

Pre-Health Professions Workshop

Second Year Students



Common Concerns

- ❑ Bad grades in courses from freshman year
- ❑ Finding meaningful healthcare experience
- ❑ Should one consider research experience
- ❑ Difficulty getting acquainted with faculty
- ❑ Preparing for the standardized exams
- ❑ Pre-health coursework timeline
- ❑ What's a rigorous course load?

Recovering from “Bad” Grades

□ General Chemistry

- If you earned a C or D in any of the Chemistry sequences, then there is an opportunity to demonstrate your proficiency in advanced courses.

- You must review your study strategies and consider learning new skills and enhancing your current approach.
- You should attempt to earn a B+ or higher in all subsequent chemistry courses in the sequence.

Recovering from “Bad” Grades

□ Chemistry

- It is imperative that you do well in all future chemistry courses.
 - Organic Chemistry
 - CHM 2210, 2211, 2211L
 - CHM 3218 or BCH 4024
- If you earned a C in both General Chemistry courses CHM 2045 and CHM 2046, then you should take additional non-organic based chemistry courses.
 - Analytical Chemistry
 - CHM 3120 and CHM 3120L
 - Inorganic Chemistry
 - CHM 3610

Recovering from “Bad” Grades

□ Mathematics

- Although these courses are not uniformly required by health professions schools, they are considered critical.
- Your performance in these courses give the schools some idea about your ability to solve problems, analyze a situation, critically think about the situation given to you, and your creativity.
- Much of how you handle problems posed to you from mathematics courses is very similar to how you will solve problems scientifically.

Recovering from “Bad” Grades

- Mathematics – Calculus / Pre-Calculus & Trigonometry
 - If you earned a C or D in any of the Mathematics sequences, then there is an opportunity to demonstrate your proficiency in courses next in the sequence or in Statistics (STA 2023).
 - You must review your study strategies and consider learning new skills and enhancing your current approach.
 - You should attempt to earn a B+ or higher in all subsequent mathematics courses in the sequence.

Recovering from “Bad” Grades

□ General Biology

- Biology is a very essential subject for all medical coursework and training.
- General Biology provides almost all the foundational concepts for more advanced biological and medical sciences.
- If you earned a B or lower in any of the General Biology courses, you must complete at least 2 additional upper division courses to demonstrate your proficiency in this area.
- You must review your study strategies and consider learning new skills and enhancing your current approach.

Advanced Biology Courses to Consider

- Genetics
 - General Genetics PCB 3063
 - Molecular Genetics PCB 4522
 - Genetics of Microorganisms MCB 4304
- Cellular Biology
 - Eukaryotic Cell Structure and Function PCB 3134
 - Prokaryotic Cell Structure and Function MCB 4403
 - Bacterial and Viral Pathogens MCB 4203
 - Basic Biology of Microorganisms MCB 3020 and MCB 3020L
 - General Virology MCB 4503
- Anatomy and Physiology
 - Functional Vertebrate Anatomy ZOO 3713C
 - Animal Physiology PCB 4723C
- Evolution PCB 4674
- Evolutionary and Developmental Biology ZOO 3603C

Concentrate on Creating an Increasing Trend in Academic Performance

- “Bad” grades from the first year do not necessarily mean that a career in health care is not in your future.
- You may need to re-examine your choice and be open to explore other possibilities.
 - You can still prepare for a career in medicine, dentistry, veterinary medicine, etc.
 - However, you should be exploring other health care fields as a backup.
 - Do not limit your opportunities.
 - You must also be realistic and ask yourself if you are really willing to put in the hard work to be successful or if you truly enjoy the kinds of classes you are required to complete.

Concentrate on Creating an Increasing Trend in Academic Performance

- If you had a bad start your freshman year, you need to show that you can recover academically overall and demonstrate that your proficiency in the sciences.
 - Each semester, both your science and overall GPA must show an increase in academic excellence.

Take on a Rigorous Course Load

- To show you can be successful in a medically related course curriculum, you must demonstrate that potential in undergraduate education.
- In addition to having an increasing trend in total GPA and Science GPA, you must also consistently carry a rigorous course load for at least 3-4 semesters prior to submitting your application.

What is considered rigorous?

