



Health Professions

HANDBOOK



Medicine
Nursing
Dentistry
Optometry
Pharmacy
Physician Assistant
Physical Therapy
Veterinary Medicine



PASADENA
CITY COLLEGE®

Contents

- 5 | Intent of PCC Health Professions Handbook
- 7 | Medicine
- 21 | Nursing
- 27 | Dentistry
- 31 | Optometry
- 35 | Pharmacy
- 39 | Physical Therapy
- 43 | Physician Assistant
- 47 | Veterinary Medicine
- 51 | Sample Schedules
- 59 | Volunteering
- 67 | Undergraduate Research
- 69 | Professional and Personal Development
- 77 | Post-Baccalaureate Programs
- 79 | Letters of Recommendation
- 83 | Common Interview Questions
- 85 | Important Websites and Sources
- 87 | MESA and Caduceus Club



Handbook

PCC Health Professions Handbook

This handbook was developed with the intent of helping students achieve two goals:

- To transfer successfully from PCC to a university, and
- To understand the nature of the health professions and the process of admission to a health professional program.

This handbook will primarily focus on these health professional programs:

- Medicine
- Nursing
- Dentistry
- Pharmacy
- Optometry
- Physician Assistant
- Physical Therapy
- Veterinary Medicine

Some important considerations for the student include:

The terms “pre-med,” “pre-dent,” “pre-pharmacy,” “pre-physical therapy” or “pre-vet” are not majors. They are simply general descriptions of the career paths that some students choose for their professional future.

As you will read further in this handbook, all of these professional programs are graduate level programs. This means that it is required or advisable that you complete a bachelor’s degree in another field of study before pursuing a degree in one of these professional programs. The choice of your

bachelor's degree field of study is wide open. Most students who are interested in one of these health professions choose to major in biology or chemistry. However, the list of options is quite large.

Many professional associations advise students to consider all of their options in planning. For example, the American Association of American Medical Colleges recommends that students select a major that they:

- enjoy,
- do well in, and
- believe they can use whether or not they continue on to medical school.

There is a current trend for many students to major in a field outside the natural sciences. Below, in the section on medicine, you will see a chart with some of the majors that can prepare a person for any of the health professions. The student should consider this as one factor since many health professional schools are choosing to admit students who have well developed communication and human relations skills.

Nature of the Work

Physicians are dedicated to serving the health care needs of society through diagnosing and treating illness, injury and disease. Specializations are available in fields as diverse as anesthesiology, dermatology, family practice, internal medicine, obstetrics/gynecology, oncology, pathology, pediatrics, psychiatry, radiology, surgery, and urology. About one third of physicians in the U.S. work in primary care, acting as the first health professional consultants. Most primary care physicians (traditionally defined as family practice, internal medicine, pediatrics, obstetrics/gynecology, and psychiatry) provide comprehensive health care to patients and families and tend to see the same patients over a long period of time. When necessary, primary care physicians refer patients to other specialists and surgeons for further expertise. Most physicians work in small offices, clinics or in group medical practices where they see patients. Physicians often work long, irregular hours, and rotate shifts for emergency calls. Travel between the office and hospital to care for patients is common.

Pre-Medical Preparation and GPAs

Due to the competitive nature of the medical school application process and rigorous training required, students should carefully consider their motivation and preparation for a



career in medicine. In 2011-2012, a total of 45,226 applicants applied to at-least one medical school and 19,517 students were offered admissions to at least one school (a 43% acceptance rate.) In 2010, the average matriculated (accepted) medical school student had an undergraduate science GPA of 3.61, a non-science GPA of 3.75, and an overall GPA of 3.67. Students can take all of their pre-med preparation courses from a community college but it would be wise to take some of the science courses at a university. This is particularly true for those students who choose to earn a bachelor's degree in a humanities or a social science.

Pre-Med Courses at PCC

- Biology 010A, 010B, 010C (or 001A, 001B, 001C)
- Chemistry 001A, 001B, 008A, 008B
- Physics 031A, 031B (or 001A, 001B, 001C or 002A, 002B*)
- Math requirements vary from school to school
- Beginning in 2015: Psychology 001, Sociology 001

Notes:

1. * Students who choose to have majors other than biological sciences or chemistry may take Physics 002A & 002B in preparation for medical schools. Students who major in engineering should complete Physics 001A, 001B, 001C.
2. Many U.S. medical schools do not accept AP units and all required courses must be taken for a letter grade. If courses are repeated, both grades will be calculated. Some medical schools require a biochemistry course at the upper division level. The above lists of classes are requirements to most medical schools. For more specific requirements, students should check with individual medical schools.
3. Biology 001A, 001B, and 001C will be replaced with 010A, 010B, 010C after 2013.

Major

Any major is appropriate for medical school preparation. While science majors such as biology and chemistry require many of the same basic pre-requisites, selecting a science major is not required for admission to any medical school. Students are advised to select a major they find interest-

ing, can do well in, and use to earn a high GPA. The major should be a field of study that they can use even if they do not progress to a medical school. Sixty percent of applicants to medical schools are biology majors. For those who choose to major in an area of study other than science, students will need to demonstrate a strong science capability by taking the required sciences courses and even going beyond the minimum requirements. Doing so may take longer to graduate.

Acceptance to Medical School by Undergraduate Majors - 2007 Entering Class

Major	Applicants	Matriculants	Percentage
Biological Sciences	23,786	9,876	41%
Other	6,312	2,469	39%
Physical Sciences	4,798	2,291	48%
Social Sciences	4,874	1,931	40%
Humanities	1,499	725	48%
Health Sciences	1,122	355	32%
Math and Stats	311	122	39%
TOTAL	42,315	17,769	42%

MCAT <https://www.aamc.org/students/applying/mcat/>

The Medical College Admission Test (MCAT) is a standardized exam required by all medical schools. Starting in 2015, the MCAT exam will consist in these four test sections:

- *Biological and Biochemical Foundations of Living Systems,*
- *Chemical and Physical Foundations of Biological Systems,*
- *Psychological, Social, and Biological Foundations of Behavior, and*
- *Critical Analysis and Reasoning Skills*

Scores are reported on a scale from 1 to 15. A separate score is recorded for each of the four test sections: four sections, four scores. More information and sample questions are available in the Preview Guide for the MCAT 2105 Exam (Second Edition) 2012. A free practice test similar to the computer based format is available at www.e-mcat.com.

The four sections of the MCAT are described below:

The ***Biological and Biochemical Foundations of Living Systems and the Chemical and Physical Foundations of Biological Systems*** sections are designed to:

- test introductory-level biology, organic and inorganic chemistry, and physics concepts;
- test biochemistry concepts at the level taught in many colleges and universities in first-semester biochemistry courses;
- test cellular/molecular biology topics at the level taught in many colleges and universities in introductory biology sequences;
- target basic research methods and statistics concepts described by many college faculty as important to success in introductory science courses; and
- require you to demonstrate your scientific inquiry and reasoning, research methods, and statistics skills as applied to the natural sciences.

The ***Psychological, Social, and Biological Foundations of Behavior*** section is designed to:

- test your knowledge and use of the concepts in psychology, sociology, and biology that provide a solid foundation for learning in medical school about the behavioral and socio-cultural determinants of health;
- target concepts taught at many colleges and universities in one-semester introductory psychology and one-semester



introductory sociology courses;

- target biology concepts that relate to mental processes and behavior that are taught at many colleges and universities in introductory biology;
- target basic research methods and statistics concepts described by many college faculty as important to success in introductory science courses; and
- require you to demonstrate your scientific inquiry and reasoning, research methods, and statistics skills as applied to the social and behavioral sciences.

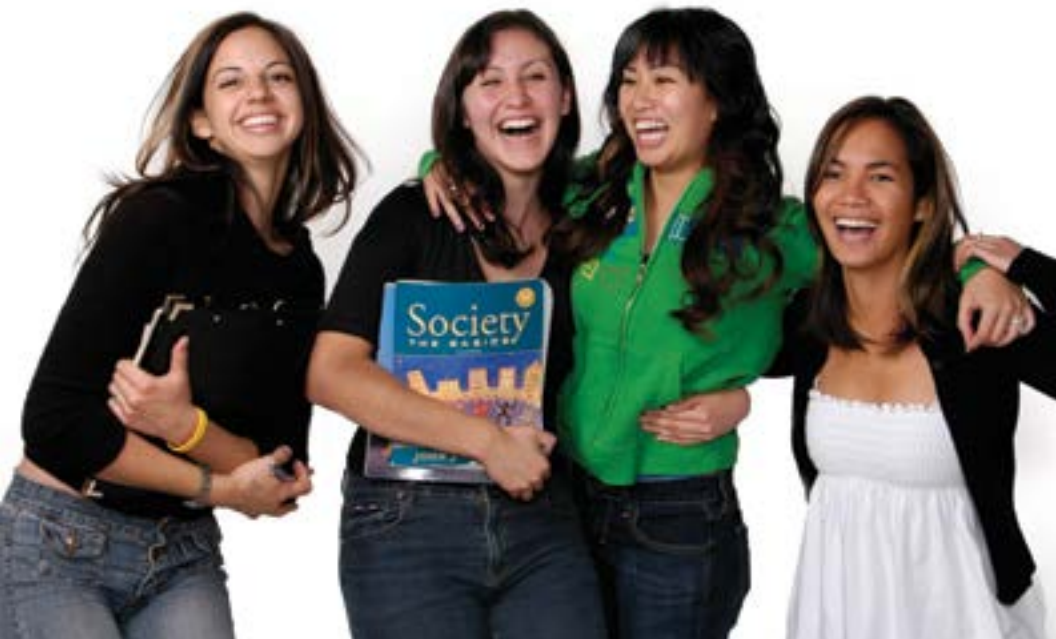
The ***Critical Analysis and Reasoning Skills*** section is designed to:

- test your comprehension, analysis, and reasoning skills by asking you to critically analyze information provided in reading passages;
- include content from ethics, philosophy, cultural studies, population health, and a wide range of social sciences and humanities disciplines; and

- provide all of the information needed to answer questions in the passages.

Medical Education (Medical School)

There are one hundred fifty accredited allopathic medical schools in the United States and Canada that award the degree of Medical Doctor (M.D.). There are twenty-nine accredited schools of osteopathic medicine in the U.S that award the Doctor of Osteopathy degree (D.O.). In addition, there are nine schools that award the Doctor of Podiatric Medicine degree (D.P.M.) and seven schools that award the Doctor of Naturopathic Medicine degree (D.P.M.). Medical school usually requires four academic years. Typically, the first two years include classroom instruction in the basic sciences. The following two years involve a series of clinical rotations throughout inpatient and outpatient settings where students work with patients under the supervision of attending physicians. Some medical schools structure the basic science instruction and



rotations using different models. During the last year of medical school, students make decisions about medical specialty and apply for internship or residency programs in their desired area of expertise.

