

# IPRO309: Orthotics and Prosthetics Education in Latin America and US

Professor Meade

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Emily Moore, Stefanie Rozborski,  
Heather Selby, Ryan Yarzak

# Maas



Untreated



With orthosis

## Problem

- 2.5 million people with disabilities and unmet needs
- One accredited O&P educational program
- Less than 50 certified practitioners and 1,500 uncertified practitioners

## Purpose

- To improve the opportunities to learn about orthotics and prosthetics in Latin America and the United States
- Support development of first Category III International Society for Prosthetics and Orthotics (ISPO O&P Technician) program in Latin America (Bogotá, Colombia)
- Support development of the orthotics and prosthetics technician program at Joliet Junior College (similar to the program in Colombia)



## Bryan Malas, MHPE, CO, CPed



## IPRO 309 History

- First IPRO 309 - Spring Semester 2006
  - Conference in Bogotá in May 2006 (5 IIT students attended and presented modules)
- Continuation of IPRO 309 in Fall Semester 2006 and Spring Semester 2007
  - Conference in Bogotá in May 2007 (5 IIT students attended and presented modules)
- Continuation of IPRO 309 in Fall Semester 2007
  - Material to be presented at Joliet Junior College in December
- IPRO 309 continuing through Spring Semester 2008
- Similar program to begin Spring 2008 at Universidad de los Andes (Colombia)



## Goals

- 3 educational modules:
  - Club foot
  - Spinal Trauma
  - Stroke
- Translate modules into Spanish for use in Latin American schools and Joliet Junior College (JJC)
- Presenting at an open house this fall at JJC (recruiting students)





# Team Organization

## 3 Subgroups

- Club Foot
- Spinal Trauma
- Stroke

### Denis I – Anterior compression



- An anterior compression fracture is an injury of the spine in which the front side, or anterior column, of the vertebra is injured. The spine is bent, or flexed, when a force is applied to the spine.

### Deformities in Club Foot



- Ankle joint is flexed (Equinus deformity)
- Heel is turned in (Varus deformity)
- High medial arch (Cavus deformity)
- Foot is bean shaped and curled outer border (Adductus deformity)

[www.global-e-pub.com/publications/books/4/e/p\\_ojasetip.pdf](http://www.global-e-pub.com/publications/books/4/e/p_ojasetip.pdf)

### What happens when you have a stroke?

- The rupture or blockage prevents the brain from getting the blood and oxygen that it needs to function in a healthy way.
- There are two types of stroke: *hemorrhagic* and *ischemic*.



A clot blocks blood flow to an area of the brain



Bleeding occurs inside or around brain tissue



## Team Leadership

- Project Manager: *Allison Bagby*
- Content Manager: *Eduardo Aramayo*
- Webmaster: *Lydia Bengner*
- Vocabulary Manager: *Ryan Yarzak*
- Minutes Recorder: *Heather Selby*
- Poster Designer: *Heather Selby and Stefanie Rozborski*

## Research Methodology

- Overview of disease
- Physical effects
- Pharmacological/Non-pharmacological treatments
- Orthotic Treatment
- Fabrication of device
- Case study throughout each step
- Vocabulary/Notes sheet
- Overview Brochure

