

IPRO

It takes a team!

INTERPROFESSIONAL PROJECTS PROGRAM

Orthotics and Prosthetics in Latin America

IPRO 309



Human Orthotic and Prosthetic Education

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Motto: "Estamos ayudando a nuestros amigos, one step at a time."

1.0 BACKGROUND

There exists a strong demand for orthotics and prosthetics (O & P) in Latin America, with approximately 2.5 million people in need of this type of care. IPRO 309 was started in the spring of 2006 with the goal of helping to make this type of care more readily available. However, there are only 50 certified and 1500 uncertified, O & P practitioners in Latin America. In order to become a certified practitioner, a student must graduate from an ISPO accredited program. Unfortunately, there is currently only one ISPO accredited program in existence in Latin America, along with several other programs that are not ISPO accredited. In October of 2004, Centro Don Bosco (Bogotá, Colombia), Don Bosco University (San Salvador, El Salvador), and the Laboratorio Gilette (Bogotá, Colombia) signed an agreement to establish the first accredited O & P education program in Colombia. Since then, Centro Don Bosco has allotted 3,500 square feet of space for the thriving faculty, classrooms, manufacturing training, and vocational workspace that are necessary for an ISPO accredited program.

There are three levels of accreditation according to ISPO standards. Category III involves the design and manufacturing of orthotic and prosthetic devices, Category II includes the fabrication of the devices as well as direct patient care, and Category I includes production, treatment for patients, and research and development. The equivalent to ISPO in the United States is the American Board of Certification in Orthotics and Prosthetics (ABC). Because it is independent from the ISPO, the ABC standards of accreditation will need to be taken into account in order to carefully cross cultural and national boundaries.

Now that the program has started at Centro Don Bosco in Bogotá and the goal is to achieve Category III accreditation. For students who begin the program, the chances for career advancement are greatly increased with the possibility of attaining Category II (or further) certification. Classes opened first in February 2005 with 17 students. Though the number of students may be small, their impact will be massive; in one year, each student can produce over 250 orthotic and prosthetic devices. The first graduating class can therefore affect a total of over 100,000 patients throughout a projected career of 25 years. This can be accelerated with the aid of IPRO 309 by creating educational modules necessary for the program to receive ISPO accreditation while providing basic material to students interested in the program.

In addition, several other institutes have joined to provide education and care to those in need. These institutions are listed below.

- Universidad de los Andes; Bogotá, Colombia
- La Escuela Colombiana de Rehabilitación; Bogotá, Colombia
- Centro Don Bosco, Bogotá; Colombia
- Laboratorio Gilette, Bogotá; Colombia
- Bioconcepts, Inc.; Burr Ridge, IL
- Dynamic Orthotics and Prosthetics; Houston, TX
- Children's Memorial Hospital; Chicago, IL
- Joliet Junior College Tech Prep Program; Joliet, IL

- Northwestern University Prosthetics and Orthotics Center; Chicago, IL
- Illinois Institute of Technology, Chicago, IL

2.0 OBJECTIVES

IPRO Objective:

The overall goal of our IPRO team is to create a program for delivering orthotics and prosthetics that is sustainable. This will be accomplished by improving the quality of the product by increasing availability of funding, improving cost effectiveness of prosthetics, and promoting awareness of treatment available. Our IPRO team has been split up into three subgroups which are outlined below.

IPRO Subgroup Objectives:

Subgroup 1: Consolidating Past Research

This subgroup will consolidate, organize, and summarize research done by past IPRO 309 teams. There has been a need for such a subgroup for some time. Materials will be organized in a binder and uploaded to a website for easy access. These materials will then be used to develop a curriculum that meets standards set forth by ISPO.

Subgroup 2: Developing an Educational Model

This subgroup will research information about O&P devices and develop a model to be used as a teaching tool. This subgroup will learn about the various processes involved in making an O&P device. They will also learn about the many types of O&P devices and the standards set forth by ISO for said devices.

Subgroup 3: Addressing Psychosocial Aspects

This subgroup will research the psychosocial aspects of needing and learning to use an O&P device. Psychosocial aspects are far too often overlooked in the care of individuals who need O&P devices. This subgroup will focus on integrating psychosocial education within the curriculum.

