. It might suck but you do learn.

2010, Thomas Chan. If you think this is a class (summer system physiology) where you can start studying 2 days before, think again. In order to pass this class you really need to read the book religiously. Outlining important topics and actually writing them down really helps. Dr. Advis always says you need to understand the material rather than memorize it, listen to him. What helped me get through this class was actually looking at a system as a whole and asking why things happen and what causes things to happen. For instance the heart, why does cardiac muscles contracts and what causes it to contract. You really need to study literally every day not just from the book but also from his lecture notes. Even though his lecture notes are sometimes confusing and full of pictures, he highlights a lot of facts and those are the things you should really concentrate on. Good Luck!

2010, Tracy Ngo. Dr. Advis is not like any other professor at Rutgers. He forces you to LEARN rather than MEMORIZE. This is best when taking Systems Physiology because I'd assume if anyone wanted to take this course, it's because it's relevant for more than one class in the future. His exams are structured for you to THINK rather than REGURGITATE. That means instead of memorizing all the little details, you learn about the big picture and then keep rambling on until you get the correct little detail using the correct physiological term. Dr. Advis also habitually rambles during class; if he says one thing, he'll keep referring back to previous lectures or future lectures. That means it's probably best to read through chapters before, but as like every other less motivated student, reading through chapters before class may not actually happen (but reading the textbook is a necessity!). However, I would highly suggest at least skimming through the chapter and learning the bold words and their definitions so that you understand what Advis says and how each thing relates to the other. Then when it comes to studying for the exam, DO NOT leave it for the last minute, and study with a friend (or with a TA)!

Systems Physiology is a course where there's plenty of basic information that you think you know/understand, but then, you actually don't. Studying with a friend forces you to reiterate everything you need to know by teaching / reciting it to someone else, making sure that you understand it yourself.

2010, Ruchit Shah. So you want to get an A? Fair enough, its not hard at all, I'm sure Dr. Advis will agree too, JUST DON'T MEMORIZE! Dr. Advis is one if the nicest
professors you will come across in your undergrad life. Sure, the class is demanding and you have to, I repeat, you have to study for a minimum of 3-5 hours a day. This class is a different one because it does not promote memorization like other science classes do. There is a lot of material and even if you do manage to memorize the entire book you will definitely not get an A. The key to this class is to understand the main concepts, or the "big picture". After all, this is your own body. Learn to imagine stuff. If you are one of those typical students who sits for hours trying to "by-heart" material then, I'm sorry to say, but you will be repeating the class. Dr. Advis's exams, however, are really challenging. They are not hard by any means but just worded very tricky. All the answer options are basically true or false statements so if you have learned the main concepts, you will be good. After the exam, if you think there was something wrong with the questions or answers then you can go ARGUE with him too. Try your best to convince him physiologically and not verbally or emotionally. Once again, DO NOT MEMORIZE. Hope this helps- Good luck!

2010, Daniel Renaud. This class (summer system physiology) is demanding. Dispel any notions that you can get by just memorizing what you need to, hours before the exams. This does not work. In order to succeed you must dedicate yourself to understand the material, not just memorizing it. Come to lectures, pay attention to what Dr. Advis tells you, especially regarding anything he refers to as a "stupid joke." Chances are that understanding that "stupid joke" is a key in understanding the material being discussed. Read the text. After you read, write down in your own words what you think it is you just read. After that, go back and read the text again! Match it up to your words, make sure that it makes sense to you. Foremost, and I cannot stress this enough, understand that your background in biology and chemistry is critical in this course. I found it very difficult getting by in this class because it had been a number of years since I had taken Biology, and I suffered as a result. Buy the text early and familiarize yourself with the first 5 chapters, even before the class starts. This material is considered to be material you have learned in biology and chemistry. Read it, understand it, and get a firm grasp on it before you attempt to learn more. I cannot stress this enough: this class is challenging and your background knowledge is crucial! Spend the time, learn the material by understanding, not memorizing, utilize the many sources at your disposal: there are many TAs to help, and Dr. Advis will always take the time to help a student he sees is trying and making an honest effort. Trust me, follow these guidelines and you should come out all right in this class.

2010, Morgan Gralla. Systems Physiology is not an easy class. If you are not willing to do the work, then it is not the class for you. However, if you are prepared to read and study - not by highlighting or reading the text over and over, but by writing - then the class is really interesting. Dr. Advis teaches you the basics of Systems Physiology. He does not expect you to become an expert on the material. What he really hopes to do is to teach you how to study. Memorization will not get you far in this course. You need to understand the big concepts, and then from that, be able to deduce the correct answer by thinking logically. Pay attention in class. Write down what he says, especially those "little jokes", like the slap in the face example. If you can explain the answer to the questions he asks in those jokes, then you know the material. Bringing a recorder to class may help as well. I also suggest you read the book before class. It is easier to follow and understand what he says in class if you have some exposure to the material beforehand. In terms of exams, go to the reviews that the TAs and Dr. Advis hold. Don't use it to study however, use the reviews to help reinforce what you know. The TAs give quizzes during reviews, which are helpful to put you in the mindset for the types of questions that would be asked on the exam. Also ask questions on anything that confuses you, because they may be able to explain it in a way that is easier for you to understand. Dr. Advis also offers extra time on exams if you come early. Do it. Use that opportunity because you want to go slow on the exam and really think about what he is asking you, and you also want time to review and double-check your answers. Lastly, if there is anything you have a question on, you can contact Dr. Advis or any of
the TAs and they will try to help you. Best of luck in this course, and I hope you will find it as interesting and get as much out of it as I did.

2010, Krupa Patel. This endocrinology class is DIFFICULT (as is evident from exam averages) -- but this makes doing well in it even more rewarding. So, how do you get an A? READ the chapters. Attend EVERY class. Review PDFs. WRITE the outline for the hormones. Go to Dr.Advis and TAs office hours and ASK questions/review exams. Don't take this class with other difficult classes -- after all this is a 400 level class. It will require you to put in a great deal of study time. When Dr.Advis says "WRITE", you might ignore it. "Ugh, writing takes too much of my time -- I'll just read the notes and that'll be enough to do well." If you do find yourself saying this, hit yourself hard and refocus. The outline is by far the MOST important component of this class. I think 80 percent of the questions come from the outline -- "what mechanism does insulin work through? Where is oxytocin produced? Which hormone works via a 2nd messenger? Which is a peptide hormone?" Point of story, WRITE, WRITE, WRITE. I made note cards for the hormones and wrote my outline on them. I also printed material from the Internet for certain topics and reviewed it. You must do all of this. Do not do one or the other, and your grade will likely suffer. But if you do everything, you should be able to do well.

2010, Daniel Fumicaldo. First make sure you have a desire to learn and master the subject of physiology. Despite the name 'Animal Physiology' this course focuses on the basics which can be applied to both humans and animals. Second, give up the highlighters. This was the most important step I took towards getting an A in Dr. Advis’s course. Highlighting is passive and it tricks you into believing you are working hard when you are not retaining any information. Instead study actively by handwriting/or typing summaries of what you read. Personally, I found it best to read two or three paragraphs and make a summary maybe a sentence or two of what I just read. Third, accept the strategies Dr. Advis uses during the course are for the best. I have just graduated from Rutgers with a 3.81 GPA and I can honestly say this man knows what he is talking about. Take his advice seriously and focus on everything he says during lecture. He will often tell “stupid jokes” i.e. the slap in the face example, the story of the women who joined the circus because she had a beard, or what happens when you scream at me. These are just some examples, but don’t stop listening when he is telling these stories, because he will and he will do it often, instead focus your efforts on trying to explain the physiology behind this story. Fourth, plan your studying so that two nights before the test you do not need to learn anything new. The two nights before the exam should be left to review his slides, the way is simple sit down by yourself or, more effectively, with a friend look at the slide and answer the question ‘why did Dr. Advis put this slide here?’ If you can answer this question you are golden for the test. Finally, don’t get discouraged about the weekly questions. They will be hard at first but learning how to edit your responses will benefit you immensely. Best of luck.

2010, Leon Schermerhorn. Do not be put off by Dr. Advis' demeanor in his first lectures, when he literally scares you into believing that it is impossible to pass/do well. He is TOUGH. His reputation for being a hard professor is well-earned, but believe me, it is NOT impossible to survive and do well. You MUST be willing to devote a great deal of time and brainpower to understanding the material and thinking about how concepts fit together. This class will challenge every preconceived notion you ever possessed about higher education. It is not a class in which you can memorize. If you try to memorize the material, YOU WILL FAIL. There is simply too much material in order to be able to cram it all in. Again, the single most important thing you can do to pass/do well is to gain a fundamental UNDERSTANDING of the material, and above all, GO TO CLASS AND ASK FOR HELP. Never ever be afraid of being told that you are wrong. You WILL be humbled in this class, and you WILL be wrong a great deal of the time when trying to answer questions. It is the mark of a mature student that they are 1) willing to admit they are wrong and 2) willing to accept constructive criticism. One thing that I gained from this class is that your pride has no place anywhere when you are trying to learn in the way Dr. Advis wants
you to learn. Put simply? Suck. It. Up. This man is a well-established and respected professor, and he knows what he is doing. You would do well to listen to him. If you do not show him the respect he deserves and take the class seriously, he will NOT help you. His methods work, and to dismiss them is a very big mistake that you will regret come time to study in veterinary/medical/graduate school. As for tips that helped me in the class, what I can say that worked for me is to, again, go to his office hours and ask for help. One-on-one, he is amazing at explaining difficult concepts, but in lecture, the message can get lost. Go to the office hours. Also, for me, it was not helpful to study in a group, only because I feel that others did not take the material as seriously and were more interested in socializing. If you can find a group that is dedicated to learning and WANTS to have in depth discussions about the material, by all means make it a regular meeting with all of you together in a quiet place, preferably not the student center (Too distracting. Believe me). As for the weekly questions ... DO THEM. They will take up a lot of time and effort to get them to a satisfactory level, but they are a wonderful way to hone your skills in "trimming the fat" from your thinking processes and how you explain an answer. They are an excellent method for helping you focus on what is the most important topic for that section and guiding you in what you should really pay attention to for the exams. And besides, they can only help you (Dr. Advis will explain). As for the lab, I was not able to officially schedule the lab section into my week, and did not bother to look at the CD. It did hurt me in some areas to not do this, as some of his questions came from the CD. Not very many, but enough. For now, these are all the comments that come to mind. If I think of more, I will send them along. To Dr. Advis...you have changed the way I think. I can look forward and honestly say that it is for the better that I took the class with you. May you stay well. I will surely see you around. I wish you the best.

2010, Taryn Fernicola. At first, Dr. Advis may come across extremely intimidating, but his teaching is very effective and you will most definitely finish the course a more knowledgeable person. To be honest, the course is tough and there is a lot of information you will have to learn, but more importantly you will have to understand this information in order to do well in the course. Dr. Advis will recommend writing sentences to help allow you to grasp the information, and although I did not, I am sure that writing these sentences will be extremely beneficial and I highly recommend doing this throughout the semester. Waiting until the last few days before an exam to start studying will put a lot of stress on you since there is so much you will have to understand, and writing these sentences after each class will force you to study and learn the material. Also, I highly recommend answering the topic questions each week and emailing them to Dr. Advis for his feedback. These count as an exam grade so take advantage of the resources you have! Although these questions seem to require long answers and be difficult, Dr. Advis wants your responses to be short and sweet but demonstrate your complete understanding of the material at the same time. I also recommend reading the book. Be sure to keep up with the readings! They will most definitely help you understand the course material better. DO NOT wait until right before an exam to start reading the book because there is so much information you are required to fully understand. Making a chart of the hormones you learn throughout the course will also help you out a lot and serve as a great reference to turn to if you ever forget something and need to look it up. You may be reading this thinking ha yeah I?m sure I can wait until the last minute to study and I?ll still do fine, but trust me, this advice will help you excel in this course without a doubt and waiting until the last minute to prepare for an exam will not give you near enough time to fully grasp the information. The exams are difficult and the only way to do well is by really understanding everything he teaches you. Also, when he repeats things in class be sure to write them down, they will be on the exam! Make sure you go to every class too because his slides are difficult to understand if you were not in class and you will miss out critical information. Before this course I did not put much time into my studies and still did well, but believe me when I say that this course requires a 100% effort and studying everyday will help you out tremendously. However, do not be frightened. What you will learn from taking this course is well worth it and the benefits outweigh the costs by a landslide. Taking this course has
taught me so much, not just about endocrinology but about how to get the most out of my education and truly understand what I am being taught. Without a doubt, I have left this course a more knowledgeable person than I was when I walked in. I hope you get as much out of it as I did, and I wish you all the best of luck.

2010, Christy Johnson.  
This class was hard, there's no denying it. But it will be a lot easier for you if you learn the beginning material really well so that the rest is just an extension on basic concepts. I did really well in the class because I joined a study group in the first few weeks of class, and it really benefitted me because there's a lot of information and you are not going to understand everything you hear in lecture. There's a better chance that you will get information from someone in your study group, and they will get information from you. Make sure you really read the book in the beginning. You may not have time to read the book for the second two exams because you WILL be exhausted from the first one. So, if you are low on time, read the slides and use pathologies, digestive processes, etc. to get a really good understanding of the hormones because if you can figure it out logically you will be so much better off than someone who memorized for the exam. You will have to pull information from various places to answer a lot of the questions on the exams, so knowing concepts really well is the most effective way to learn the material. Good luck, I felt overworked at times but I learned so much about the body and it will stay with me more than any other class. Every assignment Dr. Advis assigns has a purpose, and you will be so much better off if you experience a little bit of hell and do them. He is the best professor I have ever had, and I think anyone that is open to work a little harder to experience long term payoffs will agree.