Types of Medical Schools

It is also important for a student to know that there are different types of medical schools in the United States. There are allopathic medical schools, osteopathic medical schools, podiatric medical schools, and naturopathic medical schools. The differences between the two most common types of medical schools are as follows:

Allopathic medical schools are the most common type of medical training. A graduate of an allopathic medical school will receive a M.D. (Doctor of Medicine degree). There are 130 allopathic medical schools in the United States. Allopathic medicine refers broadly to medical practice that is also termed western medicine, evidence-based medicine, or modern medicine. More information about allopathic medical schools can be found at the Association of American Medical Colleges - www.aamc.org

Allopathic medical schools in California include: UC- San Francisco, Stanford University, UC- Davis, UC- Los Angeles, UC – Riverside, USC, UC- Irvine, Loma Linda University, and UC- San Diego.

Osteopathic medical schools also prepare students to become physicians; however, their graduates receive a D.O. (Doctor of Osteopathy degree). Osteopathic medicine was founded on the basis of a holistic approach to health care and a belief that the human body has an innate ability to health itself. D.O.s are trained in manipulation techniques that restore proper body structure and function so that self-healing can take place. There are twenty-five osteopathic medical schools

in the United States. More information about osteopathic schools can be found at the American Association of Colleges of Osteopathic Medicine - www.aacom.org

Osteopathic medical schools in California include: Touro University and Western University.

Graduates of allopathic and osteopathic medical schools are eligible for all advanced specialization or residency training programs. Please see the list below for some of the specialties available for medical school graduates. Included in this list is information about average incomes.

Other options for medical education that are less known are podiatric medical schools and naturopathic medical schools:

Podiatric medical schools prepare physicians who specialize in the prevention, diagnosis, and treatment of problems affecting the foot and ankle. A graduate of a podiatric medical school will receive a D.P.M. (Doctor of Podiatric Medicine degree). There are nine podiatric medical schools in the U.S. More information about podiatric medicine can be found at the American Association of Colleges of Podiatric Medicine- www.aacpm.org

Podiatric medical schools in California include: Samuel Merritt University and Western University.

Naturopathic medical schools train physicians who specialize in natural medicine. Treatment of disease is based on nutrition, herbal medicine, homeopathy, and other approaches. Graduates are awarded a N.D. (Doctor of Naturopathy degree). There are six naturopathic medical schools in the U.S. More information about naturopathic medicine can be found at the American Association of Naturopathic Medical Colleges - www.aanmc.org

The only naturopathic medical school in California is Bastyr University. This school is based in Washington State, but has a campus in San Diego.

California Medical School Statistics

Information sources: *The Princeton Review – The Best 168 Medical Schools 2012* and individual school websites

Allopathic Medical Schools	Applied	Accepted	Enrolled	Overall GPA	Science GPA
Loma Linda	3990	N/A	189	3.78	3.73
Stanford	5820	206	86	3.75	3.79
USC	6444	331	174	3.68	3.66
UC-Davis	4554	228	96	3.55	3.66
UC-Irvine	4845	264	104	3.67	3.75
UC-Los Angeles	5046	N/A	121	3.82	3.83

Osteopathic Medical Schools	Applied	Accepted	Enrolled	Overall GPA	Science GPA
Touro	3725	135	135	3.47	3.5
Western	2223	511	220	3.55	N/A

Podiatric Medical Schools	Applied	Accepted	Enrolled	Overall GPA	Science GPA
Samuel Merritt	419	111	45	3.28	3.12
Western	376	N/A	49	3.24	3.14

Naturopathic Medical Schools	Applied	Accepted	Enrolled	Overall GPA	Science GPA
Bastyr	N/A	N/A	N/A	3.32	N/A

N/A – Information Not Available

Residency and Fellowship Training

Following medical school, graduates may begin a residency, which is a paid on-the-job training in a specialty. The train-

ing required varies from three to seven years depending on the specialty selected. Family Practice requires three years. Training in Dermatology requires four years. Surgical specialties require five years. Most specialties also offer advanced training which require additional one to three years of fellowship following residency.

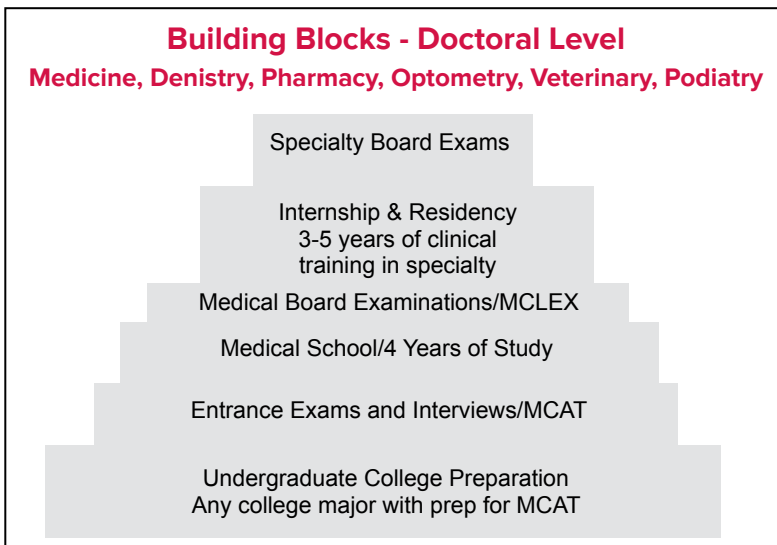
Earnings and Occupational Outlook

Earnings vary according to number of years in practice, type of practice, geographical location, and specialty. With changes in the health care system, there are fewer solo practices and more physicians joining medical groups or networks. The Occupational Outlook Handbook reports that employment of physicians and surgeons will grow faster than average for all occupations due to continued expansion of the health care industries and an aging population. The greatest projected need is for physicians who will work in the field of primary care.

The listing below details the average range of salaries for physicians of selected specialties as of July 2010. This information is from Wikipedia, *Specialty (Medicine)*. Page last modified on March 23, 2013. Percentages provided reflect the percentage of entering medical students who are considering these specializations. This information is taken from *MSAR: Getting Started*

Specialty:	Median salary:
Anesthesiology (3.3%)	\$331,000 to \$423,507
Dermatology (2.9%)	\$313,100 to \$480,088
Emergency medicine (8.9%)	\$239,000 to \$316,296
Cardiac Surgery	\$218,684 to \$500,000
Family practice (7.4%)	\$175,000 to \$220,196
Internal medicine (16.8%)	\$184,200 to \$231,691

Neurology (4.7%)	\$213,000 to \$301,327
Obstetrics and Gynecology (4.7%)	\$251,500 to \$326,924
Ophthalmology (2.3%)	\$150,000 to \$351,000
Orthopedic surgery (9.1%)	\$397,879 to \$600,000
Otolaryngology	\$191,000 to \$393,000
Pathology	\$239,000 to \$331,842
Pediatrics (13.9%)	\$160,111 to \$228,750
Psychiatry	\$173,800 to \$248,198
Radiology (diagnostic) (3.2%)	\$377,300 to \$478,000
Surgery (general) (10.1%)	\$284,642 to \$383,333
Urology	\$331,192 to \$443,518
Neurological surgery (3.1%)	\$350,000 to \$705,000
Plastic surgery	\$265,000 to \$500,000
Gastroenterology	\$251,026 to \$396,450
Pulmonology	\$165,000 to \$365,875



Other Factors Considered for Successful Application to Medical Schools

Clinical experience is strongly recommended for admission to most medical schools. This can include a paid or volunteer position in a doctor's office, local clinic, or a hospital. Most hospitals and clinics gladly accept volunteers.

Research experience is increasingly important. Options include volunteering in a lab or for a professor, getting a job as a lab assistant at a local university, hospital or pharmaceutical company, or participating in a summer biomedical research program.

Community service experience is highly valued by medical schools. Future doctors should be able to demonstrate compassion and a willingness to give back to their communities.

Work experience can also be valuable in demonstrating your potential to succeed in medical school. Past success in a work environment can reveal meaningful information to admissions committees. Depending on the setting, work experience can develop and showcase a variety of skills including communication (oral and/or written), time management, and problem solving.

Letters of recommendation are required for application to medical school. The typical letter packet consists of three to five letters, two from science professors, one from a non-science professor, and one, or more, from supervisors of relevant work, research, or clinical activities. Students are encouraged to create and maintain positive contacts with prospective recommenders early in their academic career. An applicant may need to collect about 15 letters of recommendations in order to get five "decent" letters.

- It is recommended that students apply to between 10-15 schools to receive interviews at five, and possible acceptance to one.
- You should plan to pay for multiple application fees, pho-

to copying, certified mail, etc.

- MCAT prep courses and MCAT fees (may need to take more than one time)
- New suit/clothing for interviews
- Airfare to interview sites and hotel charges
- Purchase of “Medical School Admission Requirements (MSAR)” book

Helpful websites for pre-med students:

www.e-mcat.com

Medical College Admission Test

www.amsa.org/premed

American Medical Student Association

www.snma.org/premedical

Student National Medical Association – MAPS Chapter

www.aamc.org/publications

Copies of the Medical School Admission Requirements

www.aamc.org/amcas

American Medical College Application Services

www.aacom.org

American Assoc.of Colleges of Osteopathic Medicine Appl
Service



Nature of Work

With 3.1 million Registered Nurses (RN's) in the US today, nursing is the largest health care profession. Nurses provide preventative and restorative health care to patients in a wide variety of settings. Associate Degree Nurses (A.D.N.'s) complete two-years of nursing course work at a community college. The Bachelors of Science in Nursing (BSN) is the preferred path of entry into registered nursing. BSN programs usually take 4-5 years to complete. While each of these programs lead to licensure as a RN, a BSN affords the opportunity to pursue leadership, management, and more independent nursing roles. BSN graduates can pursue advanced degrees or training in nursing and enjoy greater career advancement opportunities.

Earnings and Occupational Outlook

The median annual salary for Registered Nurses was \$64,690 in 2010, salaries vary greatly with geographic location and health care setting. The lowest 10 percent of registered nurses earned less than \$43,410 and the highest 10 percent earned over \$95,130 (Occupational Outlook Handbook 2012-13).