4.0 Team Values Statement

1. Privacy (HIPAA)
2. Show up to class on time/don't skip
3. Respect the opinions & input of others
4. Contribute & participate
5. Learn something new
6. Patients and understanding
7. Accountability

3.0 METHODOLOGY/EXPECTED RESULTS

3.1 Group Methodology

This IPRO seeks to build a sustainable program and propose a method to increase the efficiency of Prosthetics and Orthotics education in Latin America. This will be accomplished by working closely with Don Bosco University, Colombia and Joliet Junior College, Illinois after getting exposure to what has been accomplished so far. The project team will aim to make use of every member's individual skills and strengths. The IPRO team realizes that there is a shortage of ISPO-accredited Category I educational programs. The team seeks to address this issue by developing a curriculum that could be easily implemented by universities in Latin America and other parts of the world. In addition, the group plans to work towards increasing effectiveness in the devices, and promoting social awareness of Prosthetics and Orthotics through education materials.

In order to accomplish the problems set forth in part A, the IPRO group began analyzing the work that was done in the IPRO since it started in 2006. This was done to observe the areas where the group could be able to provide aid for efficiency. Three sub-groups were then formed consisting of three members working on an area requiring growth and improvement. The following are the three sub-groups:

- Consolidating Past Research*
- Developing an Educational Model*
- Addressing Psychosocial Aspects*

The team will work towards a common goal, and wishes to propose the goal with appropriate reasons to Don Bosco University, Colombia. Each sub-group has identified all of the tasks that must be completed in order to fulfill the goals as well as reach the main objective of the IPRO project. Research will be conducted by individual sub-group into current technical and business states of the IPRO project by observing the work of previous semesters, specifically their deliverables. Research will be conducted to discover what resources are available (technology, financial resources), and the use of comparative effectiveness research will be utilized.

3.2 Communication

The three groups will collaborate and combine information. Weekly updates including timelines specific to goals will be required for the remainder of the semester. Each subgroup will host separate meetings between each session. Every Tuesday session of the IPRO, subgroups will be required to give the entire team a 5-10 minute presentation on their current progress and goals for the upcoming week. In addition, groups will communicate use the iGroups portal to send emails and upload files.

3.3 Expected Results

IPRO 309 expects to develop a curriculum that meets ISPO accreditation standards and that could be easily implemented within universities. Information and education on psychosocial aspects will be included within said curriculum. Members seek to expand their personal knowledge of O&P devices and the multifaceted aspects that accompany the need and use of the devices. Members will also learn about the culture and specific needs of Latin America.

4.0 PROJECT BUDGET

Without a concrete amount of funds being appropriated to IPRO 309, this is a breakdown of projected areas in which funds may be needed and in the order in which they are most necessary.

ITEM	UNIT PRICE	QTY	PRICE	PURPOSE
Field Trips	\$50	3	\$150.00	To have a better knowledge of Orthotics and Prosthetics.
photocopies /computer printing	\$20.00	5	\$100.00	Surveys
Total:				\$250.00

5.0 TEAM STRUCTURE AND ASSIGNMENTS

5.1 Team Strengths and Skills

Team Member	Skills	Learning needs	Expectations	
Ashley, Trevor	-Problem solving -Leadership within a group, -Willingness to learn to skills	-Working with others that don't share the same ideas as me and to compromise with them	To learn something about the materials and bio-mechanics of prosthetics and orthotics	
Fischer, Stephanie	-Medical Terminology -Anatomy -Previous Experience	-Continue learning more about O&P -Develop Team Work Skills	To continue learning and hopes everyone does there part	
Kim, Joseph	-Creativity	-Learn more about leadership		
Kumontoy, Allton	-Adobe Illustrator -Photoshop -Indesign	-3D Studio Max -Auto CAD	-Gain a better understanding of the Orthotics and Prosthetic field	To learn more about Orthotics and Prosthetics
Lasowsky, Oksana	-Informal education		-Learn more about O&P and the customer we are designing the device for	Learn more about the education process and teaching people how to use O&P devices
Miller, Luke	-Analytical Problem Solving -Mechanical and Civil Engineering	-Team Work -Project Management	Accomplish something tangible	
Sardi, Carlos	-Mechanical Engineer -Fluent in Spanish -Knowledge with Latin American Culture	-Develop Organizational Skills -Getting to Class on time -Working in a team setting	Have fun and learn how to we can help other people with prosthetic and orthotic devices	
Shaw, Jessica	-Organizational Skills -Good writing skills -Speaking and Presentation Skills -Creating Itineraries	-Improving Spanish speaking and understanding -Learn about O&P -Understand Culture of Colombia	To bond with the IPRO team and learn more about O&P devices. Also learning more about Latin American Culture	
Song, Matthew	-Overlook differences to accomplish a task	-Leadership Skills -Learn more about O&P	Learn about the IPRO system and make a difference in Latin America	