Midterm Fall 2010

IPRO 309: Orthotics & Prosthetics Education for Latin America and the US

Advisor: Professor Meade

H.O.P.E
Human Orthotic and Prosthetic Education
Definitions

**Prosthesis** – An artificial part designed to replace a missing human body part, such as a limb.

**Orthosis** - A device designed to provide support to ailing, frail or malfunctioning joints and/or muscles.

Definitions - Continued

- **NCOPE** – National Commission on Orthotics and Prosthetics Education is the U.S accrediting body for the educational programs for Orthotic and Prosthetic practitioners.
- **ISPO** – International Society for Prosthetics and Orthotics is an international organization that contributes to all aspects of prosthetic care, orthotic care, and rehabilitation engineering
  - **Category I** – Prosthetist/Orthotist
  - **Category II** – Orthopaedic Technologist
  - **Category III** – Prosthetic/Orthotic Technician

Retrieved from:
www.ispoint.org
www.ncope.org
Problem Statement

Background

- Latin America (total population 520 million) has an estimated 2.5 million people in need of orthotic and prosthetic (O&P) treatments
- Approximately 50 certified & 1500 uncertified O&P practitioners in Latin America

Our Focus

- Seeking to expand the accessibility of quality O&P education in Latin America

Retrieved from:
- Public Reference Bureau [www.prb.org](http://www.prb.org)
- ISPO O&P statistics survey in Colombia
IPRO Objectives

- Design an interdisciplinary team-based capstone course that can be integrated within an existing O&P program

- Improve patient care by instructing the O&P students in new methods of patient education.
Learning Objectives

- The course aims to improve students’ teamwork performance through hands-on experiences
- The course provides students with practical information to supplement theoretical information from didactic courses
- The course emphasizes proper planning and implementation of patient education
Team Organization

The International Society for Orthotics and Prosthetics (ISPO) defined 3 categories of O&P professions: Category I, II, and III

CATEGORY I
Prosthetist/Orthotist

Olivia Rovegno
Soha Zahir
Matthew Song
Michael Muller

CATEGORY II
Orthopaedic Technologist

Wen Chan
Sydney Williams
Rafael Sosa
Katherine Garczek

CATEGORY III
Prosthetic/Orthotic Technician

Alex Luttinen
Jessica Shaw
Krystian Link
Christopher Fistek

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Research and Tasks

- Conduct research on existing O&P curricula through
  - NCOPE accreditation standards
  - Schools listed under NCOPE
  - ISPO category information packages
- Become familiar with the work of previous IPRO teams.
- Attend field trips to BioConcepts, Inc. and Children’s Memorial Hospital – Learn the process of building an orthotic device through hands-on experience.
Team Organization Cont’d.

- **Meetings:**
  - During class time
  - Sub-group meetings outside of class

- **Communication**
  - Via iGroups
  - Via email
  - In-person after the end of class
Progress: Syllabus for New Course

- **GOAL:** Design an interdisciplinary capstone course model involving all three categories of students: I, II, and III

- **TIME PERIOD:** One semester, possibly extending to one academic year

- **HOW:** Project-based, hands-on, evaluation and treatment of patients

- **TEAM:** At least one student from each ISPO category, certified O&P professionals, patients, physicians, and physical therapists

- **WHY?** - Success highly dependent on

  - **Teamwork**
Sub-Group Objectives

* **Category I** students will participate as full members of the clinical team, take part in examination & prescription, and advise on the design of the prosthetic/orthotic devices.

* **Category II** students will assist Category I professionals, participate as full members of the clinical team, take part in examination & prescription, and advise on the design of the prosthetic/orthotic device interface.

* **Category III** students will fabricate O&P devices according to the provided specifications and based on the patient needs.

Retrieved from: http://www.ispoint.org
# Course Milestones

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| 1         | • Form teams  
           | • Understand individual professional roles |
| 2         | • Troubleshoot defective devices  
           | • Or make improvements and modifications  
           | • This serves as Midterm evaluation |
| 3         | • Patient treatment  
           | • Instructor supervision  
           | • Patient review, instructor rating, peer evaluation  
           | Final report |
Major Obstacles Encountered

- Incorporate individuals’ professional interests while maintaining productivity.
- Become acquainted with team members on a personal level in order to facilitate cooperation.
- Set a specific goal, i.e., designing a new interdisciplinary team capstone course.
Anticipated Major Challenges

* Language Barrier: Materials need to be translated between English and Spanish

* Professional Advice: Insight on current orthotics and prosthetics education is needed from current workers in the field

* Cohesion of Course: All three O&P categories must be incorporated into an effective, team-based capstone course
Ethical Obstacles and Challenges

- Proper Patient Evaluation: Students will still be monitored by an O&P professional when treating patients.

- Informed Consent: Volunteer patients will be evaluated and treated only after having been given informed consent.

- Institutional Review Board: The ethical implications of such a course will be additionally examined by the IRB.
¿Preguntas?