Health Professions:

Physician Assistant

- Overview of Profession
- Pre-Requisites
- Application Process Timeline
- Admission Exam- GRE
- Additional Requirements
- Overview of PA school
- Important Websites

Overview of Profession:

(source: www.bls.gov)

1. Overview:
   - Physician assistants (PA’s) practice medicine under the supervision of physicians and surgeons.
   - PA’s are formally trained to provide diagnostic, therapeutic, and preventive healthcare services, as delegated by a physician. Working as members of a healthcare team, they take medical histories, examine and treat patients, order and interpret laboratory tests and x-rays, and make diagnoses. They also treat minor injuries by suturing, splinting, and casting.
   - They may prescribe certain medications.
   - They work under the supervision of a physician. However, PA’s may be the principal care providers in rural or inner-city clinics where a physician is present for only 1 or 2 days each week. In such cases, the PA confers with the supervising physician and other medical professionals as needed and as required by law. PAs also may make house calls or go to hospitals and nursing care facilities to check on patients, after which they report back to the physician.
   - Their duties are determined by the supervising physician and by state law. Aspiring PA’s should investigate the laws and regulations in the states in which they wish to practice.
   - Many PAs work in primary care specialties, such as general internal medicine, pediatrics, and family medicine. Other specialty areas include general and thoracic surgery, emergency medicine, orthopedics, and geriatrics. PAs specializing in surgery provide preoperative and postoperative care and may work as first or second assistants during major surgery.

2. Working Conditions:
   - The work schedules may vary according to the practice setting and often depend on the hours of the supervising physician. The workweek of
hospital-based PA’s may include weekends, nights, or early morning hospital rounds to visit patients. These workers also may be on call.
  o PA’s in clinics on average work a 40-hour week.

3. **Earnings:**
  o The median annual wage in May 2008 was $81,230. The middle 50% earned between $68,210 and $97,070. The lowest 10% earned less than $51,360, and the highest 10% earned more than $110,240. The average salary in June 2012 grew to $93,105.
  o According to the American Academy of Physician Assistants’ 2008 Census Report, median income for physician assistants in full-time clinical practice was $85,710 in 2008; median income for first-year graduates was $74,470.
  o Income varies by specialty, practice setting, geographical location, and years of experience. Employers often pay for their employees’ professional liability insurance, registration fees with the Drug Enforcement Administration, State licensing fees, and credentialing fees.

4. **Job Outlook:**
  o Employment is expected to grow by 39% from 2008 to 2018.
  o Projected rapid job growth reflects the expansion of healthcare industries and an emphasis on cost containment, which results in increasing use of PA’s by healthcare establishments.
  o Physicians and institutions are expected to employ more PA’s to provide primary care and to assist with medical and surgical procedures because PA’s are cost-effective and productive. PA’s can relieve physicians of routine duties and procedures. Healthcare providers will use more PA’s as states continue to expand PAs’ scope of practice by allowing them to perform more procedures.

5. **Employment:**
  o More than 53% of jobs for PA’s were in the offices of physicians.
  o About 24% were in general medical and surgical hospitals, public or private.
  o The rest were mostly in outpatient care centers, including health maintenance organizations; the federal government; and public or private colleges, universities, and professional schools.
  o Very few are self-employed.

**Pre-Requisites:**

The table on the next page shows the courses that are most commonly completed by UC Santa Cruz Students to fulfill PA program pre-requisites. The Career Center recommends that students complete the courses sequenced listed in this table.