2010, Romal Vadya.  
Let me begin with this class is hard but if you put time and effort you can make it. Read the text before going to class and then make sure you print out the notes that are online as well as chapter summaries for the book. It was very helpful for me to read the chapter first because you do not quite get all the concepts clear the first time but when i read the summaries I knew all the things to focus on. This is a great class but all in all you will have to spend time and also Dr Advis is very helpful when you approach him. He will go over answers to exam question making you answer the questions you got wrong again so you can correct your mistakes. So, overall a great class and good luck to future students.

2010, Teresa Ea.  
This course is strongly based on really learning information and forming connections. Be prepared for the biggest course load anyone can imagine, but there are people to help you so make sure you use them to your full advantage or you'll strongly regret it like I did.

2010, Neesha Desai.  
Endocrinology is an interesting and challenging course. Although it was a difficult course, I feel I learned a lot about science and how to study for similar courses. I believe that in order to do your best and gain the most out of the course, you must work hard to really understand the material. Preparing for and attending lectures, as well as answering and editing weekly questions, works for this course. I think that when you sit down to thoroughly read the book and review the notes, understanding of all course material is important. In class, you should think about and answer the questions presented. While it may be hard at first, it is a process of active learning. I hope all students learn and gain the most out of this course.

2010, LaToya McGill.  
If you are a senior and want your senior year to be easy, this is NOT the class to take. Out of all the science courses that I have taken at Rutgers, this is the only one where I had to literally read the entire book. However, I learned a different way of studying because Dr. Advis forces you to think about the material. I advise you take the weekly questions seriously. He is telling you the truth when he say, "if you cannot write it, you don't know it". In this class you will work hard for your grade. If you are up for a challenge, take this course and if not you need to drop this class and pick another one.
2010, Christopher Aydin. This is my second time taking the course. First, I took it over the summer and I did not think it was going to be as bad as Dr. Advis made it seem on the first day of class. There is a lot of information thrown at you, very quickly. If you do not spend literally 5-6 hours outside of class studying, you will not do well. That is what happened to me and why I’m retaking it during the year. This class is based on learning, not memorization. You are better off just not studying than trying to memorize. What worked for me? Learning general concepts and then supplementing them with details. Those general concepts can be applied to each one of the lectures. The concepts are pretty much the same for each lecture. Only details differs. If you can spend the time learning concepts, the details will become that much easier.

2010, Nicole Pellecchia. My advice first and foremost to incoming students would be to read the book. This is not a class where you can get away with reading summaries of chapters or certain sections of the book. Read EVERYTHING. The sooner you read the book, the more you will understand what is going on in class, and the better off you will be. Do assignments when they are due, and stay on track! Once you fall behind, the difficulty of the class may become overbearing. Come to class. Pay attention. If you listen closely enough, you will realize that Dr. Advis tells you all the answers to the exams during his lectures. He will tell you exactly what is on the exam as well. You just have to pay close attention. Also, this is not a class where you study the night before and expect to do well. You will fail. You need to study weeks in advance for the tests because there is a LOT of information you need to know for each exam. If you don't feel as if you can invest a lot of time into this class, don't take it. You need to put forth effort to do well in the class. Take notes, make tables, but write out something on every topic. Personally, I found taking notes/drawing diagrams helped me the most. Do whatever works for you. But, like I've said, there is a lot of information you're going to learn, and you probably won't retain it all by just briefly reading through the material. While the writing assignments seemed tedious at first, they actually show you how much or how little of a specific topic you know. Completing the writing assignments helped me to review what material I already knew, and also showed me what material I needed to work on. I also found that writing out the information into my own words helped me remember things more. The one thing that I regret was waiting until the end of the semester to use Dr. Advis' office hours. I should have done so earlier on in the semester because it only ended up with me stressing out in the end. If you are struggling on a certain topic, don't wait until the end. Take advantage of office hours! While the class is hard it is not impossible. You have an understanding teacher, and you will deserve the grade you receive. Good luck!

2009, Dhruv Patel. "First of all, drop this class right now. It is extremely hard to pass this class forget about an A". Just kidding ;)!!! Endo is not as hard as it seems. If you are deciding to go to medical school or graduate school, then you should not drop this class: if you think that you cannot do well in this class then you should rethink about your future plans. In order to get an A in pay special attention to whatever Dr. Advis has to say. Take notes on as much as you can since most of it will end up on the exams. He does not expect you to remember details but understand underlying concepts. GO TO HIS OFFICE HOURS, if you don't get them. He is extremely helpful; he will not turn down anyone who comes for help. On the exams, wrong answer choices, most of the time, will be wrong for more then one reason. Do not look for the absolute answer; from the overall concept you will be able to get to the answer logically. As I said before, if you want to learn in this course, learn the overall ideas not details. Learning just overall ideas such as epinephrine causes flight or fight response will tell you that epinephrine does EVERYTHING that is required for flight or fight. Just use logic. Doing so will make this class fun and your favorite one. Otherwise this will be one of the hardest courses you will be taking. Lastly, I think the Goodman book is easy and straight forward. Finally, do not wait until last day to study if you want an A. ENJOY."
2009, Michael Botros. In the beginning of the course I wasn't very comfortable but going by what the professor says does pay off. Studying hard and putting in the effort outside of class will get you the grades and by studying I mean studying from the book not the slides. The slides only provide a good overview of what the important topics are. This course is arguably the best, most interesting course I've had at Rutgers and listen to Dr. Advis because he knows what he is talking about. You'll hear this from him too but I guess it won't hurt to hear it from someone who took the course. It does not help to memorize in this class or any of Dr. Advis' classes for that matter and it will not do you any good. In my opinion, physiology, is all about understanding the material because all the systems work together. I really felt that it's worth to work hard and show interest in this course because you benefit so much and get a lot out of it. The Silverthorn book is nothing short of amazing and it makes the hardest material seem so easy and trust me, you're not gonna wanna sell it. This goes to Dr. Advis' Endocrinology course too, which I took along with Animal Physiology. It might seem like a bad idea at first but these classes reinforce and complement each other very well. You don't want to take more than two other courses if you're gonna take Endo. and Physio. though. I was a little intimidated at first but what is great about Dr. Advis’ classes is that by showing interest and studying hard you're gonna be able to accomplish what you thought you couldn't. Good luck!

2009, Erin Treolar. To all students in Animal Physiology...LEARN THE MATERIAL. This class is interesting and interactive but if you do not read, learn, and understand the material you will have a hard time with the exams. You need to be able to link the major systems of the body and understand how each affects the other. In this class you should take advantage of every extra credit, outlining assignment that you can. After submitting the outlines, I suggest you take advantage of the multiple resubmit policy...those extra points come in handy in the end. Even if there is no credit for them, you should outline the chapter by using the book and notes, then write down ten statements that you think are the most important. This exercise really helps you during an exam, when you can't remember a certain detail, but you remember the statement or silly story created for that topic. If you study every day, do the exercises, and attend exam reviews you should be able to do well in this class. If you cannot understand a topic, go to Dr. Advis’s office hours and the TA’s as well. If the hours conflict with another class, talk to them. Dr. Advis is more than willing to help you out if you want it. If you are able to take the Animal Physiology Laboratory class simultaneously with the lecture I suggest you do it. The lab is electronic and addictive, like a video game. There is a mini-quiz before and after each lab module that you print out and hand in for credit. You are only required to do one lab module for each class but any others you complete are extra credit. There are no exams but a short report each week. Dr. Advis posts a question for each week that you need to answer. Make sure you answer ALL the parts to the question and it definitely helps to title each answer with the respective part of the question. This class helps A LOT with the lecture. The entire class is devoted to going through the labs and the weekly question – which ties into that week's lecture. Many times on a lecture exam I have been able to answer a question because I took the lab.

2009, Nicole Fernandez. Taking Endocrinology and Systems Physiology with Dr. Advis have been great learning experiences for me. Although the classes were not easy, Dr. Advis taught me methods of studying and learning which made it easier to retain the material rather than just memorize it for the exams. Although the first time I took Endocrinology I barely passed with a D, once I retook it and actually came to class and listened to Dr. Advis’ advice on studying I was able to get an A in the course and also got a B in Systems Physiology. Both courses taught me valuable information that I will continue to use in my future in medicine and the challenge of the courses was well worth it! Do not register for the course thinking you can simply study the slides and get an A, come to class, ask questions and make sure to take advantage of the review sessions because they definitely help! Good luck! :)}
2009, Maria Abramov. Systems is definitely a challenge, but what you have to remember is that it's worth it, because you get so much out of it: this course takes all of the material you have covered about the human body in separate courses (biology, anatomy, neurobiology, exercise phys, etc. etc.) and integrates it in an effective way. If you study appropriately you will be able to create a comprehensive picture of how the systems in your body work interdependently and interact together to make a functional being. In order to really grasp this concept you MUST be able to understand the material—memorization does not really get you anywhere. I suggest that every new system you learn, you try and integrate it with the previous one and understand how one is dependent on the other. Many questions on exams are integration questions and so this strategy is very effective! Textbook is a must (it's a good one, too) but do not waste your time if a specific chapter was barely covered in class.

2009, Timothy Zablocki. In my opinion there are two main things that you have to do in order to succeed in the class. You must read the textbook and you must learn to think independently. Create a schedule for reading that you will follow and stay just slightly ahead of the lecture. When you read, don’t try to memorize anything, but don’t just gloss over it either. It is very important to try and understand what you are reading, to slow down during the more difficult sections where you seem to be losing grip on the material. This way you’re not just reading words, but forming pictures and ideas in your head. Diagrams in the textbook are extremely useful in that regard. A few days later when you are in lecture, you may not remember everything that you have read, but it will come back to you as Professor Advis presents it. In my opinion, taking notes is overrated. I only make small notes to myself once in a while when something truly has to be stressed or when I hear something that I may not have encountered or thought of while reading the book. This way, I am free to LISTEN to what is being said and to WATCH what is being presented, which in turn allows me to become exposed to the information in a new way, to think about it, understand it better, and develop a stronger and deeper knowledge of it. I already know where to find it in the book, so why bother writing it down. Later, when studying, you go over and re-read the material in the book again, but this time you are already familiar with it. Some sections you can skim through and you will realize that you understand what is going on. Other sections you might know are more important given that they were stressed in class and you might want to read more carefully. Memorize as little as you can, perhaps only small things that give you a little trouble. By this time you should have been exposed to the material on three separate occasions and you will only need to fill in the gaps with info that might still not be clear to you. You will learn through this natural, periodic repetition, rather than outright memorization. Work on understanding the concepts from beginning to end. Work on being able to write them out or say them out loud. I never really did any problems in the book. I periodically checked myself with some questions, but I didn’t stress the exercise. I focused more on simply understanding. Another professor once recommended to me that I explain the material to someone else out loud. I thought that this would be ridiculous, but eventually I found certain subjects coming up in conversation, such as how a muscle fiber works. So I allowed myself to go off on these overly-detailed two-minute explanations of what I understood. It made me look like Mr. Know-it-all, but it was good practice. Just do it with a sense of humor so that you don’t lose your friends. The bottom line is that you need to READ and UNDERSTAND the material more than anything else. Think about it independently of others, but also find time to bounce the material off of others. Don’t expect it to just make sense all by itself by coming to lecture. Understanding the concepts and connecting ideas is far more important than memorizing or doing any of the book exercises.

2009, Heather Chamberlain. To Future An. Phys Lecture and Lab students: Seriously, good luck. This will be the first class you stop being a typical student and start learning. Memorization will NOT work, there is too much information and you will get caught up. Professor Advis does a great job of relaying the information in ways you can connect different systems together, use it!! I found that reading the book and taking my own notes from the passages to review worked best. I wouldn’t bother taking notes during lecture. I started the semester doing
that but never referenced them. Also, I found myself trying to write everything down so quickly I would miss important concepts Dr. Advis is trying to get across. If you are not taking the lab, take it. It is the most work I have done in my life for a 1-credit course but it's fun and you can work out the areas you are struggling with. There will be times you want to throw in the towel but keep pushing!! The last bit of advice I would give is to participate. Do not be scared to answer something incorrectly in class (I did often) because that's the only way you will really learn the material. Good Luck—you can do it!!

2009, April Kim. My advice for future students of animal physiology:
As everyone already knows, this course is very complex and demanding. This is not a course where you can get away with just memorizing facts. It requires a high level of actually understanding how each system in the body works. There are numerous details that are specific, yet very important. No one can stress this enough: DO NOT FALL BEHIND. This is definitely not one of those classes where you can study everything at the last minute and do okay on the exams. Simply keeping up with the work on a consistent basis will help you immensely in the long run. When you're reading the textbook, you should focus on Dr. Advis's lecture notes at the same time. Pay extra attention to the sections in the book that match the lecture notes. If you need extra help, do not hesitate to ask the T.A.'s or Dr. Advis himself. He is very kind and understanding and he is more than willing to help you. Good luck.

2009, Manpreet Ghurman. I think overall this course was good preparation for graduate school. I plan to go to optometry school. I feel like even though this class was hard it was only a glimpse at what I will have to do in the future. I think that if someone reads all the chapters, understands each concept and can teach it to someone else, they will do very well in this class.