“Employment of registered nurses is expected to grow 26% from 2010 to 2020, faster than the average for all occupations.” According to the American Association of Colleges of Nursing, the BSN nurse is prepared for a broader role- the BSN nurse is the only basic nursing graduate prepared to practice in all health care settings; critical care, ambulatory care, public health and mental health, and thus has the greatest employment flexibility of any entry-level RN. There are many areas open to nursing graduates, including the tradi-

tional hospital nurse who may work in pediatrics, maternity, the operating room, surgical units, critical care, or trauma. Increasingly, nurses also work as nursing educators, quality assurance nurses, nurse managers, and in home health.

At the Masters degree level there are increasing opportunities for study that include: nursing administration, nurse midwifery, clinical specialist, nurse anesthetist, case management, and nurse practitioner (family, adult, pediatric). Nurses holding Doctoral degrees often take positions in research or academic settings.

Pathways to Becoming a Baccalaureate Level Registered Nurse

- 1) Enter Traditional Bachelor of Science Nursing Program at a 4-year college or university (4-5 years)
- 2) Earn an Associate's Degree in Nursing to become a registered nurse (2-3 years). Enter a RN to BSN program at a four-year college or university (1-2 years)
- 3) Earn a Bachelors degree in a non-nursing field (4 years). Enter an accelerated or traditional BSN program (1-3 years)
- 4) Earn a Bachelors degree in a non-nursing field (4 years). Enter an Entry level MSN program, which awards the BSN and/or RN license along the way (3 years)



Nursing Program Prerequisite Courses

- Oral Communication
- Written Communication
- Critical Thinking
- Chemistry: general, inorganic, organic or integrated (with associated lab if required at the institution where the course was taken)
- Human Anatomy
- Human Physiology
- Microbiology
- Statistics

Helpful Websites for nursing students:

www.aacn.nche.edu

American Association of Colleges of Nursing

www.nсна.org

National Student Nurses Association

www.allnursingschools.com

All Nursing Schools

<http://portal.nursingcas.org>

Nursing School Admissions

www.aacn.nche.edu/students/your-nursing-career

Career Advice for Prospective Nursing Students

Universities and Nursing Department Telephone Numbers and Web Addresses

CSUN: California State University - Northridge
(818) 677-3101 <http://www.csun.edu/~nursing/>

CSULA: California State University -Los Angeles (323) 343-4700 www.calstatela.edu/dept/nursing/

CSUDH: California State University - Dominguez Hills (800) 344-5484 www.csudh.edu/cps/son/programs.htm

CSULB: California State University - Long Beach (562) 985-4463 <http://www.csulb.edu/~nursing/>

CSUF: California State University - Fullerton (714) 278-3336 <http://my.fullerton.edu/nursing/>

CSUSB: California State University - San Bernardino (909) 537-5380 <http://nursing.csusb.edu>

UCI: University of California - Irvine (949) 824-3580 <http://www.cohs.uci.edu/nursing>

UCLA: University of California - Los Angeles (310) 825-7181 <http://www.nursing.ucla.edu/son/>

MSM: Mount Saint Mary's College (800) 999-9893 <http://www.msmtc.la.edu/nursing/>

LLU: Loma Linda University (800) 422-4558 www.llu.edu/llu/nursing/programs/transferpatterns.html

APU: Azusa Pacific University (626) 815-5386 <http://www.apu.edu/nursing/>

BIOLA: BIOLA University (562) 903-4850 www.biola.edu/academics/undergrad/nursing/

Schools that Offer Accelerated Baccalaureate Programs for Students with a Bachelor's Degree in Major Other Than Nursing

Azusa Pacific University, Cal State Long Beach, Cal State Northridge, Loma Linda University, Mount Saint Mary's College, National University, Samuel Merritt College, Concordia University, California Baptist University, Cal state San Marcos.

Schools that Offer Master's degrees for Students with a Bachelor's Degree in Major Other Than Nursing

Azusa Pacific University, Cal State Bakersfield, Cal State Dominguez Hills, Cal State Fresno, Cal State Long Beach, Cal State LA, Cal State Sacramento, San Francisco State University, Sonoma State University, UCLA, UC San Francisco, UC San Diego, University of San Francisco, Samuel Merritt College, Western University of Health Sciences, California Baptist University, Cal State Fullerton.

Helpful web sites:

Statewide Articulation agreements:

<http://www.assist.org>

California Board of Registered Nursing:

<http://www.rn.ca.gov> or (916) 322-3350



Dentistry

Nature of the Work

Dentistry is a branch of the healing arts and sciences devoted to maintaining the health of the teeth, gums, and other hard and soft tissues of the oral cavity and adjacent structures. Dentists should have good visual memory, excellent judgment of space and shape, a high degree of manual dexterity, and scientific ability. Good business sense, self-discipline, and communication skills are helpful for success in private practice. As of 2009, 186,084 dentists were professionally active in the U.S.

Earnings and Occupational Outlook

Though earnings vary according to number of years in practice, location, hours worked, and specialty, dentists in general practice who owned their practice earned an average net income of **\$192,680** in 2009. Specialists' average net income was **\$305,820** in that year. Employment of dentists is expected to grow about as fast as average for all occupations through 2020. (Occupational Outlook Handbook, 2012-2013.)

Dental Education

Currently there are 65 dental schools in the United States (6 in California). Most dental schools award the degree of Doctor of Dental Surgery (D.D.S.). Dental school usually lasts 4 academic years. It is important to keep in mind that, unlike medical school, an applicant does not have to have a bachelor's degree for entry to dental school. However, more than 90% of students entering dental school had completed four or more years of college. In 2011, the mean GPA for accepted students to US dental school is a 3.54 (Total) and 3.35 (Science).

Major

Any major is appropriate for dental school preparation. While science majors such as Biology and Chemistry require many of the same basic prerequisites, selecting a science major is not required for admission to any dental school. Students are advised to select a major they find interesting, can do well and use if they do not enter or finish dentistry.

Undergraduate majors of dental school applicants and enrollees, 2010–11

Predental Major	Applicants	Enrollees
Biological Science	51.1	52.2
Chemistry/Physical Science	17.4	18.8
Engineering	2.6	2.9
Math/Computer Science	1.4	1.3
Social Sciences	8.1	7.6
Business	4.5	4.1
Education	0.5	0.5
Language/Humanities/Arts	4.1	4.0
Pre dentistry	5.2	3.9
Other Major	4.3	3.8
No Major	1.1	0.8

Source: American Dental Education Association, U.S. Dental School Applicants and Enrollees, 2010 Entering Class

Admission Requirements

When selecting students, schools consider scores earned on the Dental Admission Test (DAT), the applicants' grade point average, and information gathered through recommendations and interviews. Aside from prerequisite courses, it is

recommended that students engage in extracurricular activities such as volunteering in a dental office and/or lab and community service. Pre-dental students should be able to demonstrate their potential for independent critical thought, leadership, concern for others, and an understanding of the dental profession. Additionally, pre-dental students should work at developing and/or improving manual dexterity and eye-hand coordination.

Pre-Dentistry Courses at PCC

- English 001A, 001B (or 001B equivalent)
 - Biology 010A, 010B, 010C (or 001A, 001B, 001C)
 - Chemistry 001A, 001B, 008A, 008B
 - Physics (031A, 031B) or (001A, 001B, 001C) or (002A, 002B*)
 - Math requirements vary from school or school
 - Recommended: Art 032A, 038A
-

Notes:

1. * Students who choose to have majors other than biological sciences or chemistry may take Physics 002A & 002B in preparation for dental schools. Students who major in engineering should complete Physics 001A, 001B, 001C.
2. The above lists of classes are requirements for most dental schools. For more specific requirements, students should check with individual dental schools.

Dental Admission Test (DAT):

The DAT is entirely multiple choice responses and consists of four separate sections:

- Survey of Natural Sciences (Biology, General Chemistry, and Organic Chemistry)
- Perceptual Ability (Two- and three-dimensional problem-solving)

- Reading Comprehension (Dental and Basic Science)
- Quantitative Reasoning (Mathematical problems, numerical calculations, conversions, etc.)

Recent Statistics for Dental Schools in California (2010)

Dental Schools	Average GPA	BCP* GPA	Average DAT
UC - Los Angeles	3.7	3.67	21.0
UC - San Francisco	3.5	3.56	20.0
Loma Linda	3.45	3.36	19.8
University of the Pacific	3.44	3.38	21.0
Western University	3.41	3.3	18.5

*BCP = Biol/Chem/Phys GPA

Helpful websites for pre-dental students:

www.adea.org

American Dental Education Association

www.ada.org

American Dental Association

www.adea.org

American Association of Dental Schools

Optometry

Nature of the Work and Earnings

Doctors of Optometry (O.D.) are independent primary health care providers who examine, diagnose, treat and manage diseases and disorders of the visual system, the eye and associated structures as well as diagnose related systemic conditions. Optometry is the nation's third largest independent healthcare profession. Over half the people in the United States wear glasses or contact lenses. According to the American Optometric Association, the net average wages of salaried optometrists were \$95,092. Optometrists that owned part of all of their practice earned an average of \$147,856.

Optometry Education

There are presently 20 schools and colleges of optometry in the United States and one in Puerto Rico. There are three Optometry programs in California: The Southern California College of Optometry, The University of California, Berkeley, and Western University of Health Sciences. The Doctor of Optometry degree is a 4-year program.



Pre-Optometry Preparation

Admission requirements at all schools require the completion of a minimum of at least 90 semester units of college coursework; however, a Bachelor's degree may be required

and is strongly recommended. Ninety percent of new entrants at most schools have obtained Bachelor's degrees. A student's academic evaluation is based upon overall GPA, science GPA, college attended, degree progress, and course load difficulty. The overall average GPA for the 2010 entering class at all schools and colleges of optometry ranged from a high of 2.8 to 3.68.

Major

Any major is appropriate for optometry school preparation. While science majors such as Biology and Chemistry require many of the same basic prerequisites, selecting a science major is not required for admission to any optometry school. Students are advised to select a major they find interesting, can do well and use if they do not enter or finish Optometry.

Common Components Required for Admission

1. Application including personal statement
2. Official transcripts from all colleges attended
3. Official Optometry Admission Test (OAT) scores
4. Letters of recommendation
5. Optometry experience/exposure
6. Personal interview

The Optometry Admission Test (OAT)

The Optometry Admission Test (OAT) is a computerized test. It must be taken by all applicants seeking admission to schools and colleges of optometry. The OAT is a standardized exam, which contains only multiple choice test items. There are six components: Quantitative Reasoning, Reading Comprehension, General Biology, General Physics, General Chemistry, and Organic Chemistry. OAT prep courses are available and vary by content and price.