- Students should be carrying 15-17 credit hours of courses.
 - At least 2 courses must be in sciences that is considered challenging and rigorous.
 - Hard sciences – usually courses at the 3000 level or higher in Zoology, Botany, Microbiology, Chemistry, Physics, Engineering (Biochemical, Biomaterial Science, Electrical, Biological, Chemical), Integrative Biology, Mathematics, etc.
 - No “fluff” courses – courses that have a reputation for boosting GPA.

What else can I do to demonstrate my academic potential

- No more C's or W's on the academic record.
- All grades must be B+ and A
 - Especially the science courses
- Do not take any courses at the community college.
- Do not take any courses at another 4 year college or university outside of UF.
 - Study abroad does not apply.
- Prepare well for the standardized exams.
 - Earn higher than average scores to help demonstrate your academic proficiency.

Resources to Help Improve Grades

- Broward Teaching Center
392-2010
 - Tutoring
 - Math
 - Chemistry
 - Biology
 - Physics
 - Study Groups
 - Study Skills Advising
 - Effective Note Taking
 - Exam Taking Strategies
 - Time Management
 - Exam Preparation
 - Discover Your Learning Style/Preference
- Faculty Resources
 - Office Hours
 - Schedule Appointments
 - Visit the T.A.
 - Review Sessions
 - Practice Exams
 - Additional Homework
 - Consult with instructor about the solutions

Timelines – Medicine, Podiatry, Chiropractic, Naturopathic

	Fall Term	Spring Term	Summer Term
First Year	CHM 1025 MAC 1147 PSY 2012	CHM 2045 CHM 2045L MAC 2311	CHM 2046 CHM 2046L MAC 2312 or STA 2023
Second Year	CHM 2210 BSC 2010 BSC 2010L	CHM 2211 CHM 2211L BSC 2011 BSC 2011L	
Third Year	PHY 2053 PHY 2053L Science (MCB 3020, 3020L)	PHY 2054 PHY 2054L Science (Genetics)	
Fourth Year	BCH 4024 or CHM 3218 Science	Science Science	

Timelines - Dentistry

	Fall Term	Spring Term	Summer Term
First Year	CHM 1025 MAC 1147 PSY 2012	CHM 2045 CHM 2045L MAC 2311	CHM 2046 CHM 2046L STA 2023
Second Year	CHM 2210 BSC 2010 BSC 2010L	CHM 2211 CHM 2211L BSC 2011 BSC 2011L	
Third Year	PHY 2053 PHY 2053L MCB 3020, 3020L	PHY 2054 PHY 2054L Genetics	
Fourth Year	BCH 4024 or CHM 3218 Science	Science Science	

Timelines – Veterinary Medicine

	Fall Term	Spring Term	Summer Term
First Year	CHM 1025 MAC 1147 SPC 2600	CHM 2045 CHM 2045L MAC 2311	CHM 2046 CHM 2046L STA 2023
Second Year	CHM 2210 BSC 2010 BSC 2010L	CHM 2211 CHM 2211L BSC 2011 BSC 2011L	
Third Year	PHY 2053 PHY 2053L MCB 3020, 3020L	PHY 2054 PHY 2054L Genetics	
Fourth Year	BCH 4024 or CHM 3218 ANS 3440	ANS 3006C ZOO 3713C PCB 4723C	

Timelines - Pharmacy

	Fall Term	Spring Term	Summer Term
First Year	CHM 1025 MAC 1147 PSY 2012	CHM 2045 CHM 2045L MAC 2311 SPC 2600	CHM 2046 CHM 2046L STA 2023
Second Year	CHM 2210 BSC 2010 BSC 2010L ECO 2023	CHM 2211 CHM 2211L BSC 2011 BSC 2011L Social Behavioral Science	
Third Year	PHY 2053 PHY 2053L APK 2100C	PHY 2054 PHY 2054L APK 2105C	
Fourth Year	Science BCH 4024*	Science	