2009, Danielle Prozzo. Dear Future Students: The biggest advice I can give you is to study, study, study, and when you think you have finally got it, study some more. You never truly stop understanding the concepts from this class, since the human body is a very complex system. I do not suggest getting the Sherwood book, because the material is so condensed. The reading tricks you, because you think that by getting Sherwood's book, you will save yourself study time, but instead it winds up being more time invested, since you have to really read Sherwood's material over and over again. Dr. Advis will really help you if you show your interest and desire to learn. Go to the office hours, they help. Stay calm, the material can be overwhelming, but if you stay calm and keep reviewing it, you will understand. Also, the class will go more smoothly if you go to class. When you go to class you need to make sure you, you review the information before you even go to class, because just being present in class, will not help you. You must have some prior understanding of the material before attending class or you will be in left field when Dr. Advis "reviews" the material. Having understanding will be very beneficial for you, so when he does review, your comprehension of the material will click.

2009, Stephanie Siwczak. To Animal Physiology Students: I can honestly say that this is one of the most difficult classes you will take here at Rutgers...if not the hardest. It is a lot of work, but very rewarding. Listen to Dr. Advis's little jokes (ie: slapping your boyfriend). It helps you remember things...it really does! I made the mistake of not taking the lab...but if I had the time to redo this class...I would take the lab...I have heard that it really adds a deeper understanding of the lectures. If I can give one tip besides studying hard, it would be to go to office hours. Dr. Advis is a really nice guy and will try his best to explain the more confusing topics to you. Trust me...I spent enough hours in his office asking tons of questions and he always found a way to explain it to me in a way that I understood. Also: don't go crazy trying to know every little detail...think big picture of things. Thinking too detailed will just get you in trouble. Good luck guys! If you put your mind to it, you'll do great!
2009, Lauren Korecky. To Future Students: Animal Physiology is a challenging course not because of its content but because of its volume. You cover a large amount of material in a very short time. A few things that helped me succeed in this class were: 1. Make time in your schedule to take the lab. It provides excellent review time, in a smaller, more personalized setting, as only about half of the students in the lecture take the lab; 2. Attend every class and take good notes. Also, don't be shy! Answer as many of Dr. Advis' questions as you can. Not only does this help you learn the material faster, but he'll frequently ask the same questions multiple times over the course of the term. This is similar to how his exams are written; 3. Keep up with the textbook reading. The topics covered are very comprehensive, so missing a chapter of reading is like missing a week of class; 4. Attend every TA review session, and contact the TA's for ANY problems. The TA's are very willing to help, and have taken the class before. The review sessions are very laid back but still allow for learning. The TA's provide you with tips on how to attack exam questions, and will use diagrams, tables and charts straight from the text book that best summarize each concept. They are a terrific resource, so take advantage of their aid. Good luck, and may the force be with you :)

2009, Samantha Ritzer. To next semesters students... BE PREPARED. On the first day of class, when Dr. Advis tells you how to achieve success in his class, DO NOT take it lightly. This class is not a typical class. It is not a class in which you can depend on a lecture and notes to do well. The lectures are just guidelines to help you organize your way of thinking. You HAVE to read the book... and if you think that you will do less reading and less work if you get the Sherwood book, you are wrong. The Sherwood book is a harder, longer, and a more boring read than the Silverthorn. I would definitely recommend getting the Silverthorn over the Sherwood. You HAVE to attend lecture. Dr. Advis will give little jokes and point out what the big picture ideas are. If you do not attend, it will affect your grade. Also, You have to WRITE! This is the best way to really understand the material and to not just memorize it. Memorizing the material will get you nowhere in this class. I suggest doing labs and to make sure you have enough time to submit them and then edit them. It's the only way to really know if you understand what Dr. Advis wants you to. Another recommendation I have is if you are having trouble understanding something, look it up on youtube. There are some very good movies that give you a visual and help you understand better. That helped me a lot. Despite how scary this class may seem now, it passes by in no time, and you will find that you have learned an amazing amount of information. By the end of the course you won't regret taking it.

2009, Daniel Fiumicaldo. Next year's Endocrinology students: As you might have heard Dr. Advis' class is unlike any other you have experienced so far at Rutgers, and I stand by this statement. Success in Endocrinology does require hard work but Dr. Advis makes sure he gives all his students multiple opportunities to ask for help, so utilize them to the best of your abilities. Here are some tips to help you with your studies: First, realize that memorizing is going to make your life a living hell in this course so focus your energy on understanding concepts first! and pick up the details later; Second, attend all lectures and recitations to the best of your ability because Dr. Advis will repeat important concepts multiple times so by the time the exam roles around you should have a very clear indication on what's the "important stuff". As an aside Dr. Advis will tell "jokes" during lecture (i.e. The bearded lady who got a job in the circus, the monkey falling down from the tree, why if you scream I won't listen to you, why the old lady broke her hip etc the list goes on and on) this part of class might seem stupid but focus on why he is telling these jokes and try and explain the endocrine basis behind them; Third, don't freak out the first couple of classes because the lecturers are really general. These lectures are to teach you basic concepts that will reoccur throughout the semester, so sit back relax and LEARN THE CONCEPTS! Fourth, Dr. Advis will give a suggestion about making a table of all the hormones you come across and information regarding those hormones in order to study for the exams. Realize that this is just a "trick" to get you to write what you have learned. Don't worry if you don't want to do the table or can't find the time, but make sure you are studying actively (by writing and not just reading) in some sense because that is going to be the best and most efficient way to
learn; **Fifth,** As a professor Dr. Advis seemed unapproachable at first because it seems he has such extensive knowledge about such a wider variety of topics. If you feel the same don't worry, asking him questions is the best way to get to know him because he will work with you until you understand an answer; **Finally,** the most important change I made in myself that helped me succeed in this class was to realize why I was taking this class in the first place. I learned that taking any course here at Rutgers was about me learning and not about the grade I received. I know this sounds cliche but if you can accept that you enrolled in Endocrinology simply to learn it takes a lot of the pressure off taking the exams! In any case I hope you found this helpful, Best of luck.

2009, Ivan Parra-Orlandoni. This class is one of the most interesting and difficult classes you will take in your entire undergraduate career. I'm sure you've heard it from dozens of people, but it cannot be stressed enough how important this class is for educational growth. Endocrinology presents one of those rare undergraduate level classes that really force you to acquire knowledge, not just facts. From day one, if you approach this with the lax attitude of "I studied 4 hours for my general bio final and I got an A on it, this'll be exactly the same." or the slightly neurotic attitude of "I need to read and memorize every little detail of this course to get an A1!", you will find yourself in a world of hurting. You cannot cram for this class, you must work at it since day one. Conversely, you cannot possibly memorize every detail of this class... don't even try. You'll just end up giving yourself an ulcer, or you'll end up in a state ward somewhere. I came into the class with the "I'm too smart for college" attitude. By the time the final exam came around, I had finally uncovered one of the many secrets of this class: Endocrinology is smarter than you, 100% of the time. You need to prioritize the knowledge that you learn. You need to have a general understanding of the material BEFORE lecture. And, above all, you NEED to take advantage of every single opportunity Dr. Advis gives you. I would not recommend this class for people who are taking a very intense semester schedule... You will regret it. Finally, the most important thing to remember is that you aren't just taking this class to get the grade: whether you knew it or not, this class is teaching you more than hormones and pathologies. It's giving you a taste of the graduate level coursework, and that is the most valuable lesson of all.

2009, Jennifer Hanke. My suggestion for future students: Animal Physiology is a hard class but not an impossible class. If you want the good grades you need to put in the time and study and actually read the book. Also, you cannot just read all the chapters once through. The first time you read the chapters read everything so you understand the concepts of the system. The second time you read them through focus on what Dr. Advis mentioned in lectures as this will be the material that the exam concentrates on. Also, you can not merely memorize the material. Although it is not necessary it is highly highly recommended. It helps you understand the important concepts of the chapters and by understanding the concepts you will not need to memorize as much detail. Also, like he says if you cannot write it you do not know it. Memorizing will not work for this class because there is just too much to remember, so it is vital to actually understand it. Finally, go to his office hours and abuse the TA's. They are very helpful. Thanks for a good semester. I learned a lot.

2009, Katerina Shakhnovich. As I remember myself reading previous students’ comments, here is the very first suggestion - take it SERIOUSLY. Everything that has been written above and emphasized about the course is unavoidable truth. Secondly, take the whole course even more seriously. From the VERY FIRST CLASS! Once you fall behind, it is very hard to catch up, so procrastinating and not showing up for lectures really aren’t smart decisions especially if you want to get a good grade. And even if you just want to pass the course, it still requires some work and commitment. Before the first exam it might seem very unclear of how to study and what to expect on the test, so here are some ideas: 1) Talk to TAs. Even if you don’t have a clue about the material, go to TAs after the first lectures instead of right before the exam.
2) Get a basic understanding of the topic. Write it out! Prof. Advis will give and option to send him sentences after each lecture, but even if you are not going to do this, just write it when you are studying for the exam. 3) Don't get stuck with the little details of the test items. Think globally! Tests are hard and long, and you won't be tested on anything that wasn't covered in the lecture or that Prof. Advis didn't mention (so once again, go to the lectures). 4) Go to the office hours. Don't think you will look stupid and only smarties come to office hours, it's not true. Dr. Advis is not just a very knowledgeable and experienced professor, he is also wise and clever. He will understand your problems and make everything possible to not fail you unless you really want to fail. There will be provided all conditions for you to learn and study, so if you fail, there is really no one else to blame except yourself. Overall, as it's been said, – yes, this course is challenging and a bit time-consuming, but at the same time it is by far the best course I've ever taken, and certainly the most rewarding and worthwhile. And the end, you will be proud of yourself, and in couple years you will probably be thankful to Dr. Advis for having you as a student. Good luck, Spring 2010!

2009, Nestor Gomez. To all future students - This course is not for the faint of heart, the employed or the lazy. It covers challenging material, a LOT of material, and you will be tested in exasperating detail. So expect to throw yourself head in first and not get out until the semester is over (if you want that A anyway). The following were my personal challenges: 1. Interaction among the autonomic nervous system and its target tissues (it's NEVER "excite only" / "inhibit only", unfortunately); 2. Respiratory System and it's relationship to Kidney and Cardiovascular; 3. The endocrine system and how it touches EVERYTHING: 4. All of the above systems and their relationships and how they change radically under pathological conditions; 5. aaaaargh! If you're not running out the door, then good! There is hope yet: you will have one of the best professors at Rutgers University to help you along the very treacherous way. Dr. Advis is a fantastic conveyer of ideas and concepts and he really covers the space between the question ("what can affect cardiac output") and the myriad of ways this question can be answered ("well, sweating"). See? that "kinda" makes sense initially, but when you go through this course, you'll really understand how exactly sweating can cause a change in cardiac output. And not only that, you'll think of other systems that might be involved (kidney, thirst behaviors, respiratory, endocrine..) and what the body does in order to fix the problem (retain fluids!). This example is one of the simpler "integration" examples, the "circle interacting with circles" as he would say it. A word of advise, PARTICIPATE. Don't be discouraged by his challenge questions (in particular the "so what?" or the "ok, keep going!") they're there to bring into focus the ideas that you might be missing...and it's always fun when you're right!!! Anyway: read, participate, sit near the front (mostly because his voice is very "relaxed") and go to class. Good luck!

2009, Bilal Shaikh. This class one of the most difficult classes I have taken here at Rutgers. This is, however, no reason not to take it. The class requires a large amount of attention. If you manage to give it that attention, you will find that it encompasses aspects of many other science classes. Below are some suggestions for you to consider: 1. Physiology is a very integral aspect of this class. I would suggest taking some sort of physiology course, or reviewing it for this class. If you know your physiology well, you can easily cut your studying time in half; 2. Read the textbook before the lectures. Lectures are to review material you should have already been familiar with. If you go to lectures without reading the material, you'll find them much more complicated and boring. In regards to the textbook, I have used both of them. In my opinion, Goodman is much easier to read but is difficult to use as a quick reference (he tends to present information in longer paragraphs). Hadley is a bit harder to read, but is really good if you just want to look something up quickly; 3. Use this class as an opportunity to learn about your own study habits. It is impossible to absorb all the details of the coursework in this class without little study tricks. Professor Advis stresses making a table. I personally did not find that helpful, however, you need find some way to learn the information; 4. Go to his reviews. Once you go to one, you'll know exactly why I suggest it. The class moves really quick. Don't take breaks from studying. You'll have time to relax after the course is over.
2009, Geoff Ming. To next year’s Endocrinology class- I can’t stress to you enough how different Dr. Advis’s class is. Not only is it freaking hard, it also requires a completely different method of studying than other classes. I took the class twice- having gotten a D the first time around. Having failed the first time and getting an A the second, here is some advice: 1- Understanding, not memorization, is KEY. If you attempt to memorize everything, you'll either fail miserably, or spend obscene amounts of time studying; 2- The class is extremely cumulative. You need to have a working understanding of each hormone system in order to tie things together later. By the way, you'll need to tie things together later; 2- Learn the mechanisms of hormone action!! It's an extremely effective way of remembering and understanding how entire classes of hormones work; 3- Most importantly, don’t fall behind. Don’t fall behind. Poor performance on the first exam means you'll be playing catch up on the basic material, which you NEED to know in order to learn new material. Don’t wait for the first exam to realize how hard this class will be; 4- Lastly, go to office hours. Dr. Advis is extremely generous with his time, and will go over old exams with you, which is vital to correct your mistakes and fill the gaps in your previous knowledge – something necessary for learning the new material properly. In the interest of avoiding tl;dr reactions, I’ll end here. But I’ll leave you with this: Dr. Advis requires you to learn, not regurgitate. I know, because I’ve tried both ways.