Course Requirements for Optometry School

A student's academic evaluation is based upon overall GPA, science GPA, college attended, degree progress, and course load difficulty. Prerequisite admission requirements vary from school to school. Please refer to website: www.opted.org for the specific requirements of each school.

Typical Requirements for Admission: Pre- Optometry Courses at PCC

- English 001A, 001B
- Biology 010A, 010B, 010C (or 001A, 001B, 001C)
- Chemistry 001A, 001B, 008A, 008B
- Physics 031A, 031B (or 002A, 002B or 001A, 001B, 001C)
- Microbiology 002
- Anatomy 025
- Physiology 001
- Statistics 050 or 018
- Math 005A
- Psychology 001

Helpful websites for pre-optometry students:

www.aaopt.org

The American Academy of Optometry

www.opted.org

The Association of Schools and Colleges of Optometry

www.optomcas.org

Central Application Service for Schools and Colleges
of Optometry



Pharmacy

Nature of the Work

Pharmacists are health professionals who are concerned with serving the pharmaceutical needs of patients and communities. Pharmacists can be found in a variety of settings including community and consultant pharmacies, hospitals and institutions, managed care organizations, the pharmaceutical industry, academics and research, government agencies and many more. The most common setting is community pharmacies, which include independent, prescription only pharmacies, such as those found in medical office buildings, and chain pharmacies (local drug stores such as CVS and Rite Aid).

Occupational Outlook and Earnings

The Occupational Outlook Handbook (2012-2013) reports that employment of pharmacists is expected to increase by 25%, faster than the average for all occupations through the year 2020 due to the increased pharmaceutical needs of a larger and older population and greater use of medications and other factors. The median annual of wage-and-salary pharmacists in 2010 were \$115,570. The top 10% earned more than \$138,620. Salaries vary by work setting and geographic location.

Education

Currently there are 124 accredited pharmacy programs



offering the Doctor of Pharmacy (Pharm.D.) professional degree. The Pharm.D. is a four-year program following completion of a minimum of three years of pre-pharmacy courses in college that may include a bachelor's degree. There are eight pharmacy schools in CA.

Major

Any major is appropriate for pharmacy school preparation. While science majors such as Biology and Chemistry require many of the same basic prerequisites, selecting a science major is not required for admission to any pharmacy school. Students are advised to select a major they find interesting, can do well and use if they do not enter or finish pharmacy.

Pre-Pharmacy Preparation – Highly Selective.

Some pharmacy programs require applicants to take the Pharmacy College Admissions Test (PCAT). **None of the eight California Pharm.D. programs currently require the PCAT.** Programs select applicants based on a variety of characteristics, including academic background, clinical experience, personal statement, interview, and letters of recommendation. Preferably, one of the two letters is written by a commercial and the other from a clinical pharmacist. Personal qualities including motivation, communication, critical thinking skills, writing skills, and empathy are also very important. Most schools expect applicants to gain first-hand paid or volunteer experience in a pharmacy setting to confirm their interest in the pharmacy profession. As pharmacists become more involved in educating patients, communication and interpersonal skills are increasingly important to demonstrate. For further information on these programs or Pharmacy programs outside of California, consult the Pharmacy School Admissions Requirements book by visiting: www.aacp.org.

Pharmacy Technician Training Programs in California:

There are One-Two year Pharmacy Technician training programs in California. Completion of these programs can aid in getting paid pharmacy experience and letters of recommendation. But do not include the science prerequisites necessary for pharmacy school. These programs are offered at: Allan Hancock College, Cerritos College, Chaffey College, Cosumnes River College, Foothill College, San Bernardino Valley College, San Francisco City College, Santa Ana College, and Santa Rosa Junior College.

Pharmacy Schools in California

Loma Linda University, Touro University, University of the Pacific, USC, Western University, UC - San Francisco, UC - San Diego, CA Northstate College of Pharmacy

Common Requirements For Pharmacy Schools

- Anatomy 025 & Physiology 001 (or Physiology 002A & 002B)
- Biology 001A, 001B, 001C (or 010A, 010B, 010C)
- Chemistry 001A, 001B, 008A, 008B
- Physics 031A, 031B (or 002A, 002B or 001A, 001B, 001C)
- Microbiology 002
- Economics 001A or 001B
- Mathematics 005A
- Psychology 001
- Speech 001 or 010
- English 001A, 001B

Recent Statistics for Pharmacy Schools in California

Pharmacy Schools	Expected GPA
CA Northstate	3.21
Loma Linda University	3.44
Touro University	3.42
University of the Pacific	3.20
USC	3.60
Western University	3.40
UC - San Francisco	3.60
UC – San Diego	3.69

Helpful websites for pre-pharmacy students:

www.pharmcas.org

Pharmacy College Application Service

www.aacp.org

American Association of Colleges of Pharmacy

www.pharmacy.ca.gov

California State Board of Pharmacy

www.pcatweb.info

Pharmacy College Admissions Test

Physical Therapy

Physical Therapy

Nature of the Work

Physical Therapists are dynamic health professionals who provide clinical expertise in the restoration, maintenance and promotion of optimal physical function. Physical Therapists evaluate and treat people of all ages with movement disorders and other health problems resulting from diseases, disorders, conditions or injuries. The treatment goals of Physical Therapists include making patients stronger, relieving their pain, helping them to regain and maintain maximum human performance, and educating patients on proper health maintenance. Treatment may include therapeutic exercise, cardiovascular endurance training, and training in activities of daily living.

Employment and Salaries

Physical Therapists are employed in hospitals, private physical therapy offices, community health centers, industrial health centers, sports facilities, rehabilitation centers, nursing homes, home health agencies, schools, research institutions, or teach in colleges or universities. They work with other health care providers such as physicians, occupational therapists, nurses, mental health professionals, and speech pathologists and audiologists. In 2010, about 198,600 jobs were held by physical therapists in the U.S. (Occupational Outlook Handbook 2012-13).



The median salary for a physical therapist in May of 2010 was \$76,310 depending on position, years of experience, degree of education, geographic location, and practice setting (Occupational Outlook Handbook 2012-13).

Physical Therapy Education

There are currently 212 accredited programs. Although both degrees currently prepare students to be eligible for the PT license examination in all 50 states, effective December 31, 2015, CAPTE will require all programs to offer the DPT degree. There are currently 14 Physical Therapy programs in California. Accredited DPT programs in CA include Azusa Pacific University, Chapman University, Loma Linda University, Mount St. Mary's College, Samuel Merritt College, University of California, San Francisco/ San Francisco State, University of Southern California, University of the Pacific, CSU Fresno (MPT/DPT), CSU Long Beach, CSU Northridge (MPT/DPT), and CSU Sacramento.

Undergraduate Major

The two most common majors are Biology/Physiological science and Kinesiology/Exercise Science. Which of the two majors above a student should choose is determined by the prerequisites of the MPT/DPT programs to which a student choose to apply.

Admissions requirements

Admissions requirements vary by program but most admissions committees are very selective and are looking for specific prerequisites courses, strong academic and prerequisite course records, the Graduate Record Exam (GRE), quality letters of recommendation, and work or volunteer experience in the field as indicators of potential to succeed. Most

programs require a student to have at least a 3.0 cumulative and prerequisite GPA, although the average GPA for accepted students may be higher. Increasingly, programs are also requiring applicants to have paid or volunteer experience in one or more physical therapy settings and may ask that a student have adult CPR certification. Admission requirements can vary widely from program to program. Most programs require Anatomy, Physiology, the year-long sequences of General Chemistry and Physics, all with laboratory plus courses in psychology and mathematics. Many programs also have additional required and strongly suggested courses.

Universities in California

Azusa Pacific University - www.apu.edu

Chapman University - www.chapman.edu

Loma Linda University - www.llu.edu

Mount St. Mary's College - www.msmc.la.edu

Samuel Merritt College - www.samuelmerritt.edu

University of the Pacific - www.pacific.edu

USC - www.usc.edu/pt

Western University - www.westernu.edu

CSU Fresno - www.csufresno.edu

CSU Long Beach - www.csulb.edu

CSU Northridge - www.hhd.csun.edu/pt/

CSU Sacramento - www.hhs.csus.edu/PT

San Francisco State University - www.sfsu.edu

UC, San Francisco - www.ucsf.edu

Note: Prerequisite admission requirements vary from school to school. Student should check for requirements of the individual schools using the above websites.

Common Requirements for Physical Therapy programs

- Anatomy 025 & Physiology 001
- Biology 011 or 001A & 001B, 001C (or 010A, 010B, 010C)
- Chemistry 001A, 001B (or 002A, 002B)
- Physics 031A, 031B (or 002A, 002B, or 001A, 001B, 001C)
- Microbiology 002
- Economics 01A or 01B
- Mathematics 003 or 07A, 07B, or 05A
- Statistics 018 or 050
- Psychology 001 and 024
- Speech 001 or 010
- CIS 001 or 010

Helpful Website for pre-PT students:

www.apta.org

American Physical Therapy Association

Physician Assistant

Nature of the Work

Physician assistants (PAs) provide a wide range of health care services under the supervision of physicians. They should not be confused with medical assistants, who perform routine clinical and clerical tasks. Many PAs work in primary care areas such as general internal medicine, pediatrics, and family medicine. Others work in specialty areas, such as general and thoracic surgery, emergency medicine, orthopedics, and geriatrics. PAs take medical histories, perform physical exams, order and interpret laboratory tests, diagnose and treat illnesses, counsel patients, assist in surgery, and set fractures. The responsibilities of a PA depend on the practice setting, education, and experience of the PA, and on the state laws and regulations. Physician assistants are required to have leadership skills, self-confidence, and emotional stability. They must be willing to continue studying throughout their career to keep up with medical advances.

Occupational Outlook and Earnings

According to the American Academy of Physician Assistants, the number of practicing PA's has doubled in the last decade, reaching 86,500 in 2013. State laws regulating physician assistants have expanded access to physician services provided by PAs, including the authority to prescribe medications in all 50 states and the District of Columbia, and Guam. The development of HMOs and other prepaid plans and the growing acceptance of PAs by other health care professionals have combined to strengthen the job market for PAs. Employment of PA's is expected to grow much faster than average for all occupations through 2020 (Occupational Outlook Handbook, 2012-2013). According to the American Academy

of Physician Assistant Census 2010 Survey, the median income for physician assistants is \$90,000. The income varies by specialty, practice setting, geographical location, and years of experience.

