Orthotics & Prosthetics (C.O., C.P., C.P.O.)

Career Descriptions

- **Orthotists** fit external supports and braces (orthoses) for people with weakened or disformed body parts.
- Their goal is to enable individuals to function to the best of their ability.
- Orthotists may also be employed in industry as designers.
- **Prosthetists** produce and fit artificial (prosthetic) limbs to help people with limb loss function more fully.
- Prosthetists may also be employed in industry as designers.
- Both fields combine knowledge of medicine, engineering, and materials science to enhance the lives of people.
- They assess the patient’s history, test muscle strength and range of motion, and evaluate the devices for comfort, stability, and proper fit.
- Some professionals work as either a Prosthetist or Orthotist, others are Certified Prosthetists Orthotists (CPO) and can practice in both disciplines.
- Orthotists and Prosthetists work in a variety of settings: private practice, hospitals, rehabilitation facilities, specialty clinics, nursing homes, and industry.
- These are great careers for people who are problem solvers and who want to have extended relationships with their patients.
- Pedorthics is the practice of evaluating and fabricating footwear and foot orthoses to treat conditions for foot and ankle diseases.
- Ultimately, orthotics and prosthetics combines art, science, engineering, problem-solving, and patient care in unique and interesting ways.

**Becoming an Orthotist and/or Prosthetist**

- A Master’s degree is the minimum educational standard to become a certified practitioner (as of 2013). Currently there are 12 accredited master’s degree programs.
- The residency is the second half of an individual’s education and advancement towards becoming an O&P practitioner. Upon graduation from a CAAHEP-accredited O&P program, students must complete an NCOPE-accredited residency program to gain clinical training and experience in three primary areas: pediatrics, adult, and geriatrics.
- To practice as an Orthotist and/or Prosthetist, individuals must be certified by the American Board for Certification in Orthotics and Prosthetics, Inc.
- After certification individuals may use the credentials of CO (Orthotists), CP (Prosthetist), or CPO (Certified Prosthetist Orthotist).

**Prerequisite Courses**

- Prerequisite courses vary between programs, but typical requirements include at least 1 course each in: biology, chemistry, physics, psychology, algebra or higher math, human anatomy, human physiology.
- All required courses must have a minimum C grade.

<table>
<thead>
<tr>
<th>Common Prerequisite Courses (pre-reqs set by each graduate program but similar to this list)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Requirements</strong></td>
</tr>
<tr>
<td>General Biology with lab</td>
</tr>
<tr>
<td>Anatomy &amp; Physiology</td>
</tr>
<tr>
<td>General Chemistry with lab</td>
</tr>
<tr>
<td>Physics with lab</td>
</tr>
<tr>
<td>Psychology</td>
</tr>
<tr>
<td>College Algebra or higher math</td>
</tr>
<tr>
<td>Additional Required &amp; Recommended Courses at some programs</td>
</tr>
</tbody>
</table>
Job Outlook

- The demand for orthotic and prosthetic services is expected to increase as much as 27% by 2024.
- The Department of Health and Human Services also projects a large increase in diabetic limb loss in the coming years which further increases the need for these professionals.
- The total number of persons with an amputation is expected to increase by at least 47% by 2020.
- Most students are employed before leaving their training programs.
- The median wage of certified Orthotists and Prosthetists is between $64,430 and $75,300 in 2015.

Preparation

- Applicants should gain experience in orthotics and prosthetics by volunteering or working at a hospital, clinical rehabilitation facility, clinical orthotics and prosthetics facility or research facility.
- Laboratory experience such as plaster work, laminating, and vacuum forming are all seen favorably, as is patient contact.
- A minimum of one year of prosthetics or orthotics experience is encouraged.
- Taking the Graduate Record Exam (GRE) is required.
- A TOEFL exam may be required if English is not your first language.

Applying

- Application is made to some programs directly through their graduate programs and to others using a common application system called OPCAS (the Orthotics and Prosthetics Centralized Application Service) and also through their online graduate school applications.
- Early application is recommended as many programs accept only a small number of students.

Fee Assistance

- Visit specific school websites to learn if fee assistance is offered.
- At this time, OPCAS does not offer fee assistance or waivers.
- The Academy of Orthotists & Prosthetists offers scholarships
  http://www.oandp.org/?page=Scholarships
- GRE Fee Reduction Program https://www.ets.org/gre/revised_general/about/fees/reductions/

More Information

- OPCAS (Application service) https://opcas liaisoncas.com/applicant-ux/#!/login
- American Academy of Orthotists and Prosthetists http://www.oandp.org
- Orthotics & Prosthetics (from AAOP) http://www.opcareers.org
- National Commission on Orthotic & Prosthetic Education http://www.ncope.org

Programs in the Region

- Northwestern University Chicago, IL http://www.nupoc.northwestern.edu/
- Eastern Michigan University Ypsilanti, MI http://www.emich.edu/chhs/hphp/orpr/
- University of Pittsburgh Pittsburgh, PA https://www.shrs.pitt.edu/po