2009, Jared Sussman. One huge tip that I can give future students for both physiology and endocrinology is read the chapters before the lecture. This makes the lecture so much more valuable because you already have a grasp on the information. After the lecture you should go back to the chapters and reinforce the information that Professor Advis emphasized in class. Without doing this, the information goes in one ear and right out the other when learning it in lecture and when you study for the exam.

2009, John Myung. Endocrinology course will force you to get rid of your old studying habits. The volume of information from this course is pretty intense, so memorization cannot help you out in the long run. Although you will learn a great amount of material, this course only covers on the basics of endocrinology; this course should give you an idea of how difficult it would be in medical school. The best way to do well is to follow the professor’s advice. His learning method definitely frustrated me at first; I was only used to memorizing since it worked on previous science courses that I took. Eventually, you will realize that by using his method, all the hormones have similarities based on its properties and can be divided in to several categories. The teaching method (called active learning) forces us to sort out all the information given to us. However, the most important part of learning is to constantly edit and make corrections to your notes. By doing this, you will continue to update on your lecture notes and enhance your understanding. Another way to do well on this course is to simply ask for help. The professor and TA’s are immensely helpful in answering question and clearly elaborate on certain problems. This is important because Dr. Advis does seem to go fast during lectures and people sitting near the back might not be able to hear his voice. Having said that, he allows his lectures to be tape-recorded and is available for help; e-mailing him questions is also another option. I strongly suggest that you put a lot of effort; make sure that you devote some time since this is not ordinary 3-4 credit course. On a side note, for those who are taking MCATs, I have seen several biological science passages/questions related to endocrinology.

2009, Josephine Orrico. To begin, I would like to say that Systems Physiology is not for the faint of heart or those who are looking for an easy course. It is an intense course that necessitates massive amounts of reading, time and self-discipline. You read the WHOLE book and it is best to be prepared the first day of class and to have read the first few Pre-Requisite chapters. I also must impress upon you the vast amounts of time it took to read and study. I took the class in the summer and it was comprised of six weeks of class, four days a week, with two
hours of class, followed by an hour or two of office hours every day. I read an average of two or
three hours every day. Fridays to Sundays were spent studying, especially those weekends
before the test I averaged about 15 hours a week just in studying and you DO have to study that
much for the course. It is not a memorization course, it is a course where you will have to
UNDERSTAND the effects of multiple inputs and outputs on the respective body systems. The
course was truly an eye-opener. It makes you plan and organize your study habits to make the
most of the book and the topics emphasized by Dr. Advis. A few pointers for those who want to
take this class: 1. Read the book before class; 2. Use Dr. Advis’ notes as a guide on what
sections to re-read when you study. However, some of his notes are NOT in the book and you will
have to do some independent research. (Wiki is a wonderful thing!); 3. Study continuously for 4-5
days before the test. DO NOT wait until a day or two before. It will not be enough. Again, all the
tests are cumulative; 4. Go to office hours and ask at least ONE question on a topic you are
unsure on, or a comment you did not catch during lecture just to get in the habit, and if you do not
have any question, go and just listen to others; 5. Get a tape recorder and use it especially
during Dr. Advis review sessions where he gives the topics of the questions on the test; 6. Get
some sleep before the test; 7. Make sure you eat something before each test, they are long;
8. START THE TEST EARLY. Dr. Advis allows you to begin the test early if you think you need
the time. The tests require a lot of thought and reasoning. It took me three hours to take one of
the exams so try to get there early if you can; 9. If your taking the class in a summer semester,
you should not take any other intensive course at the same time. Systems Physiology was a very
demanding mistress there was not time for studying anything else; 10. Good luck!

2009, Sonia Sharma. Systems physiology is not the type of class where you
should choose to review and study materials at the last minute. Starting day 1, review your lecture
notes and begin studying. Don’t just memorize facts and details, read the chapters, make flow
charts, draw pictures or anything else that will illustrate the connections made between the
systems. I personally found flow charts to be extremely helpful. Another useful suggestion is
reading ahead. Come into class having already read the chapter. This way, when the same
material is presented in class, it is reinforced. Then when you leave class and attend office hours,
it will be reinforced once again while there. This will certainly allow you to consolidate the
information. Before exams, the notes taken during readings and lectures, along with the flow
charts made during the week should be reviewed. You WILL NOT learn anything or do well on the
exams if you choose to do this two or three days before the exam. Being successful in systems
physiology is all about staying on top of the material from day 1, if you slack off a day or two, it
will be extremely difficult to catch up. In short, I recommend keeping up with the readings and
taking notes on your own every single day after lecture.

2009, Araba Addaquay. Want a good idea about how fast paced this course is?
Well, imagine taking Orgo. and Orgo. Lab at the same time during the summer. I did this last
year. Think that’s fast? Well, that isn’t as fast as this course, even more especially if you are
taking another course with it like I did. Anyway, the first week is overwhelming what with covering
5 chapters in 2 days, even if it’s just review material. Try to set a goal of covering 2 and a 1/2
chapters a day. You will be at most a day behind for just a day, but you will be current with the
schedule by the next class. It is easy to feel helpless when you think you just can’t accomplish a
feat and so throw the towel in. At least 2 chapters a day sounds reasonable. You will have to read
the text book because the slides are filled with tables that are a compressed summary of the
topic. Whenever a lecture is over, briefly glance at a slide you cannot summarize on your own,
even if you have not read the required chapter for that lesson. If you cannot summarize it, it’s a
good idea to go to Prof Advis and tell him to go over the slide with you. Why wait until the exam?
You know you have a gazillion reading to do and not enough hours in the day. It doesn’t take long
to go over something you don’t understand after lecture. 10-15 mins spent there seems like a
better idea than pushing it on a to-do-list that may never happen. Answer the questions at the end
of the sections. I wasn’t able to go through the interactive learning, but I hear it is good. You need
question sets to determine whether you understand the material, so I guess that will help in addition to the questions at the end of each section. Get with the TA to review stuff at the end of the week. Get with some students to review stuff, even if it’s once a week. And so you don’t feel too burnt out, get an ice-cream. But, come back to the material, go over it with some of the students, and write whatever knowledge you have on it. You will begin to generate more questions, which probably means you are learning and will consequently find yourself doing well in the course. After every exam, email Prof. Advis immediately the questions you had trouble with, and while reviewing the exam with him, jot down the topic sentence for the problems you had wrong. Write about what you know about that topic sentence. Try to complete this task before the week is done and email it to him, so you don’t make those same mistakes on the second exam. Remember, he does not care what the answer is, and he won’t give you credit for telling him the right answer. Dude, he already knows what the right answer is. All he wants to see is that the student can demonstrate knowledge of that concept in Physiology that he had wrong. Lastly, it is not a good idea to take another class with this one, but some may feel they can do it. Keep asking yourself why with every answer you come up with when studying. It is also a good idea to tape your lectures, especially during an exam review. You will need that last tip. The very best to you all.

2009, Felipe Da Silva. “If you cannot WRITE it: Admit that you do not UNDERSTAND it”. Seems like a typical phrase used by all professors and usually cliché. However, it couldn’t be any closer to the truth. Professor Advis is a straight shooter and it may rub students the wrong way. When taking the summer course he will tell that if you’re taking other classes or working a lot of hours you WILL FAIL. Although you may not like to hear that from your professor, it is true. Systems physiology summer course requires continuous attention throughout the 6 weeks. The best way to pass this course is not to memorize, but to understand the concepts. In order to do that, read before class, take notes on the chapters, and most importantly write your “sentences”. He will let you know what those are in the first day of class. If you can’t write your sentences, you don’t truly comprehend the material and memorization will not work. The exams are extremely hard and require you to use the concepts to come up with the answers. My suggestion is to put life on hold for 6 weeks and dedicate most of your time to this course. Good luck and write.

2009, Lawrence Kim. Systems Physiology is a very demanding course. It is by far one of the toughest courses I have taken at Rutgers, and with it being a summer course, the condensed format made studying very stressful and demanding. The way you have to approach the class is to first off attend all the lectures. Missing lectures it basically not an option. In doing this, you will have been familiarized with the concepts and you will be able to figure out what the professor, (JP Advis), is stressing for the exams. It is smart to read the chapter, (skimming it) before you come to class. During class take very detailed notes. It may be hard to understand Dr. Advis at times, but you can tape record in his class. A rule of thumb is for every 30 minutes of lecture, you should have a page of notes. After class, if possible, read the chapter over again. This reinforces the entire lecture. When studying for his exams, read all the material. Even if it did not seem to be especially prevalent during lecture, it is always important for exams, as reading the entire amount of material will give you the background behind every question. The exams are tough, but if you put your effort, and you are truly actively learning about the subject, then you will do fine. I learned so much in this class, and the material really was interesting. The textbook is really detailed and easy to follow. Just remember, this course was never meant to be easy, but there are ways to help yourself.

2009, Ji-Nee Lo. This class should have warning and caution signs all over it. In fact, these student comments and emails are designed to provide you with all the necessary tips in taking on a challenging class like this. I took Systems Physiology during the summer, and said good bye to relaxing beach days or late nights out for 6 weeks. To my dismay,
this is what I had to do to even stay in the class. It was by far the most challenging class I have taken, and for many reasons.  

1. **Be efficient.** There is no time to fool around in a fast paced class like this. Systems took real dedication, and even if you put the time in, that does not guarantee you'll do well. Learn to study effectively and get an idea of what to study and how to master the concepts. There are so many details in the lessons but if you don't have the main concept understood, you are just wasting your time. Take the time you study and be efficient with it; look at the diagrams, charts, pictures, and graphs in the book. Look at the slides Dr. Advis provides, and take the advice of the TAs as to what the major concepts are. There are so many resources to use that there shouldn't be any excuses.  

2. **Read the exams carefully.** Test taking is taken to a new level in this course. Read each question carefully and work through the problem, step by step. Don't jump to conclusions or rush. There is no easy way out; there are 5 choices and 100 questions, you're never going to pass by blindly guessing.  

3. **Accept that you have the power to make or break your grade.** There's no one that will force you to do well or even help you if you are not internally motivated. Everything you do in this class is up to you. Self-studying is the essence of learning and if you can't master it, no one else can do that for you. Best of luck in this class. Take it for what is it; a challenging, but truly educating opportunity.

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**2009, Priya Ramachandran.** Be prepared to take one of the most challenging courses of your life! You will enter a field where the language is completely different and the days are long and arduous. But in the end, if you stand up to the challenges, you will be rewarded beyond belief. I have learned how to push myself further than I thought possible, spent many MANY hours studying, and incorporated the class into everyday life. The best advice I can give you is listen to Professor Advis's studying tips. What you have done in the past is likely not the most efficient way to truly learn the material. He knows what is the best method. Listen to him! Also reach out to the T.A's because they are reason I am passing this course. They prepared quizzes, had review sessions, and were always there for us and understood our frustrations. Just remember, the more you talk about the material you learn, the better you will understand it. In order to succeed in this class, you have to be disciplined, make a numerous amount of sacrifices, and just not give up. So if you do land up taking this course, the only thing I can tell you is good luck... It wasn't an easy journey, but in the end, I am so proud that I rose to the occasion and did not let it get to me.

**2009, Nestor Gomez.** First things first: Effective communication is rare. Especially between professors and students, and particularly at Rutgers, so naturally I entered Dr. Advis' summer classes with a healthy level of academic cynicism! I expected him to be like many others: sit there, go through a bunch of slides, lull me to sleep, and then freak out as exam approaches. I was (happily) proven wrong. Dr. Advis, besides a researcher, is an incredibly good professor. He has established methods of conveying information that not only convey said information, but make you think about it, digest it, and ultimately own it (though you may have a hard time wrapping your head around his favorite learning concepts initially). You will hear him say things like storyline and hormone table, and punch line, or his favorite so what, over and over again, and while I will be perfectly honest and say that I did not do storylines for all my pathways, for the few that I did, they are etched in stone in mind. I can tell you the ups and downs of insulin and its various interactions with other hormones without ever needing a book. So what is the moral of my story? The ?punch-line? as he?d say: Photographic memories are an ok tool for either of these courses (particularly sys phys), but they will not get you very far if you can not connect the dots (and being able to connect the dots will be incredibly useful for endo). Anyway, a short list of things **NOT TO DO:** 1- Leave readings for ?later? - (this stuff just piles up); 2- Study off of his slides (they make NO sense if you don?t understand the material first); 3- Not show up (this is particularly true for endo); 4- Talk in class (he?ll call you out on it!); 5- Not participate.
(even though his ?so what? follow ups are kinda scary); 5- NOT HAVE AN HORMONE TABLE (I mean...really!); 6- Not give enough care to 2nd messengers. They show up over and over and over; 7- Not get good sleep before a test (his questions are easy, but the pitfalls are many). Well good luck! If you enjoy a conversational style type of class, you will love either of his classes.