Physician Assistant Education

There are many entry pathways into the physician assistant profession. Options include certificate of completion, as well as associate, baccalaureate, and master's degree. There are 170 accredited physician assistant programs in the United States, and they are located at medical schools, medical centers, hospitals, two- and four-year colleges and universities, and in the uniformed forces (Physician Assistant Education Association). 113 PA programs offered the Master's degree option and most applicants to PA programs already possess a bachelor's degree at the time of entry. PAs are educated as generalists in medicine; all programs emphasize primary care. PA programs require students to complete 9 to 12 months of classroom studies and then 9 to 15 months of supervised clinical rotations (Association of Physician Assistant Programs). PA education includes classroom instruction in biochemistry, nutrition, human anatomy, physiology, microbiology, clinical pharmacology, clinical medicine, geriatric and home health care, disease prevention, and medical ethics. Students obtain supervised clinical training in several areas, including primary care medicine, inpatient medicine, surgery, obstetrics and gynecology, geriatrics, emergency medicine, psychiatry, and pediatrics.

Major

Any major is appropriate for PA preparation. Students are advised to select a major they find interesting and to work at developing a broad-based, interdisciplinary foundation of knowledge and skills from which they can build upon. Most

PA programs require that applicants have a minimum of two years of college credits and some health care experience prior to admission. Analysis of student enrollment data shows that more than half of those who apply to physician assistant programs already have a college degree (PAEA). The cumulative GPA among those who were admitted in 2011-2012 was 3.51.

Prerequisite Requirements

Prerequisite admission requirements vary from school to school. Selection criteria may also vary according to the individual institution's philosophy, thus refer to the individual program website for detailed information. For a list of programs accredited by the Accreditation Review Commission on Education for Physician Assistant (ARC-PA) visit the Physician Assistant Education Association (PAEA) website www.paeaonline.org, and click on the Member Programs tab.

Common Requirements for Physician Assistant programs

- Anatomy 025 & Physiology 001
- Biology 001A, 001B, 001C (or 010A, 010B, 010C)
- Chemistry 001A, 001B (or 002A & 002B)
- Microbiology 002
- Psychology 001
- Anthropology 002
- Sociology 001
- English 001A, 001B
- Stat 018 or 050

9 PA Programs in CA	Degree Offered
Loma Linda University www.llu.edu	Masters
Riverside City Community College www.rcc.edu/academicPrograms/pa	Certificate
Samuel Merritt www.samuelmerritt.edu	Masters
San Joaquin Valley College www.sjvc.edu/programs/pa2.php	Certificate
Stanford University/ Foothill College http://.pcap.stanford.edu	A.S/ Post BA Certificate
Touro University www.tu.edu	Masters
USC Keck School of Medicine www.usc.edu/schools/medicine	Masters
Western University www.westernu.edu	Masters
UC Davis www.ucdmc.ucdavis.edu/fnppa	Certificate

Helpful Websites for pre-PA Students:

www.PAEAonline.org

Physician Assistant Education Association (PAEA)

www.aapa.org

Association of Physician Assistant Programs

www.caspaonline.org

Central Application Service for Physician Assistants (CASPA)

Veterinary Medicine

Nature of the Work

Veterinarians help animals and people live longer, healthier lives and serve society by preventing and treating animal diseases, improving the quality of the environment ensuring the safety of food, controlling diseases transmitted from animals, and advancing medical knowledge. Prospective veterinarians must have good manual dexterity, an affinity for animals and the ability to get along with animal owners. Additionally, they should be able to quickly make decisions in emergencies. In 2011, there were approximately 92,547 veterinarians practicing in the United States (American Veterinary Medical Association, 2012). The majority of veterinarians are in private, although significant numbers are involved in preventive medicine, regulatory veterinary medicine, military veterinary medicine, laboratory animal medicine, research and development in industry, and teaching and research in a variety of basic science and clinical disciplines (Veterinary Medical School Admission Requirements, 2012-2013).

Occupational Outlook and Earnings

Employment of veterinarians is expected to increase much faster than average for all occupations through the year 2020. In May 2010, the median annual earnings of



veterinarians in practice was \$82,040 (Occupational Outlook Handbook, 2012-2013).

Pre-Veterinary Preparation

There are 28 U.S. and 4 Canadian veterinary medical colleges/schools. Prospective veterinarians must graduate from a 4-year program at an accredited college of veterinary medicine, pass the national veterinarian boards, and obtain a license to practice, which is controlled by each state and province.

Major

Most veterinary medical colleges will only consider applicants who have a minimum grade point average (GPA). The required GPA varies by school, from a low of 2.5 to a high of 3.2. Those who receive offers of admission usually have a GPA of 3.5 or better. Any major is appropriate as long as applicants take the required pre-requisite courses. The pre-requisites for admission vary by veterinary medical college. Many of these colleges do not require a bachelor's degree for admission. However, most of the students admitted have completed an undergraduate program. It is not necessary that a student complete a program specifically labeled "pre-veterinary" or "pre-vet." It is, however, necessary for applicants to complete all prerequisite requirements before enrolling in one of the 28 U.S. or 4 Canadian veterinary medical colleges/schools (Association of American Veterinary Medical Colleges).

Testing Requirements

Standardized test requirements also vary at each school. Applicants must submit test scores from the Graduate Record Examination (GRE-general and/or subject tests) or the

Medical College Admissions Test (MCAT), depending on the preference of each college.

Clinical Experience

Veterinary medical colleges weigh heavily on a candidate's veterinary and animal experience in admissions decisions. Formal experience, such as work with veterinarians or scientists in clinics, agribusiness, research, or in some area of health science, is particularly advantageous. Less formal experience, such as working with animals on a farm or ranch or at a stable or animal shelter, is also helpful. Students must demonstrate ambition and an eagerness to work with animals. Many schools require experience in more than 1 type of animal setting.

Two Educational Institutions in CA

The University of California – Davis
Western University of Health Sciences

Requirements for Admission

Prerequisite requirements vary significantly from one institution to another. For a complete list of specific veterinary school/college prerequisites, please refer to the Veterinary Medical School Admissions Requirements in the United States and Canada (VMSAR), available for viewing at the HPAO resource library or the Association of American Veterinary Medical Colleges (AAVMC) website: www.aavmc.org.

Pre-Veterinary Courses at PCC

- Biology 010A, 010B, 010C (or 001A, 001B, 001C)
- Chemistry 001A, 001B, 008A, 008B
- Physics 031A, 031B (or 001A, 001B, 001C or 002A, 002B*)
- Statistics 050

Notes: 1. * Students who choose to have majors other than Biological Sciences/Chemistry may take Physics 2A & 2B in preparation for veterinary schools. Students who major in engineering should complete Physics 1A, 1B, 1C. 2. The above lists of classes are requirements for most vet schools. For more specific requirements, students should check with individual schools. Some schools will require microbiology and physiology courses as well as specific upper division courses in biology,

Helpful Websites for pre-Vet Students:

www.aavmc.org

Veterinary Medical College Application Service

www.avma.org

American Veterinary Medical Association

www.vetmed.ucdavis.edu

UC Davis, School of Veterinary Medicine

www.westernu.edu

Western University of Health Sciences

Sample Schedules at PCC

for Students Considering Medical and Dental Schools

Possible First Year Classes

-For students who initially place in Math 005A, English 001A, and Chemistry 001A

Fall Semester

Chemistry 001A

English 001A

Math 005A

Psychology 001

Spring Semester

Chemistry 001B

Biology 010A

English 001B or Philosophy 025

Sociology 001

-For students who initially place in Math 131 and English 100.

Fall Semester

Chemistry 022

English 100

Math 131

General Education Class

Spring Semester

Chemistry 001A

English 001A

Math 007A

Psychology 001

-For students who initially place in Math 125 and English 400.

Fall Semester

English 400

Math 125

General Education Class

Elective

Spring Semester

English 100

Math 131

General Education Class

General Education Class

ACTIVITIES:

Fall Semester

Begin pre-health classes

Participate in the

Caduceus Club

Spring Semester

Continue with classes

Continue to participate

Activities for Your First Year

These sample schedules are intended to serve as a general guide to help you plan your classes. The samples include classes required for many health professions students - including those that are required for medical school, dental school, pharmacy, veterinary medicine, optometry, and physical therapy. The sample is based on three “typical” cases depending on your placement. You can decide for yourself which scenario is most like your own situation. In all cases, the sample schedule is based on the assumption that you will be a full time student. Taking classes on a part time basis, while possible, will lengthen the entire process. Please keep in mind that it is better to complete two or three classes per semester with As and Bs than to complete four classes with Cs. Courses completed with Ds or Fs will need to be repeated..

Begin the process of choosing a major in your first year if you have not already done so. Many students who want to enter a health profession assume that they must complete a bachelor’s degree in biology or chemistry. That is not true. You actually have many choices. A degree in biology or chemistry is perfectly appropriate if those are fields of real interest to you, or if they appear to be good alternatives to a career in the health professions. Many successful students choose to complete bachelor’s degrees in fields such as psychology, history, engineering, English, or other majors.

Possible Second Year Classes

-For students who initially place in Math 005A, English 001A, and Chemistry 001A

Fall Semester

Chemistry 008A

Biology 010B

Physics 031A

General Education Class

Spring Semester

Chemistry 008B

Biology 010C

Physics 031B

General Education Class

-For students who initially place in Math 131 and English 100.

Fall Semester

Chemistry 001B
Biology 010A
Math 007B
Sociology 001

Spring Semester

Chemistry 008A
Biology 010B
Math 005A
General Education Class

-For students who initially place in Math 125 and English 400.

Fall Semester

English 001A
Math 007A
Chemistry 022
General Education Class

Spring Semester

English 001B or Philosophy 025
Math 007B
Chemistry 001A
Psychology 001

ACTIVITIES:

Fall Semester

Continue with science classes
Apply to transfer universities
Volunteer in a health setting

Spring Semester

Finish pre-health courses
Decide upon a university to attend
Continue to volunteer

Other Activities for Your Second Year

Select your major, if you have not already done so. Although you still have time to investigate your choices you should have an idea as to which major is best for you, and which university is your first choice for transferring. You might want to visit the Transfer Center located in the L Building, Room 110. You are encouraged to meet with a counselor in L104 to plan a transfer strategy.

If your time and energy permit, work or volunteer in a health related setting. Volunteer experience is critical for en-



tering most health professional programs.

Participate in a campus science or health club. Join university tours, attend conferences, and listen to guest speakers. Consider joining the Caduceus Club – for more information about read this booklet’s description of the Caduceus Club on the back cover.

Begin the process of investigating schools that offer the type of health professional program you want. For medical school obtain a copy of Medical School Admissions Requirements (MSAR). MSAR will provide you with valuable information about class requirements, MCAT scores, and GPAs for all allopathic medical schools. A book titled Admission Requirements of United States and Canadian Dental Schools will provide similar information for dental schools. Another publication titled Pharmacy School Admissions Requirements will provide information about pharmacy programs. All three publications are available in the Transfer Center.

