

## 1. Abstract

Many people around the world are in need of orthotic and/or prosthetic care due to pathologies that cannot be effectively treated any other way. There is a great need for establishing and sustaining educational opportunities. Our IPRO focuses on the population of South America, and more specifically Colombia. Our goal is to provide them with educational information to support their existing Orthotic and Prosthetic (O&P) Technician training program at Centro don Bosco in Bogotá. We will continue the work of previous IPROs by creating modules that concentrate on O&P solutions to pathologies that occur on different areas of the body, specifically upper limb, spine, and lower limb. This semester we will also test the effectiveness of our educational modules by using the modules exclusively to fabricate an actual orthotic device. Our modules will also be translated to Spanish for the audience in Colombia.

## 1. Background

1. The project is sponsored by IIT and is working to develop educational materials for Centro Don Bosco in Bogotá, Colombia as well as Joliet Junior College in Joliet, Illinois.
2. There exists a vast need for orthotics and prosthetics education in Latin America due the large number of un-serviced orthotics and prosthetics patients present. Centro Don Bosco needs to become an accredited International Society of Orthotics and Prosthetics (ISPO) Category III program. In order to achieve Category III accreditation, there is a need to create educational materials in order to give the school the resources to train technicians to manufacture and assemble orthoses and prostheses. Since the IPRO is working with Colombia, there is also a language barrier that needs to be overcome.
3. The science and technology used in this IPRO are existing textbooks, websites, power points, and other educational material. Previous IPRO 309 groups have successfully created valuable educational material for the Centro Don Bosco program, which is currently being used in the prosthetics and orthotics program at Joliet Junior College. In order to address the issue of the language barrier, students in the class are translating the educational modules and pamphlets that are created.
4. Previous IPRO groups have developed educational materials that will not only be used at Centro Don Bosco, but is currently being used at Joliet Junior College in Illinois. All previous IPRO 309 materials are found on their respective websites and can be easily accessed for reference. This semester, the IPRO is making more educational material, while also looking through the previous IPROs modules, in order to fabricate orthotics for each subgroup.

5. The Health Insurance Portability and Accountability Act (HIPPA) is a very big part of this IPRO. Since orthotics and prosthetics deal with actual patients, laws regarding the privacy of patients need to be obeyed, such as patient confidentiality. Also, ethics play a large role in the IPRO because the IPRO directly affects those in need of an orthosis or prosthesis.
6. The Team Charter is attached.

## 2. Objectives

1. As a team, the main objectives are to raise awareness of the need for educational programs for orthotics and prosthetics in Latin America, as well as to test previous IPRO 309 materials to determine if they are of good enough quality to fabricate actual orthoses and prostheses. Individual goals can be viewed on the team charter.
2. Awareness of the need will be met through the team member in charge of press relations. Old IPRO 309 material will be tested by the accuracy and ability to replicate based on the processes given by the educational material.

## 4. Methodology

Note: See attached Project Plan Microsoft Project WBS.

- A. Create a PowerPoint Presentation of respective pathology
  1. Create an informative PowerPoint presentation about assigned pathologies. Include general information, symptoms, causes, treatments (including the types of prosthetic and orthotic devices used to correct it), etc. For examples, reference:
    - <http://www.iit.edu/~ipro309s07/projects/projects.html>
    - Reference the IPRO material from the spring of 2007 via the link provided above
    - If necessary, pull in other outside sources for the PowerPoint
    - Meet with subgroup to put together presentation
    - After presenting, receive feedback from class/professor, make necessary changes to final presentation
  2. PowerPoint presentations should take approximately 3-6 hours to create, and about 10-20 minutes to present
  3. PowerPoint due by October 7, 2008
- B. Individual Pathology Pamphlets
  1. Create a pamphlet with information that you would find useful/important. This is more of a rough draft so we can compile our final brochure ahead of time to allow for translation.
    - Based off the old IPRO material/new PowerPoint presentation, create a brochure with information

- □ □ □ □ Bring to the class, make necessary adjustments

- This brochure will provide the most important information that will be used in the final IPRO day brochure

2. Will take approximately 1-2 hours to create
3. Pamphlets due by October 14, 2008

#### C. Orthotic Device Creation

1. Orthotic devices need to have been created. Devices will depend on the respective subgroup, and potentially focus on the respective pathologies.

- Make contact with BioConcepts
- Arrange a date that works for the subgroup/BioConcepts
- Do research/collect IPRO material that discusses the steps in making an orthoses
- Go to BioConcepts with the material and fabricate an orthoses
- Make necessary adjustments to the material used to fabricate the orthoses

2. Approximately 10-15 hours to create.
3. Orthotic devices need to be created by November 4, 2008.

#### D. IPRO Presentation Draft

1. Have a rough PowerPoint/presentation created as if we were in the process of presenting it for IPRO Day.

- As a team, reference old IPRO day presentations
- Collaborate and develop the new presentation draft

2. Approximately 10-20 hours to create.
3. Completed by November 11, 2008.

#### E. Final IPRO Presentation

1. PowerPoint and other aspects of the IPRO Day presentation prepared and ready to go so Dr. Jacobius come in and critique.

- Have the final presentation ready as if it were IPRO day
- Dr. Jacobius will critique, necessary adjustments will be made

2. Approximately 10-20 hours to complete.
3. Completed by November 25, 2008.

#### F. Final IPRO Pamphlets

1. Pamphlets about all respective pathologies and subgroups need to be created and finalized (translated to Spanish and Portuguese; printed off and ready to be handed out)

- Pamphlets that contain the most important information about the IPRO need to be created to hand out on IPRO day
  - Translated into Portuguese and Spanish (as well as English)
  - Printed out and ready for distribution
2. Approximately 5-20 (depending on translation speeds) to finalize
  3. Completed by December 2, 2008

## 5. Project Budget

- A. General Office Supplies
  1. General Office Supplies-- paper, writing utensils, IPRO Day Project Description display board: \$200
- B. Field Trips
  1. Northwestern University, BioConcepts, Rehabilitation Institute of Chicago, Children's Memorial Hospital for up to 12 people: \$600
- C. Orthotic Devices
  1. 3 devices times 3 subgroups, an average of \$400 per devices in materials: \$3600
- D. PR Related Costs (paper, etc.)
  1. Sending in articles, spearheading fundraising events: \$600
- E. Brochure Funds
  1. The creation of informational brochures/pamphlets in English, Spanish, and Portuguese: \$600

## 6. Team Structure and Assignments

- A. See attached Team Charter