

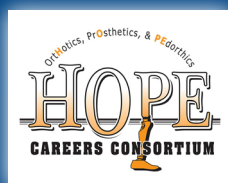
Orthotic & Prosthetic Technician Continuing Education Course



OCTOBER 16 and 17, 2015

SPONSORED BY:

THE NORTHWEST CHAPTER AMERICAN ACADEMY OF ORTHOTISTS AND PROSTHETISTS



**Community Colleges of Spokane
Spokane Falls Community College**

O&P CONTINUING EDUCATION FOR TECHNICIANS

October 16 and October 17, 2015

Friday, October 16

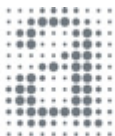
7:30 am		Welcome
7:35 am	Curt Bertram	Future of the O&P Workforce
8:30 am	Alex Brett	Fabrication of a Custom 40 Durometer Urethane Partial Foot
9:30 am	Steve Hill	Fabrication of Plastic and Leather AFOs
10:15 am	Break	Refreshments
10:30 am – Noon	Fred Lanier	The Benefits of SpectraCarb
10:30 am – Noon	Jerry Gohman	Fundamentals of Prosthetic Fabrication
Noon		Lunch
12:30 – 1:30 pm	Keim Bill/Mike Ruch	Introduction to Hydrographic Cosmetic Finishes
1:30 pm	Steve Hill	Fabrication of the New Becker Modular Systems
2:30 pm	David Firth	3D Printing in O&P
3:15 pm	Break	Refreshments
3:30 – 5:30 pm	Chad Eberhart	Chopart Fabrication ... Laminations and Variations

BreakOuts

4:30 – 5:00 pm	Mike Vanek	Modified Fabrication Techniques for Adult and Pediatric Orthosis
5:00 – 5:30 pm	Robert Eldridge	How Physics Effects your Layups and Trim Lines
5:30 pm		Adjourn

Saturday, October 17

8:00 – 9:30 am	Matt Perkins	Volcanic Rock Laminations v Carbon Fiber
9:30 – 10:00 am	Steve Hill	Powder Coating with Thermoclad
10:00 – 10:30 am	Break	Refreshments
10:30 – 11:30 am	Ambrose Cavegn	Crash Course on Inventing and Intellectual Property
11:30 am – 12:30 pm	Jackie Valdez	Customization of Dynamic Carbon Graphite AFOs
12:30 – 1:30 pm	Brad O'Connell	Making Revolimb Work!
1:30 pm	Clay Wright	Wrap-up and Course Evaluation
2:00 pm		Adjourn



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COURSE DESCRIPTIONS

FRIDAY, OCTOBER 16

Curt Bertram • Future of the O&P Workforce

The current changes in the O&P profession are happening at an incredible speed and the demand for quality care is increasing. NCOPE commissioned a workforce study (Projecting the Adequacy of Workforce Supply to Meet Patient Demand) looking to 2025 and found a strong need for not only clinicians, but technicians as well. There is and will continue to be a need for talented technicians to fabricate custom orthotics and prosthetics. Along with the workforce need, we see an increasing utilization of advanced technologies in which the technicians play a critical role. Whether it is in a central fabrication laboratory or in a small "mom and pop," the need for a quality technician is integral in the clinic of the future. With this rapid advancement in technology and the ever shifting sands of compliance/regulation, the O&P technician will be critical in the delivery of custom O&P as the modern day clinician will be spending less time on fabrication and more time on evidence-based practice and outcome measures. Despite the "noise," the future looks bright for the O&P technician and the profession.

Alexander Brett • Fabrication of a Custom 40 Durometer Urethane Partial Foot

This presentation will describe the process, walking through the steps necessary to fabricate a Custom 40 Durometer Urethane Partial Foot. The topics covered include safety, design, material selection, and fabrication. Also included are tips and tricks on the art of mold making drawn from challenging fabrication experiences.

Steve Hill • Fabrication of Plastic and Leather AFOs

This didactic presentation will demonstrate the fabrication techniques of the plastic in leather AFOs. These popular orthoses are known by a wide variety of names, but are essentially leather ankle gauntlets with internal plastic stiffeners. This talk will demonstrate the super-fast way to fabricate these devices without the use of traditional molding leather. By the end of the lecture, the participant will understand its general application and complete fabrication protocol of this popular device.