2009, Nicole Braccio. If you are prepared to put a great deal of effort into this course and commit yourselves to learning the material to enrich yourselves instead of just get a good grade, you will succeed by doing so. The main thing Professor Advis stresses that most students do not follow right away is reading the material before lecture. By doing this, you familiarize yourselves with the material and when he goes over it rather quickly, you are able to recognize the acronyms and hear the words better if you know what to look for. If you read the textbook, you will learn a lot because the textbook is very clear in its explanations. But by going to EVERY class, you can fine tune what to focus on and ask questions after being exposed to the material for a second time. Please keep up with your work, don't slack and think you can make up three days worth of reading in one because it is very difficult to catch up. Cramming for exams is not the answer and definitely not the way to do well in the course. You need time to integrate ideas and think things through instead of memorizing. The best way to study for exams is to gather a group of about three or four students, no more than that, and go over test questions from the reviews and be able to explain concepts to each other. If you can teach someone a topic in this class, it proves you know what you're talking about. Professor Advis is really there for YOU and wants you to do well. His exam questions can be very tricky, but if you can answer them, you will feel very accomplished. Good luck and study hard! Take this class seriously from day 1.

2009, Shital Patel. This class has made me understand what I was reading a lot more. You must understand every word you read and how it applies to the topic, otherwise reading is useless. For future students, I would recommend ranking the material because there is too much to memorize. If you don't understand something there are TA's to help. I would recommend going to them. I would say this is the only book I read thoroughly from beginning to end. This textbook is also uses less complex terms than the other physiology books available, so take that to your advantage. I would say this class has helped me truly a lot for the Mcats, and I feel it will help me in the long run. I feel like this class has made me a better studier. So for future students, this is a good foundation for learning the material and also learning how to study.

2009, Qin Wei Zheng. My primary advice is that if you are not committed to spend hours of your time studying and preparing yourself for this course, don't take it. This course would be one of the most intense courses that you will take, not only because of the magnitude of information you are require to know but also because you can't memorize your way through this course. Don't expect to pass by putting only minimal effort into this class, you must be able to organize your time and be efficient at self-studying. To prepare yourself for the exams, I highly suggested reading the book multiple times and utilizing the help that you are given. Dr. Advis is a highly approachable person and he is committed to helping you pass and learning the material, including the TAs. To learn the material, don't just use the read-memorize-regurgitate method because the information is too vast and the exams are cumulative. In order to succeed, find patterns in the various topics and link them together because learning one system is like learning another, because many of the concepts are similar but with their own variations. However, at the end I believe it was privilege taking a class with Dr. Advis because he showed me what higher-level classes are like and improved my studying skills. As a sophomore taking this class, I believed that course was highly interesting and was really worth the effort to learn, most importantly, Dr. Advis really prepared for future classes.

2009, Allan Wu. This is definitely not a course you can get by. It takes serious effort to be able to handle the material given in this course. It helps to know and apply advanced studying skills as well as textbook reading skills. Not to mention time management. The
quickly you can adapt to the first exam, the better off you will be in the future. And if you fall behind or do not feel confident, Prof. Advis’ Office Hour session is a must-go. Good luck.

2009, Erin Treloar.  
First of all I just want to thank you for a great semester. I think I learned more in your class than in any other class I took so far here at Rutgers. I found that you putting me on the spot and asking questions really helped push me to think more than just regurgitate what I had read in the book or slides. I’m generally not a talkative person and I don’t like to take risks when I do not know the information, but participating in your class made me realize that I should not be so worried about being wrong. It is also great that you are so willing to help your students understand the material and succeed. Your class is a unique experience and you should not change a thing.

2009, Samantha D. Bosse.  
My goal in taking this course was to learn what I can and earn an A in both the lecture and the lab. From the beginning of the semester I did my best to keep up with the readings and complete all assignments including the labs and extra credits. One of the biggest challenges I faced with this course was to adjust to its teaching method which was far from what I was used to. I think if I could do it all over again I would spend more time meeting with TA’s and Dr. Advis to review material. I would also use my voice recorder from the very beginning to listen to lectures again and take more detailed notes. I feel if I’d done that from the beginning, I would have picked up on much more from the beginning since the text does not include everything we’re expected to know. Although I have not learned and understood everything to the extent that was required of me, I do feel that I learned a lot in the course. It was also the most challenging course that I’ve taken yet.

2009, Lauren Barron.  
I must say, that surviving to the end of this course has both been a privilege and challenge made possible through the instruction of yourself and many office hours. The office hours were extremely helpful since several concepts were easier to learn after asking questions and discussing them out loud. In addition, I found that the extra credits helped my grade but also forced me to allocate so much time each week to making questions. Often, I couldn’t answer my own questions and had to go for extra help in order to expand on the concepts I found unclear. By challenging what I had already learned, I found that my grades went up as well as my understanding of the active learning system. I also realized that studying the material on a daily basis helped me to avoid cramming before each exam. Finally, I believe that your system of reviewing tests works since I often realized my own mistakes and how to avoid them the next time. Thank you for your consistent willingness to help including the many collections of doodles that I now have! My understanding of physiology has grown to the extent that I am proud of what I have learned. I look forward to taking your Endocrinology class in the future. Until then, take care.

2009, Soolki Park.  
For the fall class, I just wanted to let you guys know that what he says the first recitation and lecture about how to study for this class is the key to getting an A. The homework that you guys have to do is critical in getting a good grade in the class, it actually forces you to keep up and do not fall behind in the class. For us, it was a voluntary extra credit assignment and I did not take it seriously enough in the beginning and now I'm suffering the consequences. There were students in my class that had extra-credits that were in the 80’s and had exam averages in the 30’s and they ended up getting a B in the class. Even though I had better test grades, i didn't do as many extra credits as I should've and I ended up getting a lower grade. THIS IS NOT A MEMORIZE THE INFORMATION AND SPIT THE ANSWER BACK OUT ON THE EXAM KIND OF CLASS!!!!!. If you think that this is how the class is run, I suggest you think twice about taking this class. You really need to put the time and effort into this class if you really want that A. And if you fall behind, even for a week, it will be very hard to catch up. The exams for this class is cumulative, so I suggest going to office hours and going over the exam after the 1st hourly so you know how his questions are worded and what kind of questions he is asking you. This will help you indefinitely. I went to his office hours after the third exam and I wanted to shoot myself in the toe because going over the questions with him, I realized that the questions he was asking was more generalized and is a bigger picture more so than small details. And I realized that what he said in the first lecture of the semester is true, you can't ‘bullshit’ your way through this class, just because it is a multiple choice question, without knowing your information, all answers are going to seem like they are either ALL CORRECT or ALL WRONG. If you are not willing to put the time and effort and think this is like any other class here at Rutgers, then you are in for a surprise. Do not make the same mistake I did, go to his office hours, do the homework, participate in class. When you ask more questions, you will get a better picture in understanding the material and do better on the exam. You just have to be committed and you will do very well in the class.
2009, Julie Haas.

If you have not noticed already, Dr. Advis is not your ordinary professor! Do not expect him to hand you the information you need to obtain a good grade in the class. I do not pretend to “like” him in the normal sense of the word, but I appreciated his effort and his pushing. You will either listen to him or you will not listen to him, either way you will not succeed without thinking for yourself. The “voluntary” homework is not voluntary, it will change the grade you receive dramatically; you can ask any previous student and they will agree. The main goal of his lecture method is to make you think of the whole system (what you will see he terms the “circle”, effector, sensor, and integrator). So I thought I would give a list that will aid you in understanding the course and objectives: 1. Speak up, the more you talk the more you learn. Even if what you say is wrong; making mistakes is part of learning: 2. Write up the questions and answers for the take home messages of each lecture. Hint: look at the headers of his slides! :3. Take the lab with this course. It is only one credit and the write-ups are extremely helpful in understanding the material! :4. Pay attention, sit in the front of the classroom, take notes, use a tape recorder (sometimes he speaks a little fast and quite low), be angry if that is what will make you talk, and if you are sitting in front of him don’t knock over his coffee unless you have napkins available! :5. Textbook: he will give an option of using the Human Physiology book or the Animal Physiology book; both cover the same material but you will be able to read the Human Physiology book more readily than the Animal Physiology book: 6. Go to his office hours, use the TA’s, and for your own good review your exams. You will be told to write the numbers of questions you had trouble with so that you can email him about them. Email him the list just after your exam, when you review your exams and disagree with him about a question you can email him your case to receive partial or total credit. I am sad to say that I did not take full advantage of this; don’t make my mistake: 7. When you study, don’t just highlight the book. Read and reread the detailed information within each chapter. I found that he wants you to think on the molecular level of cellular function; understand your hormone pathways, neuronal pathways, and messenger systems: 8. If you follow my above suggestion and take the lab, “delimiting the boundaries” means you should pick a topic that you can support with 3 concepts; if your head spins with how to support your topic, you have limited the boundaries enough: 9. Being able to redraft your extra credit Q & A’s and lab reports does not mean you should wait until the end of the semester to redraft them, redraft them as soon as you get a grade you dislike: 10. WOULD YOU WAKE THE HELL UP AND PAY ATTENTION AND FOR CRYING OUT LOUD TALK IN CLASS! I know I probably sound like him but I promise he won’t bite you and he is a nice person underneath all his bluster. I hope you listen to me and that you take away from this class as much as I did!

2009, Elisabeth Leahy.

Well you had asked me to email you with some things I didn't like about animal physiology, so here it is. I want to start by saying that I REALLY enjoyed the material and the method of thinking and problem solving you encouraged throughout the semester. I can safely say that the Animal Physiology textbook is the ONLY textbook I have read cover to cover since I've been at Rutgers. Though your exams were very difficult, I thought each one of them was very fair, based on how challenging the material is and how much detail we went into. Kathleen was extremely helpful in helping us study and I definitely spent the majority of this semester studying for animal physiology and believe me, my textbook was never far from my side. I really enjoyed learning about all the processes and mechanisms in great detail that I had always wondered about. I have definitely been able to use this information and problem solving at work at the equine clinic and I will be able to use the studying methods I learned in the future. Now, for what I didn't like. Since this class was much smaller and you devoted a lot of your own time to office hours, it was certainly a better choice than systems physiology. However, we felt like if we didn't go to your office hours or do the extra credits, you assumed we didn't care about the class and then you didn't care about us ;( . That, for me at least, was not true. I didn't do the extra credits because it was hard for me to follow your lecture slides and because the assignments really did take more than a half an hour, and if we chose to resubmit, that was even more work. I was also in the lab, AND I spent hours already studying the textbook so I just did not have the time. With two horses, a job, and a few other classes, it just wasn't possible. It didn't mean I didn't care about the class and I still scored well above average on all of the exams but we felt like if we didn't take advantage of every possible office hour or extra credit, we would be penalized. I also did not like how some of the assignments were vague. I remember the first three weeks or so we were all extremelty confused as to what was due and when, I think mostly because assignments and due dates kept changing. That's really all I can think of. I'm glad you were there to push us to learn the material, but not everyone learns by constructing little one sentence reminders about complex biological processes. I know I don't. Perhaps next year, you could develop a homework option that would cater to more people's learning style, such as outlining the chapters, or assigning a specific process and having the students write no more than one page about it. That way, for the exam, they can just reread their little essay. In any case, I hope you have a wonderful summer.
2009, Ben Grobshteyn.

It’s a rarity once you’re in college to have the opportunity to truly learn to study. There is simply too much emphasis on a mass of information being sucked in and regurgitated without any of the methodology behind retaining the information explained. If there’s anything you taught me it’s that memorization is the first stepping-stone in the long path to comprehension of material. It takes you a fraction of the way, and even then should be limited to the most basic concepts. From there it becomes the task of us, as students, to actually learn and branch off from those basic concepts. Be it through the creation of ridiculous comparisons in real life or my practice of mental diagrams set in motion. For showing us that the ability to do this exists, you have all my thanks. To those of you who are about to undertake this course, I have several pieces of advice and suggestions, being a veteran of Dr. Advis’ classes: -This course is time consuming and will take up a legitimately large part of your study time. Don’t assume you can juggle it or set it aside like a secondary course to other prerequisites. There are volumes of material and falling behind by even a day puts you at an incredible disadvantage: -Come to lecture, and read the book. I reiterate, this class is not to be treated lightly. Comprehension of earlier material becomes the structure for the later material and everything is a building exercise. Later more complex concepts combine multiple pieces of information and the end of this course is essentially a conglomeration of all the material. If you avoid the book, if you think your Chemistry course is of greater importance, you will find yourself panicking at the quantity of knowledge you’ve yet to even comprehend: -Don’t try to memorize. You can’t. The textbook you’ve purchased contains an incredible amount of information. Already impossible to memorize, you have to take into account the fact that rarely if ever will your exam questions be an exact definition or simple physiological pathway. You will be asked questions that actually require you to think about the material, take the ABCs you have at your disposal and apply them to varying situations that you will then have to evaluate. -Accept Help. I know, as well as most of you, that a great deal of our college career has been us on our own with little expected help from professors. Seeking consistent aide from a professor in some cases has become counterintuitive to our nature. Well at some point you have to set aside your dignity, or discomfort of talking to superiors, and this course is a good start. Dr. Advis and the TAs will be your best friends in this course if you let them, and will provide you with information in the speediest most efficient way they can. However, they will not spoon feed you answers, and will be your job to take the material they give with the advice they provide and explain the answers to them. If you feel overwhelmed from the start do not delay going to them, and if you feel competent with the material…go to them anyway. You will not regret it. If what I’ve said has put a little fear in you, I’ve done my job. This course is an undertaking. This isn’t a regurgitation of information or some course that can be put on the backburner. Study the material, conceptually grasp it, seek help when needed, and you will be headed in the right direction. Procrastinate the readings, avoid the review sessions, and think you can simply log all the material in your mind, and you are in for a living hell in this course. Somewhere along the line an individual needs to face the realities of what is to be expected in graduate school, vet school, and med school. This course is the best rude awakening I had in my Rutgers career, and if you play your cards right it will be yours too.

