Orthotic & Prosthetic Technician Continuing Education Course

SFCC

orthotic
prosthetic
technology

OCTOBER 13 and 14, 2017

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

This program has been approved for **15 CE credits** by the American Board for Certification in Orthotics, Prosthetics & Pedorthics (ABC) and for **16.5 CE credits** by the Board of Certification (BOC), and for **12 MCE** by Orthotics Prosthetics Canada (OPC).

FRIDAY, OCTOBER 13	SPEAKER	COURSE TITLE
7:30 – 8:30 am	Dan Blocka	International Trends for P and O Technicians
8:30 – 9:30 am	Brad Davis & Russ Bartlett	Creating Lightweight Laminations and Smooth Finishes
9:30 – 9:45 am	**BREAK**	Refreshments
9:45 – 10:45 am	Scott Wimberely	Fabrication Tricks and Tips
10:45 – 11:45 am	Jeff Collins	O and P Integration into the Veterinary Community
11:45 – 12:15 pm	**BREAK**	LUNCH
12:15 – 1:15 pm	Jeff Honma	Material Selection for Prosthetic Socket Fabrication
1:15 – 2:15 pm	Steve Hill	Future Tech!
2:15 – 3:15 pm	Chad Eberhart & Pam Hale	Fabrication of BOA System Technologies
3:15 – 3:30 pm	**BREAK**	Refreshments
3:30 – 4:30 pm	Ambrose Cavegn	Laminating with Foam
4:30 – 5:30 pm	Curt Bertram	Beyond Your Technical Skills
5:30 – 7:00 pm	Reception	Attendees, Vendors, Staff
SATURDAY, OCTOBER 14		
7:30 – 8:30 am	Phillip Harrison	Taking Polypropylene to a New Level of Performance
8:30 – 9:30 am	Warren Matthews	Fabrication of Silicone Bladder Prosthesis
9:30 – 10:30 am	Brad O'Connell	Dynamic Bracing
10:30 – 10:45 am	**BREAK**	Refreshments
10:45 – 11:45 am	William Buston	Prosthetic Weight Assisted Slide Puller/Pusher
11:45 – 12:45 pm	Cullen Hays	Creation of an Interscapulothoracic Level Prosthesis
12:45 – 1:45 pm	Mike Ruch & Keim Bill	Applicational Graphics for O and P
1:45 – 2:00 pm	Adjourn	Evaluation Forms/Thank You Bernard Hewey and Ruthie Dearing

FOR INFORMATION: Ruthie Dearing, Program Manager — ruthie.dearing@sfcc.spokane.edu OR (509) 533-3231

COURSE PRESENTATIONS

International Trends for Prosthetic and Orthotic Technicians

Dan Blocka

The presentation will initially discuss the history and current status of the Prosthetic and Orthotic Technician from a global perspective. It will also focus on international trends for the Prosthetic and Orthotic Technician in terms of education, professional roles, and competencies required and credentials awarded. Various scenarios around the future roles for Prosthetic and Orthotic Technicians will be presented and discussed.

Creating Lightweight Laminations and Smooth Finishes

Brad Davis and Russ Bartlett

This workshop covers the techniques and materials used to create lightweight yet tough laminations for use with smaller limbs or pediatrics. From set-up to final finish, this workshop highlights the benefits as well as the challenges of using safer lamination materials.

Fabrication Tricks and Tips

Scott Wimberely

This presentation covers a broad collection of tricks and tips when fabricating prosthetic and orthotic devices for improving outcomes and saving both time and money.

O&P Integration into the Veterinary Community

Jeff Collins

This presentation describes the work of Jeff Collins, RTP, owner of K-9 Orthotics & Prosthetics, Inc. located in Nova Scotia, Canada. Introducing O&P into the veterinary community posed a number of challenges in order to persuade vets to become involved with the practice. A general overview of the differences in anatomy and physiology between canines and humans will be described along with K-9 device styles and casting materials.

Material Selection for Prosthetic Socket Fabrication

Jeff Honma

Often overlooked are the material choices that will provide optimum outcomes in terms of strength and performance. This presentation will cover the importance of fiber orientation, correct lay-up techniques, when to utilize correct fibers, how resin selection can influence strength outcomes, differences in fiber grades, and an overview of composite materials.

