

IPRO 309

Orthotic and Prosthetic Education for Latin America and the United States

Objective

The primary objective of IPRO 309 is to support the development of the first Category III Orthotics & Prosthetics Technician training program in Colombia. To help the program obtain accreditation from the International Society of Prosthetics and Orthotics (ISPO), several educational modules covering common pathologies (conditions) and their fabrication steps for orthotic & prosthetic treatments were developed. ISPO requirements were followed, and all material was translated into Spanish for use in Colombia, as well as other countries in Latin America and in the United States. The secondary objective of IPRO 309 is to provide the same support to the Joliet Junior College (JJC) Orthotics and Prosthetics program, which is nearly identical in content to the one being developed for Centro Don Bosco in Bogotá, Colombia.

Basic Organization and Tasks

IPRO 309 delegated responsibilities, creating three sub-teams specific to the upper limb, lower limb, and spine physiologies for orthotic and prosthetic devices. Initial research began with the exploration of various pathologies based on the physiologies. The sub-teams then made trips to BioConcepts in Hinsdale, Illinois, to fabricate the orthotic devices normally used to treat the pathologies they studied. Finally, based on their experiences, the sub-teams then created PowerPoint presentations and brochures that were translated to Spanish.

Accomplishments

The sub-teams generated three educational modules covering the upper limb, lower limb, and spine physiological groups. These include PowerPoint presentations, pamphlets highlighting the information presented, and vocabulary sheets defining the technical terms introduced in the presentations.

Critical Barriers and Obstacles

The IPRO 309 team faced many obstacles within the team. Attendance rates were very low, and an effort to eliminate the absence rate failed. Also, none of the team members had taken an IPRO before, so it was a challenge to determine what needed to be done and how to do it. Additionally, there is very little detailed information on the internet concerning fabrication of orthoses and prostheses, so most material within the PowerPoints was based on the experiences of the team members during fabrication. Next, targeting the audience, which is high school students, was a top priority; it was paramount that enough information was provided so that the students would understand the pathologies and treatment options, while still ensuring that they would not be overwhelmed with too much information.

Conclusion

IPRO 309 made significant progress, continuing the work of previous semesters. As a result, a broad educational base has been established for training orthotic and prosthetic technicians in Bogotá, Colombia and at Joliet Junior College.

Next Steps

IPRO 309 will continue during the spring semester of 2009, working to address additional ISPO learning objectives including ethics, management, teamwork, and communications skills, as well as potentially exploring the business aspects involved in opening an orthotic and prosthetic fabrication facility.

Faculty & Advisors: Dr. Kevin Meade

Student Members: Danielle Madere (BME), Stephanie Fischer (CSCI), Mrigank Bhatia (CS), Manuel Castro (MMAE), Christopher Salgado (SSCI), Alexander Rial (MMAE), Raymond Harris (BME), Claude Antony (PSYC), Caleb Hallgren (PS), Cristina Kovacs (CSCI)