Fred Lanier • The Benefits of SpectraCarb

SpectraCarb is a unique tubular STOCKINETTE developed specifically for the O&P industry by Comfort Products using a combination of spectra and carbon fibers. Pound-for-pound, it is ten times stronger than steel, and more durable than polyester. This program will be a hands-on presentation of utilizing SpectraCarb in fabricating prosthetics and orthotics.

Jerry Gohman • Fundamentals of Prosthetic Fabrication

This workshop will cover new and basic materials for the O&P lab including: Pedilen foams, Orthocryl resins, pigments, composites, antibacterial, thermoplastic and foam cover application. A proven technique for prosthetic socket duplication is also provided. Discussion will include alignment transfers that have difficult bulbous distal end shapes such as symes or congenital limb deficiencies. The lecture/demonstration format will include some hands-on experience. Detailed handouts summarizing the procedure will be provided.

Keim Bill and Michael Ruch • Introduction to Hydrographic Cosmetic Finishes

Information about hydrographic water transfer printing and how it works is provided in this presentation. A description of the materials and equipment needed and the specific applications used in prosthetics and orthotics are also provided.

Steve Hill • Fabrication of the New Becker Modular Systems

This course will demonstrate the properties of and fabrication procedures for the many new orthotic knee joints from Becker Orthopedic. This new line of orthotic components is modular in design which allows for a much wider versatility and application. Also included in this talk will be an overview of the 1018, 1017-A38, modular 2825 double action ankle joint, FullStride stance control, anterior loop trigger release and several new Tamarack products. The highlight of this talk will be a discussion of the most recent release from Becker Orthopedic, a triple action ankle joint!

David Firth • 3D Printing in O&P

Although over 30 years old, 3D printing has seemingly become an overnight sensation with over 200 manufacturers now making small printers around the world. With media reports often blurring the line between fact and fiction, it's no surprise that expectations often exceed reality. None the less, clinical application of printed sockets is not a fantasy.

Chad Eberhart • Chopart Fabrication ... Laminations and Variations

This 2-hour presentation focuses on the fabrication procedure of a device for Chopart amputations. All phases of the process from modification of the positive model to finished device will be discussed and questions answered. Variations and finishing options are also included in this lecture.

Michael Vanek • Modified Fabrication Techniques for Adult and Pediatric Orthosis

This presentation will focus on fabrication of the posterior leaf spring AFO (PLS) using ProComp design for durability and function with mention of pro-comp strut design and placement for ground reaction AFO and spiral design orthosis. Also discussed is an alternative to standard crepe heel posts, describing methods to heat form a heel post onto an orthosis, and adding a heel post to a laminated orthosis for a durable and time-saving technique. Fabrication of an internal AFO pull-strap to achieve better control of mid-foot collapse with attachment of the strap. Videos of the fabrication are included.

Robert Eldridge • How Physics Effects your Layouts and Trim Lines

When laying up your project for lamination or selecting plastics and trim lines for your projects, it is important to take into consideration the dynamics at work from the physical forces being applied.

SATURDAY, OCTOBER 17

Matt Perkins • Volcanic Rock Laminations v Carbon Fiber

This workshop will cover the use of basalt in the laminations of orthotics and prosthetics, highlighting the reduced itch and risk of use compared to carbon fiber. Techniques for traditional sockets, as well as the use of more flexible sockets, will be included. The workshop will also include use in laminated AFOs, including articulated AFOs and the Boise Bi-Valve AFO which is designed to help with ankle arthritis while allowing the patient to wear regular shoes.

Steve Hill • Powder Coating with ThermoClad

The ThermoClad System from Becker Orthopedic uses a polymer-based coating to provide metal parts with a tough, protective barrier against the elements. Because it is available in many colors it also increases patient satisfaction and overall compliance. By using both didactic and hands-on formats of learning, this presentation will provide the attendee with the knowledge to utilize this technology in their own labs.

