- Latin America > 500 million people

- People need Orthotic and Prosthetic (O&P) treatment > 2.5 million

- Only 50 International Society for Prosthetics and Orthotics (ISPO) certified & 1500 uncertified O&P practitioners in Latin America

- Limited educational opportunities in O&P
  -- Only ISPO certified facility in El Salvador

- Limited opportunities and practitioners leads inadequate or no care
- Develop educational modules:
  - Case Studies
  - Presentations

To assist the training of technician programs at Centro Don Bosco and Joliet Junior College

- Improve education of proper treatment process
We are 7th semester:

- 1st semester: Biomechanics
- 2nd semester: Anatomy & Measurements
- 3rd & 4th semesters: Pathologies
- 5th semester: Age Relation
- 6th semester: Pathologies and Orthotic Fabrication
- 7th semester: Interdisciplinary Treatment Teamwork
Improved communication, understanding, and teamwork guarantees the best treatment.
- Develop educational modules emphasizing interdisciplinary teamwork;
- Translate modules into Spanish for use in Latin America
- Understand Professional roles in treatment process
- Create presentations and case studies based on realistic patient information
TEAM STRUCTURE

IPRO 309
H.O.P.E

Age

Profession
Patient

Physician
- Physical Examination
- Patient Education
- Specify Activity Level

O&P Technician
- Fabrication
- Patient Education
- Repair and Modify

Physical Therapist
- Training Exercises
- Patient Education
- Rehabilitation Schedule

Financial Consultant
- Provide Financial Advices
- Patient Education

Personal Responsibility
- Realistic Expectations
- Working Relationship
Orthosis
Prosthesis
Transfemoral
Transtibial
K Levels
Bilateral
Unilateral
INTRODUCTION TO CASE STUDIES

- One case study per age group
- Build fictional characters based on facts
- Focused on lower limb prosthesis:
  - Bilateral and Unilateral
  - Transfemoral and Transtibial
- Demonstrated positive rehabilitation teamwork

- Students will understand:
  - Causes of amputation
  - Scope of practice
  - Activities of Daily Living
  - Quality of Life
  - Pain Management
  - Costs of Prosthesis
Case Study:

**Name:** Miguel

**Age:** 7

**Occupation:** NA

**Cause of Amputation:** Congenital Limb Deficiency

**Initial Treatment:** K4 Level Prosthesis

**Complications:**

Pain in residual limb as well as lower back due to poor communication between O & P technician and PT

**Modified Treatment:** Prosthesis of adequate length

**Lessons Learned:** Pediatric require monitoring for growth
Cause of Amputation: Battle Injury

Initial Treatment: K3 Level Prosthesis

Complications: Skin Allergy of Residual Limb initially unknown to patient and physician

Modified Treatment: Immediate care of skin rash Replace prosthetic sock

Lessons Learned: Over-expectation of treatment Unknown ailments Family stress

Name: Leslie
Age: 30
Occupation: Soldier
Name: Gertrude
Age: 75
Ethnicity: German immigrant

Cause of Amputation:
Diabetes
Right trans-tibial

Initial Treatment:
K1 Level Prosthesis—very limited

Complications:
Change of K level (from K1 to K2)
Obesity, osteoporosis, & prior knee replacements
initially unknown to technician
Lack of family assistance

Modified Treatment:
Change of suspension and ankle/foot system
Increased intensity in PT training

Lessons Learned:
Patient miscommunication with professionals
Multiple Ailments
Family stress/Financial Concern
RISKS AND CHALLENGES

- Insufficient experience
- Group size
- Spanish fluency
- Ethical concern
- Lack of funding
- Field trips
- Time Management
- Ethical Compliance
- Coordinator
- Expert Review
-Case Studies

- Presentations

- Translation of material to Spanish
- Help Centro Don Bosco to achieve ISPO accreditation

- Help O&P students understand the different roles and improve the patient treatment process
- Attend conference and present in Bogota May 2009

- Assess and design business plan to sustain the O&P program in Centro Don Bosco