2009, Nicole Demola.

I have been a student of yours this summer in Systems Physiology and this past fall in Endocrinology. I have truly enjoyed these courses and wanted to say thank you for making the past two semesters very enjoyable. I have loved to learn about physiology and I am especially interested in Endocrinology. After taking these courses, I hope to have a career in Endocrinology one day. Have a very happy new year!

2008, Shail Patel.

Endocrinology was by far the most challenging course I have taken at Rutgers. In a way, it gave me a highlight of what awaits me in Medical school. As the semester progressed, my studying methods progressively got better and by the end of it, I learned how to handle all the information. Apart from that, it helped me to understand medications some of my family members are taking and to be better able to explain to them how these medications work (e.g. diabetes). Also, the exams, even though being multiple-choice questions, forced me to read all the answer choices and in my opinion were just as challenging as any other open-ended exams. Again, thank you for the great course and happy holidays!

2008, Girish Harinath.

Endocrinology was definitely one of the most fulfilling and challenging courses I have taken in my undergraduate years. There is much information to understand and many complications that can arise from the slightest of changes in the endocrine system that, I must admit, after seeing my first exam grade, I never thought I’d be able to retain it all in order to do satisfactory in this class. There were 3 things I did after my first exam that really made the class a lot easier and I’d like to share them with the next year class in order to make their lives a little less complicated: 1) Write SENTENCES- this was probably the single most important factor in retaining all the knowledge you need to
Endocrinology is no doubt a challenging course, but there is no reason to be afraid of it. This course requires hard work, but is very manageable. There is a great deal of information, and as Dr. Advis will tell you, you cannot memorize it all. You must understand the concepts. I found that the best way to study is to: 1) **Go to class**! Dr. Advis will cover the major concepts during the lecture. He also tends to use analogies that can be helpful in understanding material. With that being said, going to lecture is not enough by itself; 2) **Read the book**. Do this before the lecture so you can ask questions during class that you didn't understand while reading. The book will also contain some information that will not necessarily be in the notes, thus reading is important; 3.) **Organize the material** from the lectures and the book into your own words. Dr. Advis will suggest that you make a table of all the hormones. This helps very much. Don’t try to memorize information directly out of the book or notes. Reorganize the information in a way that you understand; 4.) **Participate in class**. Dr. Advis will ask many questions during the lectures. These questions are meant to encourage students to think analytically. Why are things important? Why do these systems work the way they do? What are the advantages / disadvantages of these designs? Thinking about these questions helps you to understand the information even further; and 5.) **Ask for extra help** when you need it. Dr. Advis is very accessible. Go to office hours for extra help and to review the previous exams. Much of the material from one exam will end up the next exam, so make sure you find out which answers you got wrong. I found that this course helped me in terms of learning how to study. Dr. Advis will push you and there will be a great deal of information. But, if you know how to organize the information in a way that you can learn it, you will do well. Best of Luck.

**2008, Robert Ganglione.**

Endocrinology will likely be one of the most challenging classes you will take during your time here. The information is complex, as every system we talked about can be linked together in many different ways. The 100 question exams are exhausting and difficult. It is very easy to misinterpret what the question is asking. Thankfully, Dr. Advis provides all the tools needed to get an A in the course if you work hard enough for it. I believe the most important thing to do is to attend the lectures fully prepared by reading the corresponding chapter(s) of the textbook. Second, office hours and the SI instructor were both effective in answering all questions I had. Finally, Dr. Advis goes over the type of questions on the upcoming exam before the exam date. Even with this help, waiting until the last minute to study for these exams will be extremely detrimental to your grade…and there are only 3 exams. My advice is to listen to Dr. Advis: study regularly and make a table for each hormone/process you encounter for quick reference. Good luck!

**2008, Alejandro Silva.**

Endocrinology will likely be one of the most challenging classes you have to take and keep up with. The information is overwhelming and difficult. It is very easy to misinterpret what the question is asking. Thankfully, Dr. Advis provides all the tools needed to get an A in the course if you work hard enough for it. I believe the most important thing to do is to attend the lectures fully prepared by reading the corresponding chapter(s) of the textbook. Second, office hours and the SI instructor were both effective in answering all questions I had. Finally, Dr. Advis goes over the type of questions on the upcoming exam before the exam date. Even with this help, waiting until the last minute to study for these exams will be extremely detrimental to your grade…and there are only 3 exams. My advice is to listen to Dr. Advis: study regularly and make a table for each hormone/process you encounter for quick reference. Good luck!

**2007, Mark Schwartz.**

The best advice I can give to next years students is attend every lecture and take detailed notes. I relied more on my notes than the textbook throughout the course. I found that my notes covered the majority of the material that was on the exams. When I did not understand something, I would go to the textbook and read all of the sections that covered the topic. I think the best way to study for exams is to start reviewing your notes early. I started rereading all of my notes around 2 weeks before the exam date. The most important thing in this course is to NOT try and memorize everything. There is just too much stuff! Instead, listen to Dr. Advis and make summary sentences. If you make good sentences, you will be pleasantly surprised on how many questions they will prepare you for. It will take a lot of work to do well in Endocrinology, but it is worth the time. Good luck to everybody!

**2007, Mariana Vigiola.**

For Systems physiology: This is a really interesting, enjoyable class if you are going into the medical field, but it's a lot of information, especially for a summer
class. You should read the text (it’s really, really a great book) in its entirety and study the material from that day or for the next day every night. Go to class every day and pay attention; if you have a good background (i.e. from studying for your MCAT or taking other biology classes) or have already read the text relevant to that material you will have a much easier time. Keep up with the work; do not wait for the weekends or for right before exams to read—you’re covering a chapter or more a day, so you’ll definitely be overwhelmed if you don’t. All the exams are cumulative, so make sure you are learning things for good, not just for the one test—that way you will just need to review your old notes and not have to relearn them for the following exams. I took notes from each chapter in the book as I read and then used slides from class to know what to focus on. Then I took more condensed notes combining the two, and I studied those before the exams. Go over the questions you got wrong on the exams—they may show up again! Go to office hours and seek help if you need it; Advis will be very willing to help if he knows you are working hard. For Endocrinology: This is a really useful class if you are going into the medical field, but it’s a lot of information. You should go to class every time and pay attention. If you have a good background or have already read the text relevant to that material you will have a much easier time. Two classes that really prepared me for Endocrinology were Molecular Biology and Biochemistry, and Advis’ System’s Physiology. Having prepared for the MCAT would also help you have a good basis. Keep up with the work, study regularly, and do not wait for right before exams to read—you’re building up on top of what you already should know, so you’ll definitely get lost if you don’t. All the exams are cumulative, so make sure you are learning things for good, not just for the one test—that way you will just need to review your old notes and not have to relearn them for the following exams. I went to class and then made an outline with the topics and concepts covered during the lecture (from his PowerPoint slides), and then read the book to cover all the points in the outline or anything I had not understood completely. Then I took more condensed notes combining the two, and I studied those before the exams. Go over the questions you got wrong on the exams—they may show up again! Go to office hours and seek help if you need it; Advis will be very willing to help if he knows you are working hard.

2007, Alexander Neuwirth. I would like to tell future students interested in endocrinology that this is one of the most interesting classes I’ve ever taken. It is also the hardest course I have taken. In order to do well students must learn to prioritize, organize facts, and, most importantly UNDERSTAND the concepts. Memorization is virtually impossible in this course as the amount of material is overwhelming. The best way to prepare for this class is to read the book early and use the lectures to focus on the key points. It is a bad idea, however, to study by using the slides alone, as the important concepts and “punch lines” will only be clear by attending lecture in addition to reading the book. Although this is a very challenging course, it is well worth the commitment and the effort. Endocrinology will prepare pre-medical and pre-dental students for their respective standardized exams. In addition, I sincerely believe that the studying skills necessary to doing well in this course will be extremely valuable in medical or dental school.

2007, Bert Liu. Endocrinology is extremely hard. It is the hardest science class you’ll take. But that is only if you make it that way. There is a lot of material but if you listen to what Dr. Advis says about making a table and understanding the material and make sentences of the overall idea you can summarize entire chapters of 30 pages to just 10 sentences. By doing that you’ll be good to go on exams. On Exam 1 I read an entire chapter, trying to memorize, rather than understand and I did terrible. The following exams I just listened to what he said and saved myself a lot of stress and did much better. This was also the first class in my 4 years of school I went to office hours and it really helped. Office hours help a lot and I would strongly suggest going whenever you have the chance. If you go early he even offers you Snapple, what beats that? Don’t wait until you do really bad on the first exam like I did to listen to what the man says, because it really does make things a lot simpler and easier. Advis is the man! Someone who has been there.

2007, Pawel Puszczało. At first, I didn’t take Dr. Advis’ advice very seriously. Don’t make the same mistake. This class isn’t about memorization, as he is going to throw a lot of little details at you. Again, don’t memorize then, but understand how these details interact to form the big picture. Dr. Advis will advise you to write down the top ten points that each lecture was trying to get across. As long as you can write these 10 sentences effectively, you will have all the information you need to prepare for his exams. Although he gives you 100 multiple-choice questions, he actually asks you 60 questions, where the other 40 are rephrased repeats. As long as you wrote your sentences down, you have all the information you need for his exams. Just remember the “punch-lines” of each lecture when evaluating the choices; he’s not out to trick you, as his wrong answers are very obvious to anyone who studied. Go to his office hours if you can make them. Go over your old exams and learn from your mistakes. His exams are cumulative, so there’s always a chance the question may show up again, rephrased and with different choices. This is also a good
2007, Gerald Mendoza. First and foremost if you like to get your preferred hours of sleep and aiming for an A, do not take this class; especially if you plan to take this course with another hard course in the same semester. On the other hand, if you like a challenge and want a taste of how medical school or graduate school is like then you signed up at the right place. Although Dr. Advis gives you a ton of information, he clues us on what to focus on for exams by repeating slides with the same information appearing at least 3 times. He wants to see how tough you are so don't be scared in the amount of material being presented. He will give some information that may not be in the book so going to lectures is very important. One thing I want to stress is that Dr. Advis wants all his students to do well and is willing to help you if you want to be helped. If you show him that you care about the course and making every effort to succeed by going to office hours and emailing him, then he will go out of his way to help you. He is very approachable but not a mind reader so if you don't ask for help he will not help you. For example, when I took this course in fall 2007, he skipped many lunches to answer any questions or concerns we had so be appreciative of his time because he goes over anything you want. Make sure you are prepared with questions or concerns when coming to meet with him otherwise you guys will just have a staring contest. Dr. Advis will push you to a point that you think was impossible to reach; he will reset your "set point". It's a life lesson he teaches us that will pay off in the future. In addition, I advise you not to quit until the fat lady sings. For those who just want to pass with a C: - go to lectures and try to take notes - read the book front to back and take notes on the chapters – pray. For those who want an A: - go to lectures and take notes - read the book front to back and take notes on the chapters - find connections to lectures with other lectures and with chapters to other chapters - go to office hours as much as possible to review lecture, notes, or ask questions - do not skip a day without studying even if it's for 30 min. - not required but highly recommended is to buy a digital recorder and tape his lectures and listen to it again because there will be many things you've missed in that lecture; he tries his hardest to base his exams on what he says in class – and finally pray twice a day. Good luck,

2007, Desiree Shasa. I have to admit that I was intimidated to go to your office hours. I guess I should know by now after the 3rd time of having class with you that you are there to help me. I guess I did not want to look stupid if I didn't know the answer, not only in front of you but other students in your office either. I hope future students will not have this same mentality because you push us to do our best and to actually think a topic through. I also was guilty to study just by memorizing, which I think is why I have a tough time with this class. I had to break my studying habit from a way I'm used to form a new one. Although, now I try to study the way you taught us to. I hope this helps with the third exam. But anyway, I just wanted to say thanks for everything and giving me an opportunity to learn in a different way than I am used to.

2007, Sherish Jamot. Let me just begin by saying that this class seems very intimidating at first. I know I thought so. But by the end it is amazing how much you learn if you try. This is definitely not an "easy-A" class so be prepared to work hard. The key to success in the class is to understand. Use the notes as the main focus and don't just read them, try to understand them. If any material in the notes needs clarification use the book. If you need extra help on a point in lecture or any concept in general, Professor Advis' office door is always open, and I would really suggest going. As for the tests...most of the test questions are pretty straightforward, but remember to read the questions very carefully. And be sure to read the answer choices even more carefully. With 100 questions it seems like who has time to carefully read each of the questions. But believe me taking the time to read 80 questions and getting them right is much better than making stupid mistakes on all of them. And I would really suggest after each exam going to office hours to review your exam. The exams are cumulative so you can't just forget the material after you take the exam and then try to study it again for the final like in every other class. Reviewing the exam shows the mistakes that you made and makes sure you avoid them on the next exam. This is where the read the questions carefully point becomes evident. Overall this course is a learning experience if that's what you are looking for!

2007, Sneal Udavat. I took your endocrinology class back in undergrad and I am writing you this e-mail because I would like to thank you for teaching us the way you did. It is very helpful in medical school!

2007, Urvi Bhavsar and Akash Shah. Taking your Systems Physiology class this past summer was an
amazing experience for both Akash and me. In fact, after our classes ended we immediately began studying for the MCATs. As we were reviewing passages in the MCAT Biology section, Akash and I were shocked to find that we could answer almost all the questions correctly sometimes without even needing to read the passages. This made us both feel a great amount of accomplishment that was unparalleled to any grade. WE KNOW that this feeling compiled with our continued success in courses to come is solely due to your teaching methods in Systems Physiology. Thank you so much.