Ambrose Cavegn • Crash Course on Inventing and Intellectual Property

This presentation focuses on the many challenging aspects involved in getting a patent: from deciding if there is a need for the device, verifying that the idea is really your own, and preventing the idea and product from being stolen. After all of that comes together, phase two involves building it, testing it, tearing it apart, and re-building it again! Phase three is the legal work: finding an attorney, preparing the paperwork and pictures, drawings, and artwork, submitting the final package, and awaiting a determination of patent approval/denial. Ideas, suggestions, and past experiences are provided to make the patent process a complete snap!

Jackie Valdez • Customization of Dynamic Carbon Graphite AFOs

During this presentation, you will learn how to customize and fabricate custom carbon fiber AFOs to accommodate adult neurological disorders as well as partial foot amputations, using the Trulife Carbon Graphite RAW and the new ProComp composite material. This is an interactive presentation featuring step-by-step instructions on how to create the ultimate product for your patient.

Brad O'Connell • Making Revolimb Work!

This presentation is a basic overview of the Revolimb system and how it can be applied to prosthetics and orthotics. A more detailed look at how the components work, fit together, and design ideas are provided along with information on how to choose a dial type, proper housing layout, cutting the windows, and string the system.



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COURSE PRESENTERS

Curt Bertram, CPO, FAAOP

Curt, the immediate past president of the American Board for Certification, is a national orthotic specialist working for the Hanger Clinics. Curt is the Director for the National Residency Program for the Hanger Clinics in which he manages 30 primary training centers with over 150 residents and directs the annual recruiting of MSOP graduate students from 13 accredited universities. Prior to accepting these duties, Curt was the Area Practice Manager at Hanger P&O for six years, managing ten clinics in Wisconsin and served as a pediatric orthotic specialist. He received his education at Northwestern University and Northern Arizona University.

Keim Bill, CTPO

Keim has been active in the orthotic and prosthetic industry for over 30 years spending most of his work time in the Pacific Northwest and in northern Idaho. Keim is the lab manager at the Kootenai Prosthetics & Orthotics offices in Post Falls, Idaho and serves on the O&P Advisory Board of SFCC. He considers himself "lucky enough to be working with SFCC on the educational program for O&P students."

Alexander Brett, RTPO

Alex is a registered prosthetic and orthotic technician at Myrdal Orthopedic Technologies Inc (MOT Inc) located in Winnipeg, Manitoba, Canada. His 11 years of experience have focused on cutting-edge materials and techniques, and his passions include fabricating prosthetics (especially prostheses incorporating silicone and urethane) as well as specialty mold making. During his time with MOT Inc, Alex has helped develop and refine techniques that include Custom Silicone Liners, Distal End Pads, Various Styles of Urethane Partial Feet, Wrist and Ankle Orthoses, and more.

Ambrose Cavegn, CTPO, CPA

Ambrose graduated from SFCC in 2009 with an AAS degree in O&P Technology and completed his prosthetics clinical at Texas Scottish Rite Hospital for Children and his orthotic clinical at the Shriners Hospitals for Children in Tampa. Ambrose has been working as the lead technician for Medical Center O&P in the greater DC metro area and later was promoted to lab manager. He has formed his own fabrication company providing subcontracted technician work at several different sites. Ambrose has also developed and created a prototype wet saw for cutting carbon fiber and has received a provisional patent for his design.

Chad Eberhart, CPOA, CTPO

Chad is a certified O&P assistant with dual certification as a technician in Prosthetics and Orthotics. Chad has been an O&P technician since 1999. He owns and operates Independent Tech Service, LLC (ITS) which is a Fabrication Center in Sumner, Washington that opened in 2002. Chad serves on the board of directors for the Western and Mid-Western Orthotics and Prosthetics Association.

Robert Eldridge, CTPO

Rob, who is an alumnus of the O&P Programs at SFCC, is the President and owner of Pillar Orthopedic Design LLC. Among family members, Rob is the second generation working in the field of orthotics and prosthetics. He began working in O&P 22 years ago and worked for 15 years at the Shriners Hospitals for Children in Salt Lake City and Portland. For the past five years, Rob has worked at the Hanger Clinic in Salmon Creek, Washington.

David Firth, BS

As the designer of the Seattle LightFoot, and the Provel Digitizer, Carver and Thermoformer, David has been involved in the evolution of prosthetic components and O & P automation for over 30 years. David's multidisciplinary design career has also included housewares, motorcycle fairings, commercial juice extractors, rigging equipment, chocolate production automation, automated industrial machinery, biological warfare detection devices, commercial aircraft test equipment, silicon wafer handling, and aerospace composite processing. In addition, he has seven patents.