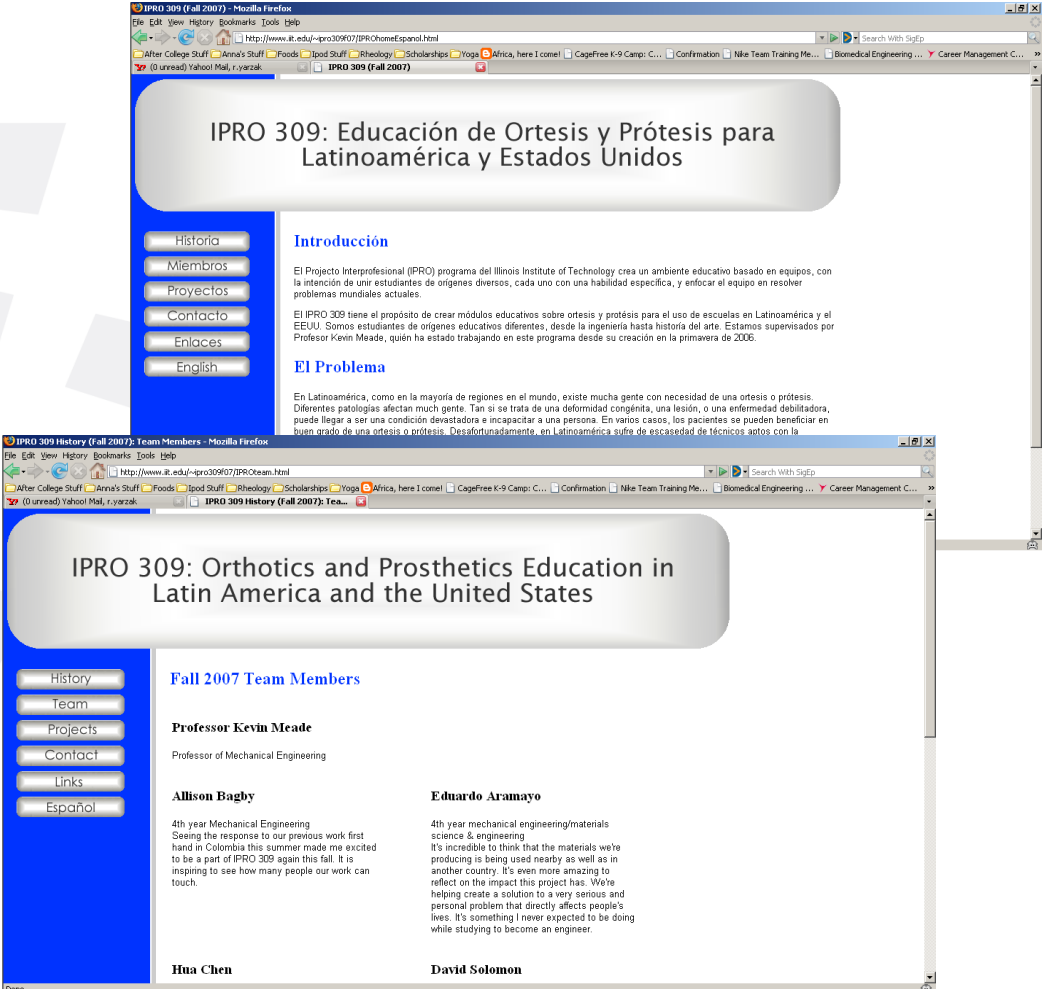


## Michael Brncick, M.Ed., CPO



# Obstacles

- Broad topic
- High school and first year college students
- Vocabulary
- Language Barrier
- Case studies
- Website



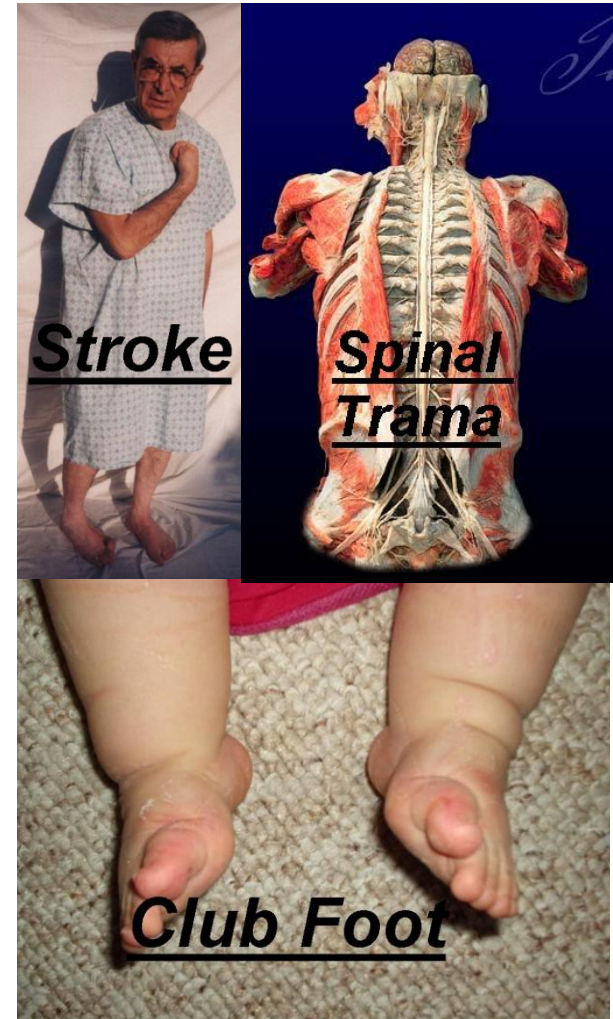
The image shows two screenshots of a web browser displaying the IPRO 309 website. The top screenshot shows the Spanish version of the site, titled "IPRO 309: Educación de Ortesis y Prótesis para Latinoamérica y Estados Unidos". It features a navigation menu with buttons for "Historia", "Miembros", "Proyectos", "Contacto", "Enlaces", and "English". The main content area includes an "Introducción" section and a "El Problema" section.

The bottom screenshot shows the English version of the site, titled "IPRO 309: Orthotics and Prosthetics Education in Latin America and the United States". It features a navigation menu with buttons for "History", "Team", "Projects", "Contact", "Links", and "Español". The main content area includes a "Fall 2007 Team Members" section with profiles for Professor Kevin Meade, Allison Bagby, Eduardo Aramayo, Hua Chen, and David Solomon.