2006, Rick Figurasin.  
THANK YOU PROFESSOR!!! With how hard this class is, I'm glad I was able to get a C especially with all my finals during this same week as the exam. I remember you saying you have so many students that hate you after this course, but I just wanted to email to let you know that I think you're a really good professor and that you taught the course well. I know I didn't take full advantage of that (as my grades show), but I'm going to take systems physiology next semester because I really enjoy this stuff.

2006, Frederick Hanna.  
I hope that you would keenly grasp the multitude of hours I put to understand and not memorize this voluminous material. This hurt me at times, since sometimes it is easier to memorize than to understand; however, unlike memorizing, I will continue to understand endocrinology long after this class is over, and that is very important to me. About 10-20h every week (about 1-3h every day; with the exception of some weekends in which I dedicated about 10h per day) was spent studying for this class. I also came to your office hours. Also, my grade rose on the 2nd exam, demonstrating a positive trend. That said, I would immensely appreciate it if you take all this into consideration and rounded up my grade to demonstrate my appreciation of the subject, improvement, and most of all the great endeavors I put into understanding this challenging yet very rewarding course. Thank you for your first-rate quality of instruction and willingness to use your time to help me understand concepts. You made such a difficult course quite pleasant. Thank you.

2006, Mona Sodhi.  
I really enjoyed your class and to know more about you during office hours. Honestly, I have never had a tougher class! But I am very happy with my decision to take it because it was a challenge and my studying methods have improved tremendously. I want to go to medical school, so this was a really great class to have taken.

2006, Bhavik Patel.  
I know that I have learned a very large amount from your class. In fact, your class has taught me more than any other class I have taken. I'm not just talking about material that I learned, but I also learned how to study. I want to go to medical school, so I know your class has been very valuable in teaching me how to study properly.

2006, Nadia Yousefinejad.  
Thank you for the challenge this semester. I feel I'm better prepared for dental school, both in knowledge and mental endurance. This class challenged me like no other class, and I feel like I've truly accomplished something great because I accepted your challenge and was serious about it.

2006, Krupa Patel.  
To the next class: The best advice I can give you for this course is RUN WHILE YOU CAN! Just kidding. In reality, to be prepared for the exams make sure to come to all the classes and take good notes. Also making the chart that he says to make really does help but don't wait until last minute to make it. Try your best to make it while you are reading or after class. It may sound a little time-consuming but if you want the A it's something you should do. Other then that GOOD LUCK!

2006, Abhishek Patel.  
I am enrolled in your General Endocrinology course. I have had some time to rethink the credibility of my grade and have come to some conclusion. There are many excuses one can give for low performance, and most of them will be the typical cliché (i.e. "I worked really really hardddd Dr. Advis...PLEASE I DESERVE an A!") But that won't cut it. When I look back at the beginning of the course up to now, I realize Endocrinology has been the most demanding, and comprehensive course I have taken as a premedical student at Rutgers University. By taking your class Dr. Advis, I have learned to think on a totally different level - a level I have never though on before. I have started to apply this level of thinking not just to endocrinology but also to EVERY course. I approach every question or problem posed to me from every angle. I consider not just one possibility or approach, but EVERY possible one I can think of to find a solution to a question. I feel this change is one that is inevitable and required for this class. In addition, aside from dedicating most of my time to this class (which is not a privilege, but a demand for this class), I feel that even though my grades have not shown improvement (I
I have trained my mind to understand what went wrong with my solutions, so that I do not repeat those same mistakes on the final, and in life in general. The approaches I have used on the 2nd exam have been plotted and I realized that not only must one approach a problem in endocrinology from every angle, but one must be able to ask why or why not this approach does not work (perhaps there is another hormonal form of control, perhaps there is a permissive action, or perhaps redundancy, etc.). I feel that I have attained a great perspective in science based problem solving, and this new form of thinking will aid me a great deal in medical school in the future, and the MCAT test which I will be taking this January. I have also used this new level of thinking during study sessions for the MCAT, especially when it came to endocrinology for the biological sciences. I thank you for giving us the chance to be heard, and to give us a chance to decide for ourselves how we think we did. It opens our eyes and ears to the realities of this class, which has, most definitely, changed my life for the better in terms of perspective, thinking, and problem solving. Thank you, Dr. Advis.

2006, Ian McLeod.

One of the most valuable things I acquired from this course was how to study for a difficult class. As I sit here and take a break from studying for your final to write this, I realize that studying less than a few days in advance for a test isn't enough and studying needs to start much earlier than that (I started studying for this final and my others last week). I also learned a great deal about the human body and science (and even how refrigerators work too!). I say this because I have not had physiology, genetics, or biochemistry yet; so needless to say this was the most difficult course I have taken so far.

2006, Ralitza Variakova.

I think that I am someone who will really retain what I've learned beyond this semester and, although you cannot measure it, I think that you can appreciate the fact that I have absorbed what you have had to teach me. I have really tried to understand everything and what it means for health maintenance, and I genuinely enjoyed learning this material. I was active as a listener and in discussions in class, and I came to a number of office hours. Thank you for this opportunity and all the others you have presented to allow us to succeed. Thank you for all the things you taught us, for caring about our careers as students, and for being so generous and accommodating. I couldn't have asked for a better teacher or course to inspire me in endocrinology. Thank you again. Taking your class was a great experience.

2006, Dan Ciferelli

Being a former student, I would like to share some insights on some of the most frequently asked questions about your courses. First of all, I can verify that your exams are ridiculously insane. It is impossible to obtain a good grade by memorizing the materials. The only way to succeed in this course is to learn and fully comprehend the material. I hope your students learn from my mistakes and make the best of the opportunity. Good luck to you and all your students. Enjoy the rest of your summer.

B.- Comments from former students now in Medical / Veterinary and Graduate School (12)

2015, Hael Abdulrazeq,

Dear Dr. Advis, I was one of those students who were fortunate enough to take your endocrinology course last semester. I must admit that, at the time, I was overwhelmed by the amount of information that was presented in class. I even thought of dropping the course a few times like some other students did. Regardless, I listened to the advice of former students and learned to adapt to the endless number of slides that we had to study. Now that I'm in medical school, I can also attest to the similarities between your courses and graduate education. The amount of work that we had to do for one exam in endocrinology is worth what we learn in one week in medical school. That being said, I believe the challenge that your course presented was the best kind of warm up for the next stage in my education. Thank you for being so patient and kind to the students who showed interest in the class. I hope you have a wonderful fall semester.
2014, Sadda Ayad,

Dr Advis, I hope you are doing very well. I wanted to let you know that I haven't forgotten about your request for my comments on your classes I took from Fall 2011 through Spring 2012. Thank you for everything you have taught me. Your teaching really helped me get through my first two years of medical school. The thinking process that you have instilled in me, has even gone this far: it led me through my first clinical rotation in internal medicine! It is important to not only memorize, but to think about various processes which occur simultaneously in the body. Knowledge gaps must be filled in with these thought processes. Memorizing random facts and then spewing them during rounding will no doubt impress the attending, residents, and other students. But, the lack of a discrete thought process will not help any student get too far without missing the underlying reasons for why a patient is still sick, why the medications are not useful, or why some patients are getting even worse. For your future students, let them know that the best way to study is to get start early, while keeping track of the main points in the stories that you tell in class. It is harder to drink one gallon in a sitting, rather than to drink 16 glasses of water, 1 per hour. Try studying 600 pages the night before the exam and you will get that analogy quite easily. Drawing a mental image is the single best way to keep track of the cycles explained in the classroom. For example, I remember when you tested us on the dynamics of a refrigerator on the very first day. I either answered or attempted to answer each and every single question you asked. Not to brag, but it doesn't take a smartphone or a laptop with a 4 GHz speed capacity to get the ball rolling. Instead, it takes a special style of thinking that can either be gifted, or brought out by a particular type of instructor or mentor. I am sure your students have hidden talent which they are too embarrassed to share with the class, and I am also sure that you brought it out in many of them throughout their respective semester. It can be tedious, it can be tough, and it can be daunting trying to read through 600 pages of physiology. Advice to the students: do not read these books like it is a novel. Do not memorize the front page, the index, and the diagrams. Instead, make up a scenario ("why is one adrenal gland abnormally large, and the other abnormally small, and ACTH is low...or both large, or both small"), close the book, close your eyes, ask yourself the question, then think, think, & think. Then, open your eyes, open the book, go to a section that you were thinking about, "voila!". There is nothing more fun than realizing that the answer was in your head the whole time, and not just in the index of a book. The best test-takers are those who can think an answer through without over-thinking. Memorizing is fantastic, but it can only get you so far. After all, how can you pour 5 L of fluid in a 4 L container without overflowing it? Answer: drill a hole on the bottom, of course. Basically, old material will fall out to waterfall new material in. Final remarks: find your weaknesses, make them strong. Your ability to think will never go away. This applies to all courses: Integrative Physiology, Endocrinology, Pathophysiology. Best of luck to the students taking these courses.

2013, Pazdan Beata,

I am currently in my first year in medical school, and throughout the years, I have been nothing but grateful for taking Dr. Advis's Physiology and Endocrinology courses during my undergraduate career. Both of those classes were definitely challenging, however they did prepare me sufficiently for the MCAT as well as med school courses. I found that all the effort and time I put into the courses had been well worth it. It is rewarding to sit in med school lectures on topics I have covered in Dr. Advis's classes a few years ago, and still be able to recall the functions of various hormones and understand the presented concepts, such as receptor sensitivity. This great background I have acquired helps me use my time wisely to learn the more complex material, instead of using up time (which is so limited in med school!) on the basics. I am currently taking Physiology, as well as a full load of other courses, that use Physio concepts in every lecture. My undergrad Physiology and Endocrinology courses have definitely provided me with the background that is necessary to do well. I just took my Neurophysiology exam last Friday, and a large number of questions were on the hypothalamo-hypophysal tract, circadian rhythm, as well as the hormones involved in the sleep cycle, hunger, and thirst, etc. — everything we covered in both Physio and Endo! All that being said, I recommend that you learn the material properly now, use the weekly questions to clarify anything you don’t understand, and take advantage of all the time that Dr. Advis is
dedicating to his students to make sure they do well. Lectures in med school speed through all the dense information, leaving you with your many textbooks and best memorization cap on to learn the material. In addition, there aren’t many professors, especially in med school/ vet school/ grad school, that are willing to give so much time to their students like Dr. Advis has. Using Dr. Advis’s methods will ensure that you will understand the concepts literally forever. Do your best, and good luck!

2013, Kos Lisa, My name is Lisa Kos and I have since graduated Rutgers in May of 2012. I have entered Ross University school of Veterinary Medicine. I want to thank you so very much that in all honesty words could never convey my appreciation for you and your wonderful teaching methods. You pushed us to be our best and from this we found how to be our best academically. But what you have done for me personally was to show that I had it in myself to achieve greatness. By pushing me, I was forced to try new ways of learning material and for that I am grateful. I went from being scared to speak up in class and giving a wrong answer to having my teachers ask in my current classes "is there anyone else willing to speak." You were right, you have prepared us for the demanding graduate programs and for that I thank you. You have saved me from going "coco bananas" like my fellow students are right now. Having studied from you I am deeply blessed. I pray that your current and future students take heed of your methods for I know that if they do, graduate school will be easier and they will excel in their fields. I hope everything is going well in your life and may each day bless you,

2013, Orrico, Josephine, Hi again! (see below to 2011 comment by this student) I cannot believe that it has been almost 5 years since I took Dr. Advis's summer Human Physiology course. Now that I am in my third year at New Jersey Medical School, ironically back at Rutgers since UMDNJ was absorbed, I'm on the floors of University Hospital and find myself leaning heavily on the foundations of physiology that started with Dr. Advis's courses and his mantra of looking at the big picture. I cannot tell you how many times while getting "pimped" by an attending, that I have fallen back on the fundamentals of physiology and reasoned out the answer. I find it rather ironic because the first two years of medical school were, unfortunately, a lot of memorization of minutia and less focus on basic physiology. This might be a consequence of so many different lecturers teaching each course of medical school; therefore, the courses lack cohesiveness and continuity when each professor does not know what was covered previously and in what way it was taught. However, that is the nature of the beast in medical school as each professor is an expert on his or her respective field and the big picture is lost in the intricacy of each specialty. All that being said, I ask that you take the opportunity to learn and to connect the dots that Dr. Advis so patiently numbers for you as you journey through his physiology course. I guarantee that while the work is exhausting and the understanding might not come easily, the achievement of drawing, seeing and knowing the big picture in physiology will be something you will always be able to fall back on as you navigate future courses of medical school, veterinary school, or graduate school, where there may not be dots, numbered or otherwise. So batten down the hatches and learn this correctly while you have the chance. Enjoy!