Timelines – Physician Assistant

	Fall Term	Spring Term	Summer Term
First Year	CHM 1025 MAC 1147 PSY 2012	CHM 2045 CHM 2045L MAC 2311	CHM 2046 CHM 2046L STA 2023
Second Year	CHM 2210 * BSC 2010 BSC 2010L SPC 2600	CHM 2211* CHM 2211L * BSC 2011 BSC 2011L	
Third Year	PHY 2053 * PHY 2053L * MCB 3020 MCB 3020L	PHY 2054 * PHY 2054L * DEP 3053 or other advanced psychology HSC 2100	
Fourth Year	APK 2100C	APK 2105C	

Timelines – Physical Therapy

	Fall Term	Spring Term	Summer Term
First Year	CHM 1025 MAC 1147 PSY 2012	CHM 2045 CHM 2045L MAC 2311*	CHM 2046 CHM 2046L STA 2023
Second Year	BSC 2010 BSC 2010L SPC 2600	BSC 2011 BSC 2011L HSC 2000	
Third Year	PHY 2053 PHY 2053L HSC 2100	PHY 2054 PHY 2054L DEP 3053 or other advanced psychology	
Fourth Year	APK 2100C Genetics* PCB 3063 or AGR 3303	APK 2105C	

Timelines – Optometry

	Fall Term	Spring Term	Summer Term
First Year	CHM 1025 MAC 1147 PSY 2012	CHM 2045 CHM 2045L MAC 2311	CHM 2046 CHM 2046L STA 2023
Second Year	CHM 2210 BSC 2010 BSC 2010L SPC 2600	CHM 2211 CHM 2211L BSC 2011 BSC 2011L Advanced Psychology course	
Third Year	PHY 2053 PHY 2053L MCB 3020, 3020L	PHY 2054 PHY 2054L Genetics	
Fourth Year	BCH 4024 or CHM 3218 APK 2100C	APK 2105C Science	

Meaningful Health Care Experience

- Must begin this year.
- Should provide for the following opportunities:
 - Explore different healthcare fields
 - Understand the nature of “doctor-patient” relationship
 - Understand the depth and breadth of the specific profession
 - Know what it is like to be in the patient’s shoes
 - Gain insight about what it means to be a good _____
 - Appreciate why others would place their well-being in the hands of a health care professional
- Be sure your commitment is consistent
- Your choice of health care activities need to be genuine and sincere.
- Choose a variety of different places.
 - Health care is provided in places other than Shands and at a physician’s office.



Other Meaningful Experiences

- Participate in other activities
- Important to show you have other passions
 - Choose community service projects that demonstrate how you want to help people apart from health care
- Need to show your personality
- Consider clubs or organizations that reflect personal hobbies and interests

Keeping Track of Your Experiences

- Purchase a 3-subject spiral bound notebook
- First chapter should be a log of all your experiences
 - Dates
 - Length of Time each day or week
 - Places
 - Contact Names
- Second chapter is for you to free write about each experience.
 - Read your free writes at the end of each week and reflect on you have written.
- Third chapter is for you to write about how the experiences affected you.
 - You should be able to answer the following questions.
 - What did your experience teach you about yourself?
 - What did your experience teach you about the profession?
 - What did the experience teach you about understanding the “patient”?
 - In what way has the experience confirm your decision to be a _____?

Preparing for the Standardized Exams

- BEGIN NOW!
- Take a free practice test offered by either Kaplan or Princeton Review.
 - Gauge where you are strong and weak.
 - Get an idea of how RIGOROUS the material is.
 - Gain an understanding of what you actually need to do to ensure a great score.
- Save those exams, quizzes, homework assignments, lecture notes, etc.
 - These will be good materials for you to create a “study guide” for the exams.
- In addition to doing well in your current classes, you should put together the study materials of previous courses whenever you can.
- Go to the bookstore and review the Test Prep Books.

Preparing for the Standardized Exams

- Learn the material for the sake of learning it.
- Do not try to “shortcut” your preparation by asking what topics will be on the MCAT, PCAT, DAT, etc. and which topics will not be on the tests.
 - You will very disappointed on test day to discover how wrong your guesses were or how wrong other people (those that claim to know how to predict the topics) were.
- Anything that anyone tells you is only partly true.
 - Exams are written each year and there is no quota on how many questions in what topics are going to be on the exam.
 - Selecting questions and topics are purely random.
 - Studying the materials based on past exams have never been 100% accurate.