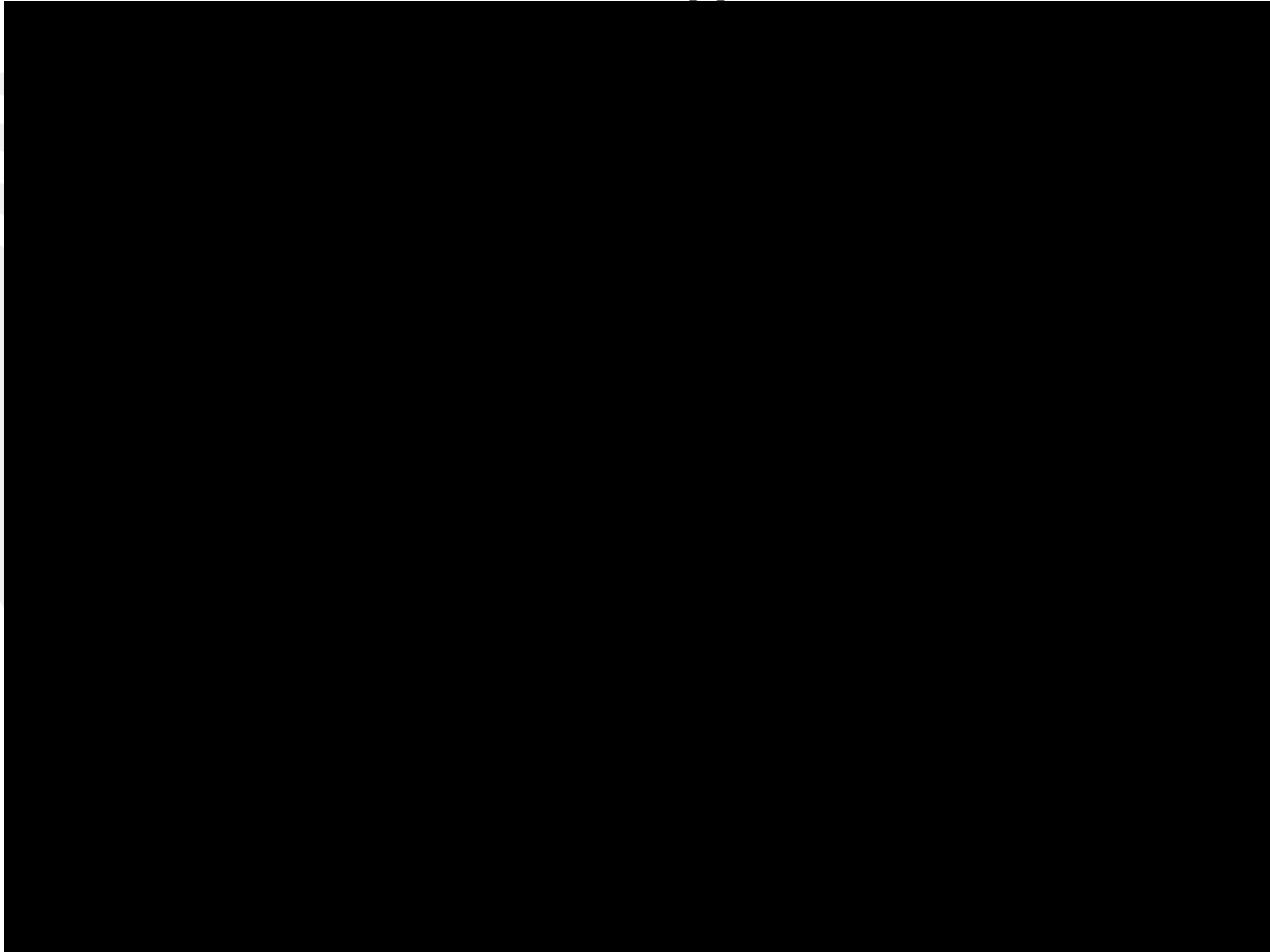
# Results



- Three educational modules:
  - Club foot
  - Spinal Trauma
  - Stroke
- Guest speaker:  
Bryan Malas, MHPE, CO, CPed
- Case studies presented by:  
Dr. Kevin Meade



## Laboratorio Gilete - Bogotá



## What's Next?

- Conference in Bogotá May 2008
- Open house at Joliet Junior College
- New Modules Next Semester
  - Pediatric
  - Adult
  - Geriatric

## Acknowledgements

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- Illinois Institute of Technology; Chicago, IL
- Joliet Junior College
- La Escuela Comombiana de Rehabilitación; Bogotá, Colombia
- Laboratorio Gilete, Bogotá; Colombia;
- Michael Brncick, M.Ed., CPO
- Northwestern University Prosthetics and Orthotics Center (NUPOC); Chicago, IL
- Universidad de los Andes; Bogotá Colombia