2013, Bhavsar Urvi, I hope this email finds you in good spirits. I am not sure you remember me, but I was a student of yours in your systems physiology/endocrinology class back in the summer of 2007. I would often come to your office hours with my now fiance, Akash Shah. I wanted to send this email as a thank you for several reasons. Today, I am now a medical student at Ross University (along with Akash) and as I am learning the cellular messaging cascades, I can literally recall how you emphasized the differences between water soluble hormones and steroid hormones, or how you would say in response to receptor sensitivity "if you scream I will not listen, if you talk however I will listen". Every time I think hormones, receptors, signalling, I immediately think back to what you taught me at Rutgers. It truly has been a great foundation for me at Ross University. You also taught me to be independent as a student, to believe in myself and question what I am learning. Having you as a
professor really made a difference in my thinking and learning. My road to get to medical school has not been easy, but it is professors like you who believe in your students and spend the time to help that makes the difference / builds confidence. I am not even sure if you will receive this email or if you are still teaching, but I wanted to thank you and let you know that you did cross my mind while I was getting that white coat. :)  

2013, Xue Cindy,  
I also want to say thank you for exposing me to your circle/triangle teaching method! I've realized that, especially within my problem-based learning curriculum, I use it almost everyday. Cornell Veterinary School likes to put students into these group learning situations where we're given a case, and we're to extrapolate information from case-studies in order to come up with a diagnosis, plan of action, and treatment (as if we were clinicians ourselves). If I hadn't been previously exposed to your teaching method, I wouldn't have known where to start in solving these case-studies especially since there's ton of information we have to sort through. Anyway, just letting you know that you benefitted at least this student.  

2012, Lehy Elizabeth,  
(An e-mail sent from graduate school). Welcome to the jungle! Dr. Advis has likely tried to scare you already but please try to understand... He isn't trying to scare you because he is the kind of professor that doesn't care how his students do and isn't going to help you in any way... He is, however, trying to scare you because you have a lot of work ahead of you. In order to do well in his courses, you HAVE to study. His courses are a completely different ballgame than most, and trust me, I have taken every last one of his courses. When I say you have to study, I mean reading the chapters before or as you come to them on the syllabus, outlining the chapters, coming to class, and taking notes, DOING THE WEEKLY QUESTIONS WHEN THEY ARE DUE, etc. You will soon realize that by doing this, you are actually LEARNING the material, and you will be able to explain the material in your own words, and it will feel really great. You won't be doing yourself any favors if you don't keep up with the work and the readings, and if you come to Dr. Advis the week before the exam and ask him questions that you should already know the answer to, he won't do you any favors either. I have found that most students go through several phases when they first take one of Dr. Advis' courses. At first, students are offended that Dr. Advis claims his courses are challenging and that he exaggerates about just how hard they have to work. You've all made it this far, right? So why should this course be any harder and why should you have to work more than you usually do? Usually, students do not take this seriously until right after the grades from the first exam are posted... then it can go in one of two directions. Either students come to terms with the fact that he was right all along and they step up their game to meet the demands (basically, they get over themselves), OR they become even more enraged, curse Dr. Advis and his methods, and settle for a D or an F. In that case, Dr. Advis will no longer care about helping those students because they no longer care about the course. You have to care. Dr. Advis knows what he's doing and he absolutely LOVES to teach. He designed these courses to help students to develop very efficient study methods and truly learn physiology. I can honestly say that he changed my life because he provided the environment necessary for me to realize just what I am capable of.  

(An e-mail sent from Veterinary School). If it were not for you and your amazing, "tough love" teaching methods, I absolutely would not be where I am today. Before I took my first course with you, I knew that I was interested in physiology and animal science, but I did not know how to turn that interest into academic success. You helped me to realize that I am actually capable of so much more and I will undoubtedly be able to use those skills in veterinary school when it comes time to learn an incredible amount of information and apply that information to actual clinical situations. I am so thankful to have taken your courses and I owe my graduate school successes and vet school acceptance to you. Thank you for believing in me like you believe in so many of your students and providing me with the environment to learn that I so desperately needed. Everyone who knows me at Uconn knows about that wonderful, amazing, and brilliant professor I had at Rutgers who completely changed
**2011, Orrico Josephine.** I took Dr. Advis' System Physiology course back in the Summer of 2009 and subsequently became a physiology undergraduate TA for two years. I am now a first year medical student at New Jersey Medical School in Newark, NJ. Dr. Advis course does prepare you for the type of learning you will be doing the rest of your career in medical school: self-learning. At this level, it is not enough to be able to read a book and quote it. It’s all about being able to read and put it in your own words so that it makes sense to you. If it doesn’t you can’t see “the big picture”, you aren’t learning, and you won’t retain the knowledge. Being able to organize your thoughts and being able to recognize the important concepts of a subject allows you to then work in the pesky little details that you also have to know. But a good framework is priceless and therein lies Dr. Advis method to his madness: making you learn how to do your own learning, so you are prepared for the rigors of the next level (i.e. medical school or veterinary school or graduate school). So, while you might think Dr. Advis likes to torture his students into learning “the way he wants you to learn” arbitrarily, he is actually doing you one of the greatest services because right now I’m enjoying the hell out of medical school and others are hating it with a passion for the same reason: we learn largely by our own merit. Allow Dr. Advis to teach you how to enjoy medical school, because the learning never stops and from medical school forward, it is Dr. Advis’ world.

**2011, Fumicaldo Daniel.** (e-mail sent to Leon Shermerhorn, a past undergraduate TA). Hey Leon, I hope all is well. Not sure if you are still working with Dr. Advis but if you are I thought he would like to hear that we just finished the Endocrine system and I totally rocked it. I think I got a 94 on the final exam, which was almost two standard deviations above the average of the class. I don’t mean to brag but I attribute a lot of that success to what I learned while taking Endo and Animal Phys with Dr. Advis. Two years after the fact and I still go back to the basic concepts of "the refrigerator", "the slap in the face" and "the women who got a job in the circus who grew a beard" ha, ha, the last one is my favorite. Not sure if you are still TAing but I thought it would also be a nice message for the pre-med students who are wondering if the work they are putting into Dr. Advis' class is going to pay off. Hands down it was the best class I took at Rutgers and has helped me enormously throughout my first two years in med school. Have a great day and enjoy your last semester.

(e-mail sent to Dr. Advis’ future students). My name is Daniel Fiumecaldo, I am currently finishing my second year at the West Virginia School of Osteopathic Medicine. I am writing this to give you guys some insight as to what you should expect from medical school and some general tips for success. While I was an undergraduate I took Endocrinology and Animal Physiology with Dr. Advis, so before I begin, I want to express my admiration for all of you for challenging yourselves by taking his courses and ensure you that you will be glad in the future. The following are nothing more than the thoughts of a second year medical student, they are not facts by any means, just a response to what I have experienced and how I have reacted to being a medical student! want to start off by addressing some common misconceptions about medical school. Many people have expressed to me that "they can't even think about how hard medical school must be". Academically medical school is challenging, not because the material you are learning is difficult, but rather a large volume of material is taught in a short amount of time. In fact, most basic science material that you encounter in medical school (biochemistry, physiology etc.) you will find is taught in a lot less detail than it is in undergraduate. But you cover about 3 weeks of undergraduate physio in about 3-4 days in medical school. You have to remember you are in the same classes everyday (5-6 hrs/day) whereas in undergraduate you only have 3 physio lectures per week (4 hrs/week). That being said I wanted to ensure all of you, that have a desire to study medicine, that the task isn't impossible. You don't need any special ability to get through medical school (you don't need to be extraordinarily smart) all you need is the will to accomplish this task and the discipline to get your work done on time. The idea that all med-students do is study is
NOT TRUE IN THE SLIGHTEST. Yes, you will study more than undergrad and yes there are some weeks that are more difficult than others but to say that "all I do is sit around and study" would be a lie. I currently have time to work-out 4 times a week (1.5 hours per workout), spend time with my girlfriend on weekends, stay in touch with my family and friends at home and relax and watch TV for at least an hour or two every day. I read a book for pleasure every night before I go to bed and have not pulled an "all-nighter" once in my two years. Furthermore, this is the most busy I have ever been since I am finishing classes, preparing for my practical exams as well as preparing for the first round of board exams. For the majority of the time in medical school I was working out 6 days a week! It's about your priorities, and yes studying is up there but believe me, it is not the only one.

Some tips for success

1. Read textbooks, a lot of the time teachers can mess up concepts and not realize it because they present such large amounts of material. You will know from undergrad that some teachers are better than others. Rather than having a bad attitude about being in a class with a professor you don't like; sit in the class, get an idea of what they are talking about, and then read to fill in the blanks. Sometimes the responsibility of teaching yourself falls on your shoulders, but you are capable of succeeding, just exploit your resources. Remember your textbooks can usually be found in your school's library, bought from an upper classmen, or borrowed from a friend.

2. Go to lecture if you are in a lecture based system. Remember that your lecturers are the ones that are writing your questions and you can pick up cues if you are sitting in class, about what questions will be on the test.

3. Clinicians vs. PHD's; this is an interesting topic. You will have two types of lecturers that will teach you in medical school. First are PHD's; these individuals have their doctorate in the subject they are presenting (pharmacology, immunology, physiology etc.) they tend to give more detail about the sciences and may not understand the "medical" aspects 100% of the time, don't get caught up in the little details, focus on what is medically relevant. Second are clinicians these are doctors that work for the school, or are guest lecturing at the school, and are lecturing about a specific topics in medicine. You tend to have more clinician lectures your second year. Clinicians will tend to give lots of detail about treatments and patient presentations, but have a tendency to brush over concepts they think you know but you haven't learned yet. Don't let this go unanswer, ASK THEM QUESTIONS! They are the best resource you have in getting an idea about how medicine is practiced during your first two years in the classroom.

4. MD vs. DO; I am not going to spend too much time on this, but if you have any questions about osteopathic medicine you can contact me. I am studying to become a DO and I just wanted to say it is a very integrative way to practice medicine, you will not be at a disadvantage in terms of your education (when compared to MD), and in some aspects the education is superior to the training you would receive if you chose to go into an MD program. Take that statement for what you think it's worth. I am only a 2nd year medical student and I have not gone to MD school. This is just the way I feel from my personal experiences and from conversations I have had with MD students.

5. Handling classes; as rough estimate consider one of Dr. Advis' lectures; expect that a medical school lecture would have about 75% of the detail but it comes at you 3 times faster. The material can pile up really fast, so doing a little bit every day is the way to go. I like to ask questions during lectures and I have even received compliments from other students who had the same question thanking me for asking them. Not many students like to ask questions for fear of sounding stupid, but don't be shy, you are paying a lot of money to be there so get your moneys' worth.

6. The military; I am currently receiving a scholarship from the Air Force so they are paying for my tuition, my books, my medical equipment and I get a salary every month on top of all that. I know the Army, Navy, Air Force and National Guard all offer scholarships. Having money makes living as a medical student a lot easier. Personally, my experience with the Air Force has been great, and I encourage any of you who are interested to explore the option.

7. Finally, remember that deciding to study medicine is just that, you are going to be studying MEDICINE. It is not physiology, anatomy or any science you have experienced thus far. Medicine is an art that is about learning to consider multiple possibilities when presented with a single
problem. Thinking "I want to help people" is not a reason to study medicine because there are so many different ways to help people without becoming a doctor. I strongly advise you to consider the field you are deciding to enter before you apply to or accept an offer from a medical school. That's all I have right now. If you want to ask me questions directly you can ask Dr. Advis or your TA Leon for my contact information. Best, Daniel Fiumecaldo, OMS II, 2d LT USAF

2010, Aulisio Jessica, Hi Dr. Advis: Maybe you remember me from Animal Physiology (Spring 08) & Endocrinology (Fall 08); I just want to say thank you. I am now in Pomona, CA, starting my 5th week of veterinary school. The first four weeks have been intense and here we have a problem-based learning curriculum. I didn't know it at the time, but your teaching style (to teach students to think!) set me up perfectly for this program. Not only that, I really learned and remembered my physiology and endocrinology from your class! My classmates will ask "where did you learn that!?", my answer was you learn the basic functions of hormones and their role in the body, and then think them through the physiology... or, I just tell them they should have gone to Rutgers. I still use the table, learning tool, from endocrinology. And I still have and use both textbooks daily: Animal Physiology because the pictures are wonderful and Endocrinology because my notes are in it! So I just had to write to you to say THANK YOU for everything you taught me! Take care & I hope all is well. [from another later e-mail]: This past week we had a puppy with urinary incontinence. The diagnosis ended up being ectopic ureter, but the majority of the week was spent studying motor/sensory loops of micturition. Now without studying, I tried to derive a basic schematic for how the reflex would work with autonomic and somatic systems by using the "circle". It turned out to be right on! I still marvel at the foundation I got from your classes! Thanks again.

2010, Ciuffitelli Alexandria, Hi Dr. Advis! Last year I was just a graduating senior at Cook, taking your endocrinology class to help fulfill an elective requirement, and now I am a first year vet student at UPenn. I just wanted to send you a big thanks for giving me the tools to learn how to learn. It was just like you said - they don't hold your hand through vet school, as I'm sure is the same in medical school or a PhD program, and your forced to teach a lot of the material to yourself. Initially, deciding to take your classes (Animal physiology as well) seemed like it would just be that much more work I would have to be doing...I was a senior - who wants to do work as a senior right? Ha ha. But I couldn't be happier that I pushed to really learn and shoot for an A in your class because I know those skills you taught me, and to those in the class willing to seek help, will stick with me for my life as a perpetual student since education never stops being a part of your career in this field. My advice to your students would be to come to you during office hours and try to follow your thought processes and technique of learning new material. Keep up with the book and don't be afraid to Google things to get an alternate explanation. Write out plenty of graphs and diagrams and figures and, yes, its more work, but the recitation (that I think you said is now part of the class) really helps with picking up on the material. I hope you get to work with many other students who are as appreciative as I am for all you taught me...even though at the time it was rough. Second messengers and cascades will forever be burned into my brain :). Thanks and hope you have a great year! GO RU!!