Letters of Recommendation

- EXTREMELY IMPORTANT this year.
- Begin building a rapport with your professors.
 - You do not want to be stuck trying to get a letter from someone who does not know you well enough or from someone who does not remember you.
 - An EXCELLENT letter comes from someone who have known you for at least 3 semesters continuously.
 - Maintain the relationship with the instructor after the semester is over.



Letters of Recommendation

- Think of other people you may need a letter from:
 - Health care professional
 - Employer
 - Academic Advisor
 - Advisor for your major
 - Research principal investigator
 - Volunteer Coordinator or Supervisor
 - Community service activity

What things are Admissions Committee looking for?

- Maturity
- Academic potential
- Problem solving skills
- Ability to handle stress
- Adaptability
- Communication skills
- Ability to exercise good judgment
- Self-confidence
- Resourcefulness
- Compassion
- Work ethic
- Critical thinking skills
- Intellectual curiosity
- Capacity for empathy
- Motivation for learning
- Understanding of the profession
- Motivation for the profession
- Altruism
- Interpersonal skills
- Integrity

How do I begin building a rapport with potential faculty recommenders?

- Office hours
 - Okay to show curiosity about topics not discussed in class or concepts not on the exam.
 - Good idea to demonstrate your interest by reading up on articles or journals that relate to class topics and discussing them during office hours.
 - Clarify notes
 - Review exams, quizzes and homework together
- Consider doing research with the professor
- Discuss your career aspirations

How do I maintain the rapport?

- Continue to see the professor in future semesters.
 - Stop by to say “hi”
 - Update him/her about how classes are going
 - Discuss new or current activities you have been involved in
 - Look for things you may have in common
 - They do not always want to talk about E2 and SN1 reactions 24/7



To Research or Not to Research

- It will always be helpful to your application if you are involved with research.
- It is not needed or required for any of the health care professions.
- The experience will be personally rewarding and educational.



Benefits from Research Experience

- It will always be **STRONGLY** recommended and encouraged.
- Teaches you about the research process
 - Developing hypotheses
 - Designing experimental test
 - Understanding the scientific method
 - Learning how to interpret data
 - Ability to distinguish good research from bad research
 - Learning how to apply those seemingly unrelated science concepts to real life needs and concerns
- Boosts the strength of your application
- Makes you a more knowledgeable scientist and physician or other health care professional
- Research is a critical component to giving care

How does one find out about research opportunities?

- Talk to undergraduate coordinator in the department of interest.
- Read up on the researchers in the department websites and contact them about assisting them in his/her research.
- Subscribe to the pre-health listserv for announcements about research openings.
- Join a department club.

How do I let someone know I am interested in doing research?

- Read the principal investigator's website and look for abstracts from his/her publications.
- Find out what projects s/he is currently working on.
- Send an e-mail
 - Why you want to be involved in his/her research project.
 - What science courses you have completed and the grades.
 - What your availability would be.
 - Provide information about any research experience you may have up to this point, including high school.

Some links to research at UF

- <http://idp.med.ufl.edu/Pages/Faculty.htm>
- <http://borum.ifas.ufl.edu/Investigators/>
- <http://www.honors.ufl.edu/researchdatabase.html>
- <http://www.scholars.ufl.edu/>
- http://www.chem.ufl.edu/~reu/main/index_uf.html

Consider Summer Programs

- Research internships over the summer in other schools.
 - Google “SURF Programs”
- SMDEP
 - Summer Medical & Dental Education Program
 - 1st and 2nd year students only
 - www.smdep.org

What's Next?

- Third year
 - Fall term
 - Personal Statement
 - Compiling Letters of Recommendation
 - Researching schools
 - Preparation for exams
 - Learn about the Letter of Recommendation Service
 - Spring term
 - Completion of Personal Statement – Jan
 - Request for Letters of Recommendation – Feb
 - Research Schools
 - Preparation for exams
 - Summer term
 - Apply to schools – May or June
 - Take exam – May or June

Future Workshops – Next Year

- Junior Year
 - Personal Statement Workshop/Letter of Recommendation
 - MCAT update workshop
 - Preparing for the Interview
 - Application Workshop
 - Letter of Recommendation Service