Possible Third Year Classes

-For students who initially place in Math 005A, English 001A, and Chemistry 001A

Upper division classes in your major at the university of choice.

-For students who initially place in Math 131 and English 100.

Fall Semester

Chemistry 008B

Physics 031A

English 001B

or Philosophy 025

General Education Class Elective

Spring Semester

Physics 031B

General Education Class

General Education Class

-For students who initially place in Math 125 and English 400.

Fall Semester

Biology 010A

Chemistry 001B

Math 005A

General Education Class

Spring Semester

Biology 010B

Chemistry 008A

Sociology 001

General Education Class

ACTIVITIES:

Fall Semester

Attend orientation to university

Prepare for MCAT or DAT

Continue with classes

Continue to volunteer

Spring Semester

Take MCAT or DAT

Begin application process for medical school

Organize your letters of recommendation

Other Activities for Your Third Year

Continue to work or volunteer in a hospital, clinic or nursing home. Continue your participation in the Caduceus Club and other campus activities. A student in placing in English 01A and Math 05A should have transferred by this point. Some students may need to spend one or two more semesters at PCC.

Continue to research your long-term plans. Other publica-

tions that you may wish to read are America's Best Graduate Schools by U.S. News and World Report and The Best Medical Schools by the Princeton Review. Both publications are available in many bookstores and online. These publications will provide you with national rankings of most health professional programs and the criteria used to determine those rankings. America's Best Graduate Schools will distinguish between medical schools that are research oriented and those schools that have a primary care orientation. It will also provide rankings of specialties in medicine. The other health professions will be similarly ranked. The Best Medical Schools will provide information on such topics as living arrangements, grading policies, financial aid, and social life.

The MCAT could be taken as early as the spring semester of the third year - if a student is adequately prepared. Otherwise, postpone taking that test until the fall semester of the fourth year. Most students would then apply to medical schools in the summer between the third and fourth years. Students who are preparing for dental school would typically apply in the fall of the fourth year and take the DAT at the same time.

Fourth Year:

ACTIVITIES:

Fall Semester

Send secondary applications to medical school

Send applications to dental, pharmacy, etc.

Take DAT (for dental school)

Go for interviews at schools

Spring Semester

Accept position in a health professional program

Continue with interviews

The Application Process

The health professions offices at many universities have

applications for the centralized application services for medical schools, dental schools, and other programs. Most of these applications are also available on the internet. They are called:

AMCAS - American Medical College Application Service

AACOMAS - American Assn. of Colleges of Osteopathic Medicine Application Service

AADSAS - American Assn. of Dental Schools Application Service

PCAS – Pharmacy College Application Service

CASPA – Central Application Service for Physician Assistants

VMCAS – Veterinary Medical College Application Service

APTA – American Physical Therapy Association

The optometry schools do not participate in a centralized application service.





Volunteering

Volunteering

Many students underestimate the value of volunteering when applying to a professional school in the health area. However, medical schools are looking for evidence of students' commitment and knowledge of the health field. Typically, this is demonstrated through work experience gained from volunteering at hospitals, clinics, and nursing homes. In fact, most medical schools will expect applicants to have volunteered or worked in some capacity at a health facility.

There are many important benefits that students gain from volunteering in a hospital setting. The most important is learning how you as an individual respond to interacting with patients. Physicians deal with patient treatment on a daily basis. Therefore, it is imperative that future physicians feel comfortable in responding to patients' pain, injuries, and the sight of blood. In addition, students will observe how individual physicians respond to patients and observe those qualities they find most desirable and those that they can emulate.

Once you have been accepted to work as a volunteer you should realize the important commitment you are entering. As a student volunteer, you must organize your time in such a way that studying for exams and extra-curricular activities do not interfere with your commitment to the hospital. Remember, dependability is a must because the hospital, clinic, or nursing home is counting on you. Those students who have been responsible and committed volunteers can receive valuable letters of recommendation from site supervisors.

In addition to the hospitals listed below, students may want to contact community-based clinics and nursing homes to inquire about other volunteer opportunities:

Arcadia Methodist Hospital

*300 West Huntington Drive Arcadia, CA 91007
(626) 574-3646*

Requirements: You must be 18 years of age or older. Complete an adult volunteer application. Completed applications must be submitted to the volunteer office. The volunteer office will review all applications and contact prospect volunteers for an interview. Commit to at least one four-hour shift per week or single event. To maintain active status, volunteers must work a minimum of eight hours per month. Commit to a minimum of 100 hours of service to be completed in one calendar year. Obtain immunization and background check. All hospital volunteers must have prior documentation of having received a Tuberculosis (T.B.) skin test within the last year. If you do not have the required verification, the hospital will provide screening testing at no expense to you. Attend department orientation. Be able to perform the essential requirements of the duty, as assigned.

San Gabriel Valley Medical Center

*438 West Las Tunas Drive San Gabriel, CA 91776
(626) 570-6533*

SGVMC appreciates the many individuals who donate their time and talent to assist and patients, visitors, and employees. This medical center welcomes adult and junior volunteers (age 16 and above). Students must be enrolled in college and are required take a tuberculosis test free of charge. San Gabriel Valley Medical Center furnishes a uniform shirt.

Children's Hospital

*4650 Sunset Boulevard Los Angeles, CA 90027
(323) 361-2371*

Many of Children's Hospital volunteers work directly with patients: Assisting in hospital playrooms (and sometimes at the bedside), playing board games, reading to children (requires 10 hours of individual training).

Volunteers are not able to shadow nurses, doctors and clinicians, take vital signs or observe procedures. A six-month minimum commitment is required. It can take two to three months to complete the application process before you may actually begin volunteering. Positions on the waiting list are assigned as applications are accepted, and seats in New Volunteer Orientation are assigned on a first-come, first-served basis. Incomplete applications will not be considered.

Student volunteers must be at least 18 years of age and have health clearance. Tuberculosis clearance is provided by the hospital. You must also complete a one 3-hour General Orientation, usually held on weeknights, a one 2-hour Patient Care Orientation given by the Child Life Department and a personal interview with the volunteer coordinator. Volunteers must purchase a uniform that costs \$15.00.

Huntington Memorial Hospital

*100 West California Blvd. Pasadena, CA 91109
(626) 397-5208*

Volunteers provide assistance to patients, families, visitors and staff, and serve in every area of the hospital. In some areas, volunteers assist staff by performing non-technical tasks, assembling patient charts, discharging patients, or taking specimens to the lab, thereby freeing staff members to perform duties that require more specific medical knowledge or skill. In other areas, volunteers may act as the exclusive providers of certain services, answering phones, or staffing an information desk. In all areas, the commitment of volunteers is critical to the successful completion of a wide range of duties.

To maintain active status, volunteers must work a minimum of eight hours per month. Volunteers who are not currently enrolled in school are asked to commit to one year (100 hours) of service. Students commit to a six-month (40-hour for high school, 50-hour for college) involvement.

Please visit www.huntingtonhospital.com to download a

volunteer application

Kaiser Permanente Los Angeles Medical Center

*Volunteer Services Department 2nd Floor (2301)
4867 Sunset Boulevard Los Angeles, CA 90027
(323) 783-8991*

The Volunteer Services Department at Kaiser Permanente Los Angeles Medical Center has been established to develop and maintain a caring, compassionate and efficient volunteer staff who offers an extra dimension of care and services to patients and their families without replacing regular staff positions.

This department consists of over 200 volunteers, donating over 30,000 hours in 35 different areas of the hospital, mostly in patient care areas.

Many volunteers work directly with patients: assisting in hospital playrooms (and sometimes at the bedside), playing board games, reading to children (*requires 10 hours of individual training*), answering call lights, providing patient support, providing customer service support to our members and their families. They also work in office environments: answering phones, data entry, filing, wayfinding for our members, information desk, and staffing the gift shop.

A commitment of 250 hours per year served our patients needs best. Prior to applying to be a volunteer, please make sure that you can help out for the entire 250 hours required.

We have a special division of volunteers - the Care Ambassador Team - who visits patients on a daily basis, meeting with our members and their family to ensure the best care experience possible.

There are also a small number of administrative volunteers who work at the Guest Services desk and in various clinics and offices within the hospital.

Los Angeles County/ USC Hospital

Volunteer Office, 1st Floor, Room 1K-311

1200 North State Street, Los Angeles, CA 90033
(323) 409-6945

Minimum Requirements:

- A sincere interest in a health care field.
- At least 18 years of age.
- A complete application including a permanent home address with original signature.
- Must reside in Los Angeles County.
- One (1) Southern California non related reference.
- Must be currently enrolled in college pursuing a career in the *health care field* with a minimum accumulative GPA of 3.0 - Must attach current unofficial transcripts to your application.
- If graduated from a four-year college within last year or graduated with a non-health care related field, include a copy of your degree with your application, and current verification of enrollment in college to gain prerequisites in a



health care career (or a copy of MCAT or GRE score taken within the past 12 months). • Your commitment of 200 hours of volunteer service to be completed in one year or sooner. • Attend a mandatory 10-hour Saturday General Orientation and department specific training. • Clear background check by the Department of Justice through LAC+USC Medical Center Human Resources. • Submit health clearance information, e.g. TB test, titers, immunizations, etc. from personal provider or HMO to LAC+USC Medical Center - Employee Health Services (EHS) to receive health clearances. • Must be able to complete all clearances and begin volunteering within 30 days from acceptance into the volunteer program and completion of orientation/training. • Be able to volunteer consistently with a minimum of 4 full hours on a weekly basis until the 200-hour commitment is met.

Alhambra Hospital Medical Center

100 S. Raymond Avenue Alhambra, CA 91801 Volunteer Services Department (626) 570-1606, Ext. 3228

Alhambra Hospital Medical Center is a 144-bed, general acute care hospital that offers the San Gabriel Valley community high quality healthcare in a friendly and comfortable environment. Volunteers perform a variety of duties that aid in providing quality healthcare to the community. An effort is made to place you in an area that you are interested in, with a schedule that works for you and is convenient also!

We encourage high school and college students to provide support to various departments throughout the hospital. AHMC recognizes the “Community Service” requirements of high schools and colleges in the San Gabriel Valley and has created the Volunteer Program to provide adolescents with an opportunity to volunteer in the healthcare setting.

AHMC volunteers are people just like you. They are homemakers, professionals, students and retired men and women of all ages. Volunteering gives you the opportunity to meet

new people, build rewarding friendships, use your existing skills and learn new skills, feel great about yourself while serving your community.