**NOTE:** The PA program pre-requisites can differ slightly from school to school. It is important to look at the coursework required for each school you wish to apply to.
<table>
<thead>
<tr>
<th>Course Subject</th>
<th># Quarters</th>
<th>UCSC course sequences most students use to fulfill requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Chemistry</td>
<td>Nearly all schools require 1 quarter of general (inorganic) chemistry, with laboratory</td>
<td>Chem 1A, Chem 1B/ M and Chem 1C/N</td>
</tr>
<tr>
<td>Organic Chemistry</td>
<td>Some schools require 1-2 quarter of organic chemistry, with laboratory</td>
<td>Chem 108A/L and Chem 108B/M</td>
</tr>
<tr>
<td>Mathematics</td>
<td>A lot of schools require 1 quarter of College-level Algebra</td>
<td>Math 2</td>
</tr>
<tr>
<td>Statistics</td>
<td>Some schools require 1 quarter of a statistics course</td>
<td>AMS 5, AMS 7/L, Psych 2, etc.</td>
</tr>
<tr>
<td>Physics</td>
<td>Some schools require 1 quarter of physics, with laboratory</td>
<td>Phys 6A/L Or Phys 5A/L</td>
</tr>
<tr>
<td>Human Anatomy</td>
<td>Nearly all schools require 1 quarter of an anatomy course, with laboratory</td>
<td>Biol 135/L</td>
</tr>
<tr>
<td>Human Physiology</td>
<td>Nearly all schools require 1 quarter of an human physiology course, with laboratory</td>
<td>Biol 130/L</td>
</tr>
<tr>
<td>Microbiology</td>
<td>Nearly all schools require 1 quarter of microbiology, with laboratory</td>
<td>Biol 119/119L</td>
</tr>
<tr>
<td>English Composition</td>
<td>Nearly all schools require 2 or 3 quarters of English Composition</td>
<td>Courses that satisfy the Core Courses and Composition requirements at UCSC will fulfill two quarters of the English coursework requirements for most schools. An additional course in Literature will usually satisfy the remaining quarter.*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Save your course syllabi in case any schools express concern that you did not complete their English requirement.</td>
</tr>
<tr>
<td>Psychology</td>
<td>A lot of schools require 1 quarter of an introductory or general psychology course</td>
<td>Psych 1</td>
</tr>
<tr>
<td>Social Science</td>
<td>A lot of schools require an introductory course in sociology, cultural anthropology, or both</td>
<td>Anthro 2 or Socy 1</td>
</tr>
<tr>
<td>Speech</td>
<td>Some schools require 1 quarter of a speech course</td>
<td>Not offered at UCSC</td>
</tr>
</tbody>
</table>

**Application Process Timeline:**

1. **CASPA**
   - CASPA is the Central Application Service for Physician Assistants, a Web-based application service.
   - Currently, only 108 accredited PA programs participate in the service.
   - If you are applying to a school that does not use the CASPA application service, it is important that you become familiar with the application process and deadlines for that school.

2. **Prior to applying:**
   - Consider these factors when deciding upon where to apply:
     - Location
     - Cost
     - Size
     - Licensure exam passage rates
     - Faculty interests and reputation
     - Job placement history of program graduates.
     - Talk with recent PA graduates, as well as ask PA employers about various programs’ strengths and weaknesses.
   - In addition to the California schools, consider applying to some public or private schools outside of California that accept many (20+) non-resident or non-contract state applicants.
   - Research each program you wish to apply to before submitting your application.
     - Admission requirements
     - Pre-requisite coursework
     - Deadlines
     - Amount and preferences for letters of recommendations
   - Contact your schools to determine what types of references they require and their contact information
   - Compose your personal statement.

3. **Early May**
   - CASPA application is available

4. **June 1st**
   - CASPA application cycle opens
5. **November 1st**  
   - CASPA application cycle ends
6. **January to February**  
   - Conduct interviews
7. **February to April**  
   - Applicants learn if they were admitted
8. **June to September**  
   - Newly admitted students start PA school