Future Tech!

Steve Hill

This engaging presentation will discuss many of the emerging technologies happening at a lightning pace around the world. While this presentation focuses on the technologies specific to Orthotics and Prosthetics, an overview of many other new technologies will be discussed to find ways to employ them for the benefit of our practice and our patients. Topics such as stem cell research, 3D printing, amorphous metals, bioplastic, nanomaterials, body implants, and more will be discussed. The participants will see video demonstrations of new equipment showing how to use them productively in their own lab. Aside from having their minds blown, the participants will leave with an understanding of some practical applications of the newer and emerging technologies.

Fabrication of BOA System Technologies

Chad Eberhart and Pam Hale

This lab presentation will focus on panel configuration, design considerations and fabrication of BOA System Technologies showing how to integrate BOA components into superior functioning custom orthotic devices and prosthetic sockets.

Laminating with Foam

Ambrose Cavegn

This workshop and live demo will cover general lamination techniques over carved foam blanks, as well as specific tricks and tips to ensure a smooth and professional result. Setups will include standard PDI style shuttle lock, and standard suction sockets, in addition to other devices. This demonstration will offer cost-effective, time-saving techniques for laminating over foam.

Beyond Your Technical Skills

Curt Bertram

Your education will prepare you to become a competent O&P technician. These fabrication skills are the cornerstone upon which you will build your career. While this education is most important, there are additional skills and knowledge to be learned to not only enter the career field but to flourish in it. Job seeking and interview skills are the jumping-off point. You need to learn how to sell yourself to a potential employer and prepare a resume painting a picture of your talents and education. Once you have attained this new employment, you need to develop and practice your customer service skills. Who are your customers? Everyone you work with, work for, and yourself. Learn how to be present, engage your customers, deliver what you promise, and follow-up on your deliveries. Your career success goes beyond the lab, beyond your technical skills, and beyond your education. It is a continuous improvement process in self-development, continuing education, vision, and integrity. Learning how to bend an upright or laminate a socket is important, but you also need to look 'beyond your technical skills'.

Taking Polypropylene to a New Level of Performance

Phillip Harrison

ProComp is an advanced engineered prepreg composite that has been infused with discontinuous carbon fibers. The material yields a 25 percent increase in stiffness, zero carbon protrusion, superior fiber flow, and excellent finishing. The product also boasts an ancillary code for the addition to lower extremity orthosis thereby increasing reimbursement for practitioners. ProComp is available in a variety of thicknesses suitable for various orthotic and prosthetic applications. Although the material performs similarly to a traditional polypropylene, this presentation will describe the advancements of ProComp technology, clinical benefits of the material, and identify use cases for this advanced composite.

Fabrication of Silicone Bladder Prosthesis

Warren Matthews

This presentation shows the step by step fabrication of a silicone bladder suspended prosthesis. This presentation describes a Symes application, but this type of suspension can be used in other disarticulation levels such as wrist, knee disarticulations and PFFD's when a disarticulation of the foot has been performed. Some of the advantages of this type of prosthesis include ease of donning and comfortable fit, while some of the disadvantages are complex fabrication and poor adjustability. This type of prosthesis can be very effective even when used with gel liners. This fabrication procedure has been used in combination with myoelectric fittings.

Dynamic Bracing

Brad O'Connell

A simple yet thorough demonstration of how to modify, setup, and fabricate a dynamic device for orthotic and prosthetic patients. The presentation will demonstrate with discussion the important aspects of each stage of production that are vital to ensure a quality outcome for your clinic and patients.

Prosthetic Weight Assisted Slide Puller/Pusher

William Buston

Adapting a tool that is used in auto-body repair for prosthetic fabrication is the focus of this presentation. A slide puller uses weight and momentum to pull an object away from its fixed location. This presentation will describe the tool, its uses, its limitations, and demonstrate how to easily fabricate one for use in prosthetic fabrication.

Creation of an Interscapulothoracic Level Prosthesis

Cullen Hays

This presentation will discuss the aspects of balancing a patient's esthetic hopes and desires with the functional limitations of components, materials, and availability of fabrication techniques. Last year, Cullen was actively involved in the creation of an inter-scapular-thoracic-level prosthesis and will discuss this process and his work.