Volunteer shifts are available seven days a week from 8 am to 8 pm if you would like to join us as a student volunteer (ages 15-18) or as an adult volunteer. Volunteers must commit to donating a minimum of four hours a week for six months (100 hours). Please note: AHMC does not place individuals in volunteer service to be trained for paid positions.

Volunteering for Other Health Professions

Pre-Dental, Pre-Optometry, and Pre-Physical Therapy students should consider volunteering in a dental, optometry, or physical therapy office. Interested students should speak to a local dentist, optometrist, or physical therapist with whom they feel compatible and inquire about volunteer possibilities and the chance to observe them at work.

Pre-Pharmacy students may contact the hospitals listed in this handbook and inquire about their specific interest in volunteering in the hospital pharmacy. Students might also consider the possibility of volunteering in a retail (store-based) pharmacy such as CVS and Ride Aid.

Pre-Veterinary students should consider volunteering at a veterinary hospital, local zoo, or humane society.



Research

Undergraduate Research

One of the critical decisions a student must make is whether to follow a research-oriented career, a primary care oriented career, or a blend of both, as in a Ph.D./M.D. type of program. A research-oriented career is also known as “academic medicine”. It is important to have a realistic view of these areas in order to make a wise and fruitful choice, and to develop an understanding of the relationship of research pursuits to clinical applications of the results. There are several ways to gain an understanding of the day-to-day experiences in research.

PCC offers research opportunities in each of the basic core sciences. They are biology 020, chemistry 020, and physics 020. These courses are 1-2 units each, and involve 3-6 hours each week. In these courses, using very basic knowledge, a student can gain experience in setting up a research type investigation of a scientific question, using one of the professor’s as a “research advisor.” To enroll in such a course, it is necessary to meet with the dean of the appropriate division and get his or her approval to register in such a class.

Transfer institutions generally also have courses for credit that give a student an introduction into research using knowledge already gained. For example, both UCLA and USC have research courses at the lower division level and at the upper division level. The upper division courses allow for more advanced research requiring a much stronger background.

Research opportunities at most schools are coordinated by a director of undergraduate research, by departmental offices, or by the pre-health sciences office. Furthermore, all university professors do independent research. As a student, you should become familiar with this research and personally ask professors about available opportunities in their lab as volunteers, as paid research assistants, or for opportunities

in summer projects. Many departments publish pamphlets with summaries of each professor's area of expertise. Always follow your interests—research is much more productive and rewarding if you are working in an area that you enjoy.

The National Institutes of Health (NIH) and many of its subgroups, such as the National Cancer Institute (NCI) offer research opportunities for students. Information about NIH scientists and their projects can be found at: <http://www.nigms.nih.gov/>

Specific research opportunities generally change from year to year. It is very important to become associated with your specific transfer school's health professions advisor or advisory office to ask for access to current opportunities in research.

A student should never do research just to "look good" on health professions school's application. Given the choice, most health professions schools prefer experience in a clinical setting. Generally, research experience is a plus, but for very few research oriented schools, it is not required.

Professional and Personal Development

BE INVOLVED! VOLUNTEER! JOIN CAMPUS ORGANIZATIONS! WHY?

Over the past five years, the applicant pool for health professional schools has been increasing, making it more competitive for applicants to gain admission.

More Than Just Grades and Test Scores

Of course, grades and test scores are critical criteria used by health profession schools to evaluate students. It is important to recognize, however, that medical schools, and other pre-health schools, consider other significant indicators beyond grades and test scores. Factors such as personality, character, the type of community you come from, career plans, letters of recommendation, difficulty of course work, interview impressions, and whether the applicant is from a minority and/or disadvantaged background.

Admissions committees also look at evidence of maturity, integrity, concern with helping others, and quality and quantity of leadership experience.

Letters of Recommendation

Additionally, letters of recommendation from research supervisors and faculty, and those documenting clinical experience are also evaluated. Future applicants should anticipate requesting these letters, and get to know their professors by visiting them during office hours.

Clinical Experience

Clinical experience gained through working or volunteering at a hospital, clinic, or other health care facility is also evaluated. Future applicants should seek out opportunities to talk to, observe, and work with health professionals in their field of choice.

Leaders Are Made, Not Born

Community service and other extracurricular activities are examined for evidence of compassion, leadership, and interest in addressing social problems. Applicants should expect to discuss these experiences in both interviews and in their application essays.

Putting yourself in situations where you must make important decisions involving others will help you get better at making the good decisions based on empathy and the ability to identify with others.

When you involve yourself in extracurricular activities, you develop not only leadership and decision making abilities, but you also increase your creativity, organizational skills, time management skills and general life skills.

This background cannot be developed overnight, so start now!

Campus Involvement: How do I get involved?

STEP 1: Decide what your interests are and join organizations whose goals you feel some commitment to.

STEP 2: Find an organization that fits your interests. A good place to start is the Office of Student Activities (CC105) where students can learn about clubs and volunteer options. Some clubs can be good sources for information for organizations off-campus.

STEP 3: Call or visit the contact person, such as a club advisor. Don't need to feel self-conscious, as organizations

are always looking for new members.

STEP 4: Actively participate in the organization from the beginning. Don't forget that the goal is to have fun and develop skills. Try to earn a leadership position, but this does not mean starting as president. Instead, you should try to learn as much as possible about the mission and goals of the organization. So start with a lower office and work your way up. Generally speaking, it is much better to be a true participant in a few organizations than to be just a member of many.

STEP 5: Stay involved. Also, make sure you are not in so many organizations or volunteering so much of your time that your coursework suffers. Working out a weekly schedule of all your commitments and responsibilities can help you monitor and weigh your priorities.

Here are a few suggestions for campus involvement and summer programs on and off campus. This is not meant to be a conclusive list of PCC clubs and organizations:

Alpha Gamma Sigma

—Alpha Gamma Sigma is an honor society with the goal of promoting academic achievement and volunteerism. Members must have a 3.0 grade point average and are expected to pay dues. Members also must complete service hours for the club and the community in order to be in good standing. AGS students are eligible to apply for various AGS-oriented scholarships offered by the statewide organization. Additionally, some universities offer scholarships only for active AGS students.

Caduceus Club

—This organization is open to all PCC students who are interested in the health professions including medicine, dentistry, pharmacy, physical therapy, chiropractic, optometry, and other fields. Caduceus Club members organize guest speakers to talk about their experience in the health field, partici-

pate in volunteer endeavors, and help each other prepare for transferring to a university. This is a great opportunity to gather information to make a career choice and develop some leadership skills.

The Office of Student Affairs

The Office of Student Affairs offers a wide variety of activities and programs to assist student in achieving a balanced educational experience. There is a broad spectrum of student leadership opportunities, college governance experiences, cultural awareness activities and services, as well as educational, recreational and club programs and events. The office provides volunteer opportunities on campus and in the community.

Campus clubs

-have any of the following areas of focus: recreational, vocational, political, cultural, religious, educational and service. With few exceptions, all PCC students are eligible for membership in the clubs and organizations of their choice. Students may form additional organizations to meet special needs or interests. Consult the office of Student Affairs for more information. The office is located in CC105. Call (626) 585-7384.

Student government

-gives students the opportunity to develop leadership skills, enhance interpersonal communications skills, pursue special interests, and develop critical thinking skills. Consult the Associated Students in CC105 for more information. Call (626) 585-7980.

PCC Honors Program

—This program provides highly motivated students with an enriched educational experience designed to prepare them for a successful transition from community college to university. With partnerships with such institutions as UCLA, Pep-

perdine University, Pomona College, UC Riverside, Occidental College and UC Irvine, the program offers highly enriched academic courses and services provided by specially designated instructional and counseling faculty. Please go to the Counseling Office (L-104) and meet with Mr. Harry Bloodgood for eligibility requirements and program details.

Summer Enrichment Programs

1. UCLA Prep – Pre-Medical Enrichment Program

Prep aims to provide pre-medical and pre-dental students from disadvantaged backgrounds with a means of strengthening their ability and readiness to study medicine or dentistry. As a result of full participation in UCLA PREP's eight-week intensive summer program, participants should enhance their chances of being accepted to medical or dental school and succeeding once there.

Participants are assigned to observe practicing physicians, dentists and medical researchers performing the typical functions of their profession. The clinical settings range from any of the UCLA affiliated hospitals and clinics to private practice settings, community clinics and health maintenance organizations. This invaluable experience allows Prep students to interact with established practitioners who are addressing the constantly changing problems of modern medicine. Students can project themselves into a variety of roles and can make more realistic self-evaluations of their own motivation and intentions surrounding their career choice. In addition, many mentorship relationships grow from these experiences.

For more information: Call 310- 825-3575 or www.medstudent.ucla.edu/offices/aeo/prep.cfm

UCLA School of Medicine, UCLA PREP Office of Academic Enrichment and Outreach 13-154 Center for the Health Sciences Box 956990 Los Angeles, CA 90095

2. Summer Medical and Dental Education Program

Summer Medical and Dental Education Program (SMDEP) is a free (full tuition, housing, and meals) six-week summer academic enrichment program that offers freshman and sophomore college students intensive and personalized medical and dental school preparation.

Program Offerings Include:

- Academic enrichment in the basic sciences (organic chemistry, physics, biology) and pre-calculus/calculus
- Career development
- Learning-skills seminar
- Limited clinical exposure
- A financial-planning workshop

The UCLA SMDEP will serve as a model learning community in which students examine health care issues in medically underserved communities. Through a research project, problem-based learning cases, lectures, clinical experiences, and small-group discussions, students will also improve their learning skills and increase their science knowledge. On completing this six-week program, students will be more aware of the types of health professions needed in medically underserved communities and the educational pathways that lead to those professions.

Targeting educationally and financially disadvantaged community college students, UCLA SMDEP will give students the opportunity to meet and work with other students whose interests in health professions parallel their own. Students will also have the opportunity to work with expert faculty and staff who are eager to mentor students and share knowledge in their individual fields.

Finances

- Meals: Breakfast and dinner, 7 days a week, in residence hall dining commons; lunch available at on-campus eateries at expense of student.
- Travel Assistance: None available.

- Stipend: 1 installment, by the 4th week of program.

Living

- Housing: UCLA dormitories (double capacity rooms).
- Health Insurance: Not provided; scholars are required to provide valid proof of health insurance coverage for the state of California prior to matriculation..

Social Activities

Student initiated Saturday/Sunday tours of places such as the Fowler Museum, Venice Beach Surf and Sand, Santa Monica Beach Exercise Walk, and the Getty Museum.