**Admission Exam:**

1. **Overview of Graduate Record Exam (GRE):**  
   - Only some U.S. PA schools require applicants to submit GRE exam scores.  
     - To see if the schools you’re applying to require the GRE, check their websites in the admission requirements section, or contact their admissions department, to learn if they require the GRE.  
     - Some schools allow applicants to substitute the MCAT for the GRE.  
   - Approximately a 4 hour standardized multiple-choice computerized-based exam.  
   - Scores are usually available 10 to 15 days after completion of the exam.  
   - No GRE scores older than five years will be accepted.  
   - **Sections:**  
     - Verbal Reasoning - Measures your ability to analyze and evaluate written material and synthesize information obtained from it, analyze relationships among component parts of sentences and recognize relationships among words and concepts.  
     - Quantitative Reasoning - Measures problem-solving ability, focusing on basic concepts of arithmetic, algebra, geometry and data analysis.  
     - Analytical Writing - Measures critical thinking and analytical writing skills, specifically your ability to articulate and support complex ideas clearly and effectively.  
   - **Score:**  
     - The Verbal and Quantitative reasoning sections are out of 800 points, for a maximum score of 1600.  
     - The Analytical writing section is out of 6.0  
     - The maximum score is a 1600 with a 6.0 AWA.
2. **When should students take the GRE?:**  
   - You should take the GRE well in advance of applying to PA school but definitely at least one year prior to your intended start date.  
   - If students want to go straight into PA school, they will need to take the GRE the summer of their junior year.  
   - Students should take the GRE when they can do their best.
• If they can be preparing for the GRE and be taking courses, and do well in both, then they should do that.
• If the student will compromise their grades and/or score by doing both at the same time, the student should prepare for the GRE during the summer or after they have graduated.

3. Dates for exam:
   o Offered daily

Additional Requirements:

1. Most PA schools require applicants to have a minimum of 1,000 to 3,000 hours of direct (hands-on) patient care experience.

2. Examples of preferred clinical experiences:
   o Military medic or corpsman
   o Paramedic/EMT (waiting time not included in hours)
   o Nurse (LVN or RN)
   o Radiology technologist
   o Physical therapist
   o Respiratory therapist
   o Occupational therapist
   o Medical technologist
   o Medical assistant (certified; back office hours only)
   o Athletic trainer
   o Other professions not listed above (e.g. phlebotomy, scribe, etc.) will be considered on a case-by-case basis and are dependent upon the quality of patient interaction.

3. Examples of clinical experiences not preferred:
   o Administrative duties
   o Massage therapy
   o Personal trainer
   o Home care aide
   o Home health aide
   o Pharmacy technician
   o Certified nurse’s aide (except with documented high-quality patient interaction)
   o Shadowing a physician or PA
   o Research with no patient contact
   o Hours received during training programs (e.g. medical school, internship)

Overview of PA School:

1. Overview:
   o Physician assistant educational programs usually take at least 2 years to complete for full-time students.
Most programs are at schools of allied health, academic health centers, medical schools, or 4-year colleges; a few are at community colleges, are part of the military, or are at hospitals.

There are 142 PA Schools in the United States, and 9 in California.

2. **During PA school:**
   - PA education includes classroom and laboratory instruction in subjects like biochemistry, pathology, human anatomy, physiology, clinical pharmacology, clinical medicine, physical diagnosis, and medical ethics.
   - PA programs also include supervised clinical training in several areas, including family medicine, internal medicine, surgery, prenatal care and gynecology, geriatrics, emergency medicine, and pediatrics.
   - Sometimes, PA students serve in one or more of these areas under the supervision of a physician who are seeking to hire a PA. The rotation may lead to permanent employment in one of the areas where the student works.

3. **Licensure and Certification:**
   - All jurisdictions require physician assistants to pass the Physician Assistant National Certifying Examination.
   - Only those who have successfully completed the examination may use the credential “Physician Assistant-Certified.” To remain certified, PA’s must complete 100 hours of continuing medical education every 2 years.
   - Every 6 years, they must pass a recertification examination or complete an alternative program combining learning experiences and a take-home examination.

4. **Specialty:**
   - Some PAs pursue additional education in a specialty. PA postgraduate educational programs are available in areas such as internal medicine, rural primary care, emergency medicine, surgery, pediatrics, neonatology, and occupational medicine.
   - Candidates must be graduates of an accredited program and be certified by the NCCPA.

**Important Websites:**

- Occupational Outlook Handbook
- American Academy Of Physician Assistants-www.aapa.org
- Directory Of Physician Assistant Schools
- Applying To Physician Assistant School-portal.caspaonline.org
- Physician Assistant Education Association-www.paeaonline.org
- Explore Health Careers
- Graduate Record Exam-www.ets.org/online
- PA Focus-pafocus.org