Applicational Graphics for O and P

Keim Bill and Mike Ruch

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 provided along with a lab demo.

COURSE PRESENTERS

Russell Bartlett, CPOA

Russ is the Manager at Coyote Design Central Fabrication. Russ started working for Coyote Design's sister company Rehab Systems in 1998 as a technician and assisted Coyote Design in product development. Russ became a full time Coyote Design employee in 2014.

Curt A. Bertram, CPO, FAAOP

Curt is a certified orthotist/prosthetist and a fellow of the American Academy of Orthotists and Prosthetists. He earned his undergraduate degree in Mechanical Engineering from Northern Arizona University and his post-graduate certificates in orthotics and prosthetics from Northwestern University and the University of Hartford respectively. Curt is a past president of the American Board for Certification in Orthotics, Prosthetics and Pedorthics and sits on several committees for exam development and testing. He is currently employed with Midwest Orthotic Services out of South Bend, IN as the Chief Operating Officer and has been working in the O&P profession for over 26 years.

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. Keim serves on the O&P Advisory Board of SFCC and considers himself "lucky enough to be working with SFCC on the educational program for O&P students."

Daniel Blocka, BSc, CO (c), FCBC

Dan Blocka has over 30 years of experience as a teacher and clinical practitioner. He is a Past President of ISPO after a term as President from 2007 to 2010. Currently he is the Assistant Chair of the ISPO Education Committee with a specific role around updating the Category 3 level (PO Technician). In his roles with ISPO, Dan has been involved in over thirty ISPO evaluations and examination processes at various Prosthetic and Orthotic educational training programs worldwide and is highly involved in the continued development of educational and professional standards and protocols for ISPO. Since 1986, he has been a Professor and Coordinator of the George Brown College Prosthetic and Orthotic Educational Programs in Toronto and currently teaches in a part-time capacity. Beginning in 1988, Dan has been the President and owner of Boundless Biomechanical Bracing Inc., a large clinical service provider in Orthotics in the Toronto area. Dan was also a lecturer in the School of Human Biology at the University of Guelph from 1985 to 2004. In March 2011, Dan was appointed to the Board of Directors of Cambodia Trust, which is a UK-based charity established in 1989 that works for equality for people with disabilities in the developing world. Until June 2016, Dan served as Vice-President of Orthotics Prosthetics Canada.

William Buston, RTPO (c)

William graduated from the George Brown Prosthetic/Orthotic Technician Program in 2003. He completed his prosthetic and orthotic internships for registration during his full-time employment after the program, and has worked full-time at Hager Orthopedic Clinics in Kelowna, BC, Canada since graduating. William enjoys the challenges of fabricating unique orthopedic devices and running the Prosthetic and Orthotic Lab at Hager.

Ambrose Cavegn, CTPO, CPA, BOCP

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. He received his BOCP in March 2016 and is a lead technician at the Hanger Central Fabrication facility for the Mid Atlantic in Laurel, Maryland. Ambrose has also developed and created a prototype wet saw for cutting carbon fiber and has received a provisional patent for his design.

Jeff Collins, RTP

Jeff is a 1999 graduate of the George Brown College and became a RTP in 2001. He has delivered presentations at several veterinary colleges, including Atlantic, Ontario, North Carolina, and Western College. Jeff has collaborated presentations and wet labs with Veterinary Orthopaedic Sport Medicine Group at the North American Veterinary Conference in Florida, Canine Sports Medicine, Rehabilitation & Regenerative Medicine in Las Vegas, Edmonton Veterinary Orthopedic and Sport Rehabilitation Conference in Edmonton, Alberta, and the International Symposium on Veterinary Rehabilitation / Physical Therapy and Sport Medicine Conference in Alabama and Oregon. He has published K-9 O/P stifle orthosis research in the Veterinary Evidence Online journal 20 Jan 2016 and is currently collaborating on the O&P chapter in a veterinary rehabilitation text book.

Bradley Davis CTP,CPA

Bradley is the Assistant Manager at Coyote Design Central Fabrication. He has fifteen years of experience as an Orthotics and Prosthetics technician. He is also a congenital amputee. Bradley joined the Coyote Design team in July 2014.