To be eligible for SMDEP, an applicant must:

- be currently enrolled as a freshman or sophomore in college;
- have a minimum overall GPA of 2.5;
- be a U.S. citizen or hold a permanent resident visa; and
- not have previously participated in SMDEP.

Other factors considered in the admissions process include whether an applicant:

- identifies with a group that is racially/ethnically underrepresented in medicine and/or dentistry (as defined independently by each program site);
- comes from an economically or educationally disadvantaged background;
- has demonstrated interest in issues affecting underserved populations; and
- submits a compelling personal statement and strong letters of recommendation.

Each SMDEP site makes its admissions decisions on a “first come, first served” basis, therefore applying as early as possible increases your chance of being selected at your designated program site(s).

For More Information contact:

UCLA SMDEP

David Geffen School of Medicine at UCLA and UCLA
School of Dentistry

310-825-9573

UCLASMDEP@mednet.ucla.edu

Programs

Post-Baccalaureate Programs

Although most PCC students do not yet have a bachelor's degree from a university, it is important to be aware of post-baccalaureate programs offered at some colleges and universities.

These programs are designed to provide students who already have a bachelor's degree the opportunity to increase their chances for entry into medical, dental, or other health professional schools. Such programs consist of intensive courses in the sciences to improve student knowledge in those areas and prepare the student for graduate level study.

One to two years long, depending upon a student's background, many programs are tailored to the needs of each student. Some programs are geared toward assisting non-science majors or assisting the student in completing courses required for admission to a health professional school. Others stress Medical College Admission Test (MCAT) preparation.

For program details and eligibility requirements, you may contact the following schools in California:

- California State University - Los Angeles: Post-Baccalaureate Certificate Program for Pre-Health Professionals 323-343-2050
- California State University Fullerton: Certificate in Pre-Health Professions Studies 657-278-3561
- California State University, East Bay: Pre-Health Sciences Professional Certificate Program 510-885-4764
- Chapman University: Post Baccalaureate Program 714-997-6696
- Charles R. Drew University of Medicine and Science:

Post Baccalaureate Certificate in Pre Medicine 323-563-4838

- Keck Graduate Institute (Claremont): Postbaccalaureate Premedical Certificate Program 909-607-8590
- Loyola Marymount University: Pre-Medical Post-Baccalaureate Program 310-338-7704
- Mills College: Postbaccalaureate Program 510-430-2317
- San Diego State University: Postbaccalaureate Certificate in Preprofessional Health Preparation 619-594-6638
- San Francisco State University: Pre-Health Professions Certificate Program 415-405-4239
- Scripps College: Post-Baccalaureate Premedical Program 909-621-8764
- UC Berkeley Extension: Post-Baccalaureate Health Professions Certificate Program 510-643-0598
- UC San Diego: Post Baccalaureate Premedical Program 858-534-9265
- University of California, Irvine School of Medicine: Post-baccalaureate Programs 949-824-5388
- University of California, San Francisco: Interprofessional Health Post Baccalaureate Program 415-514-1390
- University of Southern California: Postbaccalaureate Premedical Program 213-821-2354
- Western University of Health Sciences 909-706-3842

Letters

Letters of Recommendation

It is common for health professional programs to ask you for letters of recommendation. Below are some general guidelines on how to organize and request recommendation letters.

Guidelines for Requesting

General Rationale For Letter: The letter of recommendation is an important part of an overall package (including things such as GPA, MCAT scores, etc.) that is used to judge a student's potential success in a particular health professions school. It should contain substantive comments about the student's class performance as well as point out the personal attributes that would enhance their ability to succeed. As such, it should be requested from professors or other individuals who know the student well, and who can write a strong, specific and positive letter. As a general rule, it is recommended that you seek one letter from a biology professor, one letter from a chemistry professor, one letter from a professor of a humanities or social science class, and one letter from someone who has supervised your volunteer, research, or work experience.

Time Line: Be sure to make the request in plenty of time to allow busy professors and others adequate time to prepare a good recommendation. Make the request *two to three weeks* ahead of the due date. Letters of recommendation are usually gathered and organized in your last year of college. They are usually sent out only after they are requested by the schools to which you are applying. Even though you will probably be at a university at the time that you send out your letters, you are welcome to return to any PCC faculty and request a letter of recommendation. If time has elapsed since you last spoke to your evaluator it is appropriate to remind



him or her of your performance in class, your participation in a club, or any other activities which will help to write a strong letter. It is also appropriate to present the recommender a one-page summary of your plans, background, and interests.

Basic Request: State exactly what the recommendation is for—admission to what school, program, semester, etc.; scholarship or award—what particular one, and its criteria (is it academic, financial need, career based, etc.?).

Information Requested: If there are guidelines for the recommendation, include them in the request. For example, sometimes it is requested that leadership qualities be addressed, or special skills, or suitability for specific tasks, etc.

Forms and Formats: If there are special forms to be used, be sure to include them. Sometimes there are special instructions—e.g. “Type student’s name and SS number in the upper right hand corner of each page”—be sure to state them clearly.

Name, Social Security Number, Address, Phone Number, E-Mail Address—where you may be contacted: Include these in your request in case the person providing the recommendation needs to contact you for information. Be sure your name is complete— if the person recommending you knows you by a nickname please provide your full legal name, and type your legal name on your application.

Relationship to Person Writing the Recommendation: State *how* you knew the person from whom you request the recommendation—instructor in a course? Club advisor? Mentor? Research advisor?—for *how long*, and at *what time*. Give the course title, semester and year, or club name and purpose, years involved, offices held, projects accomplished, etc. It is a good idea to give a short biographical essay to the person writing the letter of recommendation. Be sure to include mention of any certificates, awards or other accomplishments you may have achieved.

Give the deadline for the receipt of the recommendation: Be precise—it must be postmarked by ____ or received by ____, etc. Sometimes it is important to indicate the penalty for missing the deadline—e.g., “scholarship will be lost if not received by 12 noon on ____date”.

Give all special instructions for forwarding the recommendation: For example— mail to you to enclose in your application, fax to the school, put in sealed, signed envelope, then give to you, mail to the school, etc. Sometimes a cover page, provided to you, with identifying information, must be included. You must give this to the person writing the recommendation, with specific instructions for its use.

Address to which Recommendation will be sent: State the exact address, including name of person or committee, street address, specific buildings or rooms, city, state and zip code. *Note: If you are intending to apply to a health professions school, then once you have transferred to a university, it is your responsibility to immediately make contact with the*

pre-health advisement committee or office. These committees or offices usually receive your letters of recommendation and then forward them to all of the professional schools to which you apply.

Courtesy: You may want to enclose stamps or double copies of forms, etc., though it is not necessary. Generally, it's not useful to enclose envelopes, since these recommendations are usually done on professional stationary. It's a good idea to send a thank you note just before the deadline, as a gentle reminder to a busy professor, or to make a similar courtesy call.

Follow Up: It is always your *responsibility* to contact the school or place of business, etc., to ensure that your recommendation has been received.

Records: Often, as in applying to health professions schools, you will have multiple requests and applications, etc. Make a special file for each school, with copies of everything sent, and with checklists for requests, deadlines, letters received, etc. Organization of these materials is critical.

Interviews

Health professional programs normally conduct interviews with prospective students. These interviews normally take place in the year prior to entry to a program. Below are questions that you should review and practice answering with a friend or mentor.

Common Interview Questions:

- Tell me about yourself. How would you describe yourself?
- Why do you want to be a doctor/ dentist/ optometrist/ etc.?
- What factors have influenced your decision to seek a professional education in this field?
- Tell me about your experiences at your college/ university.
- What was your most positive academic experience and why? Negative?
- What are your strengths and weaknesses?
- What qualities do you have that will make you a good _____?
- Tell me about your non-academic interests/ hobbies/ sports/ leisure activities.
- Where do you see yourself in 10 years professionally/ personally? In 20 years?
- In what kind of setting would you like to practice?
- Tell me about your clinical experiences? What was your level of patient involvement?
- What experience do you have dealing with people who are ill?
- What has been your experience interacting with people who are very different from you?
- Describe your research project(s).

- How do you handle stress?
- Can you explain the discrepancy between your grades and test scores?
- How do you feel about physician-assisted suicide? Abortion? Socialized medicine?
- What is your opinion of the President's health care reforms?
- What are the biggest health problems facing the country today? In 20 years? Solutions?
- What changes could be made to improve the current health care delivery system?
- What kind of contribution do you hope to make to medicine? Your community?
- Where else have you interviewed? Have you been accepted?
- Are you interested in research or clinical medicine? Why/why not?
- Tell me about a time when you took a leadership role and/or made a significant contribution to an organization, program, or event.
- What was the last book you read/ movie you saw?
- Tell me about your childhood experiences/ family.
- How do you think you have benefited from your undergraduate years?
- What makes you different/distinctive from other applicants? Why should we choose you?
- What are your plans if you are not accepted to medical/ pharmacy/veterinary school?
- Do you have any questions for me? About the school?

For medical school interviews, visit <http://www.studentdoctor.net/interview/index.asp>, which provides applicant feedback from medical school interview experiences at specific schools.

Sources

Information Sources for this Handbook:

Admissions Requirements United States and Canadian Dental Schools The Advisor by the National Association of Advisors for the Health Professions

Medical School Admissions Requirements: Getting Started by the Association of American Medical Colleges

Pharmacy School Admissions Requirements by the American Association of Colleges of Pharmacy Pre dental Advisor's Resource Manual by the American Dental Association

Health Professions Resources 2013 by Health Professions Advising Office: California State University, Long Beach

The Best 168 Medical Schools 2012 Edition by the Princeton Review

Spring 2013 – Revised and Edited by:
Myriam Altounji, Harry Bloodgood, Amy Cheung,
& Edward Martinez



MESA and Caduceus Club

MESA

Math, Engineering, & Science Achievement

The MESA Program is an academic program that supports PCC students with disadvantaged backgrounds to excel in math, engineering, and the natural sciences so they can transfer to universities with majors in these fields. MESA provides:

Student Study Center
Academic Workshops
Orientation Classes
Assistance in the transfer process
Career Advising
Location: IT224 Telephone: 626-585-3053

Caduceus Club

This organization is open to all PCC students who are interested in the health professions including medicine, dentistry, pharmacy, physical therapy, chiropractic, optometry, and other fields. Caduceus Club members organize guest speakers to talk about their experience in the health field, participate in volunteer endeavors, and help each other prepare for transferring to a university. This is a great opportunity to gather information to make a career choice and develop some leadership skills. Come join us!

Meets every Tuesday
at 12 Noon
in Science Village 34



PASADENA
CITY COLLEGE®