Jerry Gohman, CTP

Jerry has over 35 years of experience in the technical aspect of prosthetics. For over 15 years, Jerry served as the manager for Ottobock's Central Fabrication and Service Departments, but for the past 10 years, he has worked as the Technical Support Manager within the Professional and Clinical Services Department at Ottobock. In this role, Jerry provides assistance and trouble-shooting for North American Practitioners and Technicians. Previously, Jerry was a member of the Century College prosthetic and orthotic advisory committee.

Steve Hill, BOCO

Steve was employed by a major central fab for 25 years where he received much of his training in orthotic fabrication. Starting out as a technician, he worked his way up to a managerial position and then became certified as an orthotist by BOC in 1996 and by ABC in 2001. For the past ten years, Steve has owned the orthotic consulting firm, Delphi Ortho, has written dozens of articles for every major O&P publication, and has been lecturing for over twenty years. Steve has served on the Item Writing Committee at BOC and currently serves as Vice President and a founding member of the OPTA (Orthotic Prosthetic Technological Association). He is also on the O&P News Advisory Board, O&P Almanac's Advisory Board, serves as a Facility Accreditation Surveyor and acts as a consultant to both manufacturers and patient care facilities alike.

Fred Lanier, Sales Manager

Fred has 15 years of experience in selling medical textiles to the O&P Community. His vast knowledge in medical textiles helps the practitioner in supplying the best possible interface to ensure the patient's comfort. Because of his hands-on experience with textiles used for orthotic and prosthetic manufacturing, he can assist in fabrication and help the technician in getting a positive outcome.

Brad O'Connell, Production Manager

For 10 years, Brad has worked for Cornerstone P&O, starting as an orthotics technician and then transitioning to the P&O lead tech. Two years ago, he became the production manager for the Cornerstone fabrication facility. Brad has extensive experience in orthotics and prosthetics including advanced systems like the Revolimb, HiFi socket, Biosculptor and OWW Tracer cad systems, dynamic bracing, and the EMS socket system. During the past year, Brad has provided lectures and fabrication demos for the Master's program at the University of Washington.

Matt Perkins, CEO & President

Matt, a co-founder of Coyote Design, is also president and CEO of Coyote Design and its sister patient care company Rehab Systems. Formerly a Paralympic Alpine Ski Racer, and 5-time world triathlon champion, Matt has directed marketing and product development for Coyote Design. Since 2013, Matt has been overseeing both patient care offices and manufacturing operations. Coyote is also in the process of creating a central fabrication service that will be up and running in the fall of 2015, in conjunction with new online educational offerings that will feature more in-depth hands-on options.

Michael Rush, CTPO

Mike graduated from SFCC in 2013 with an AAS degree in prosthetic & orthotic technology. In 2012 at the AOPA National Assembly, Mike achieved second place in the fabrication contest for student category BK swim prostheses. And in 2013, Mike became an ABC certified technician in prosthetics and orthotics who works part-time at Kootenai Prosthetic Orthotic Services in Post Falls.

Jackie Valdez, CO, FAAOP

Jackie has over twenty years of experience in the O&P profession and is certified by the ABC in Orthotics and as a National ABC Orthotic Examiner. She is a Pediatric Specialist specializing in Cranial Remolding Orthoses, Scoliosis and Pectus Carinatum bracing. For 10 years, Jackie was the practice manager at a Hanger Clinic where she was highly trained in Insignia and Walkaide. After attending the O&P Program at Century College, she trained at Gillette Children's Hospital in St. Paul. Jackie is certified by the NATA as a Certified Athletic Trainer and is a member of the Gait Society.

Michael Vanek, CTPO, COA

Mike was a student in the O&P Programs at SFCC in 1995-1996. As a prosthetic and orthotic technician, Mike has worked at the Shriners Hospitals for Children in Salt Lake City and Portland from 1996 to 2004. After that, he began working at the Oregon Orthotic Services company in Portland for two years. Since 2006, Mike has served as the Lab Manager at A Step Forward in Portland, Oregon. Mike received his CTPO in 2003 and his COA credentials in 2011.



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