Chad Eberhart, CPOA, CTPO

Chad is a certified O and 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.

Pamela K. Hale, CPO

Pam is the Director of Clinical Sales and Service for Click Medical, an industry leader in emerging Adjustable Socket Technology. She received a BS from Texas Woman's University in Exercise Physiology and Biomechanics, a BS from UT Southwestern in O&P and has over 25 years of diverse experience in the healthcare industry. As a clinical leader in O&P for 20 years, Pam is a resource willing to share her expertise. She is a regular speaker at national and local O&P meetings as well as Clinical Rehab settings presenting Gait Analysis, Orthotic Intervention and Biomechanics with the objective of maximizing clinical outcomes.

Phillip Harrison, CP

Phillip entered the O&P field in 1994 upon graduation from Northwestern University in Evanston, Illinois. Phillip has worked as a prosthetist, in clinical sales for an industry supplier, and most recently as a practice manager. Phillip joined Cascade Orthopedic Supply as the Clinical Services Manager in 2016.

Cullen Hays, Technical Coordinator

Cullen is a technical coordinator and fabricator with Advanced Arm Dynamics in Portland Oregon. He has been working in the field of O&P for 19 years and specializing in upper extremity for the last 11 years. In his time with Advanced Arm Dynamics, Cullen has been able to focus on care through design and fabrication of custom components and activity specific devices, utilizing CAD design and additive manufacturing.

Steve Hill, BOCO, CO

Steve Hill 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.

Jeff Honma, CPO

Jeff is the Technical Director for ST&G USA, and has been involved in the field for over 31 years, starting out as a technician, and graduating from the CSUDH P&O program in 1988. Jeff performed his residency at Shriners Hospitals for Children in Los Angeles, and was the prosthetist involved with the Flex-Foot study and its influence with pediatric patients. His practice experiences include private practice, establishment of a private practice partnership, work with the clinical services team at Otto Bock supporting C-Leg MPK programs and C-Leg clinician instruction, management of the P&O Department at Shriners Hospitals, and serving as area clinic manager for Hanger Clinic in the Los Angeles area.

Warren Matthews, RTPO

Warren has worked within the Orthotic and Prosthetic Industry for 30 years. Recognized in both orthotics and prosthetics, he has been very active in educational and national level events for more than a decade. Warren currently works for Orthotics Prosthetics Canada (OPC) where he serves as the Prosthetic Technical Representative and enjoys contributing his time to these professions.

Brad O'Connell, Production Manager

Brad has 12 years' experience in O&P manufacturing working for Cornerstone P&O in Everett, Washington. Starting as an O&P technician, he transitioned to department technical lead and three years ago accepted the position of production manager. Brad has developed a comprehensive knowledge base with standard O&P devices including many advanced systems, such as Click Medical BOA volume control devices, Monolithic and PDE dynamic bracing, EMS and HIFI socket technologies. With a machinist background, he is well versed in CAD systems, including BioSculptor, OWW, and Provel. Brad was part of the development team that created the prototype clinical trials of Fabtech System's PDE dynamic modular composite spring systems. Brad is active in providing technical and fabrication training presentations to the University of Washington clinical programs.

Michael Ruch, 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 Thompson's Custom Orthotics and Prosthetics in Spokane.

Scott Wimberley, CTPO CPA

Scott became involved with the P&O industry and an adaptive life when his leg was amputated in 1970. Always leading an active lifestyle, he developed passions for scuba, rock climbing, skiing, biking, and kayaking. While working for Yosemite Search and Rescue In 1996, Scott entered the field as a patient model /athlete working with Hosmer Dorrance in San Jose, California. With a history of building adaptive devices for sports and an education in tool-making, the experience quickly developed into a full-time job. While with Hosmer, Scott trained as an upper extremity technician and worked with several leaders in the industry to develop and field test new products. In an effort to work more directly with patients, Scott went on to work at Stanford University in Palo Alto, California and eventually relocated to Western Washington. There with his two partners he helped start Fabtech Systems, serving as COO and Lean Implementation Officer, creating and refining new products and processes.