



ABC Orthotic Fitter

Pre-Certification Course Approval Standards



ABC ORTHOTIC FITTER PRE-CERTIFICATION COURSE APPROVAL STANDARDS

ABC has established standards for the delivery and content of Orthotic Fitter Pre-Certification Courses in order to provide guidance to program instructors of both online and classroom education courses. The standards ensure that the didactic and lab portions of the course are representative of current Orthotic Fitter practice and that the provision of orthotic devices are appropriate and safe for the patient. The mechanisms used to formulate the standards include surveys, survey analysis, focus groups, subject-matter expert committees and psychometric consultants.

All ABC approved orthotic fitter pre-certification courses are approved for a one year term. The annual fee for approved courses is \$100. Course providers must submit an annual Pre-Certification Course Approval Review form. The course review form may be submitted up to four times. A complete application for Pre-Certification Course Approval must be submitted every five years.

COURSE REQUIREMENTS

- The course must be a minimum of 32 hours, with a minimum of 16 hours each of didactic and in-person fitting lab.
- The instructor of both the didactic and lab instruction must be either a certified or licensed orthotist or certified or licensed orthotic fitter.

DIDACTIC CONTENT – minimum 16 hours

Students must have comprehensive exposure to all of the following content:

- Orthotic Fitter Knowledge and Skills (Appendix A)
- Required Pathologies (Appendix B)
- Required Devices (Appendix C)
- Professional Ethics (*ABC Code of Professional Responsibility*)

Upon completion of the course, students must have a basic knowledge of the content areas, have been assessed in their understanding of the required devices, demonstrate their knowledge and use of the required devices and demonstrate understanding of their appropriate use as they relate to patient care.

Course content outside of the ABC Orthotic Fitter Scope of Practice is not permitted and will not be counted towards the minimum time required for the course.

DELIVERY FORMAT

Didactic – course content may be delivered either in a classroom setting or through distance learning formats.

Distance learning course content can be delivered via video with narration, CD, DVD or narrated streaming video with a course syllabus or in a non-video format with narration (PowerPoint, Keynote.) The distance learning materials must be available for multiple formats (PC, Mac, Linux.)

The distance learning course provider must provide the capability for real time student interaction during normal business hours as well as alternate sources of student/instructor communication channels. These interactions could be carried out via instant messaging, email, conference call or video conferencing.

Didactic Assessment

Each student must be assessed to determine if they have obtained the required base set of competencies in the areas of orthotic fitter knowledge and skills, required pathologies, required devices, professional ethics and practice management during and at the completion of the course.

Student Assessment Guidelines

- Case studies are encouraged to reinforce treatment concepts.
- A quiz is required for every four hours of lecture time.
- A graded quiz is required after every eight hours of lecture time.
- Each module (upper extremity, spinal, lower extremity, footwear and gradient pressure garments) must have a separate student assessment.
- A final graded exam is required at the conclusion of the course. Open book tests are not allowed.
- A maximum of six months can elapse between completion of the didactic portion and the beginning of the lab portion of the course.

Lab – minimum 16 hours of in-person instruction with a minimum ratio of one instructor to 10 students.

Lab Assessment

Each student must be assessed to determine if they have obtained the necessary skill in the measurement, assembly, proper donning/doffing and the instruction in the proper use and care of each of the devices listed in Appendix C.

Appendix A

Required Knowledge and Skills

At the completion of the course, students should demonstrate the following knowledge and skills.

ANATOMY/PHYSIOLOGY

Knowledge of:

- General musculoskeletal anatomy, including upper limb, lower limb, spinal
- Bony landmarks relating to gross musculoskeletal anatomy of upper limb, lower limb and spine
- Gross neuroanatomy (for example; major peripheral nerves of the upper and lower extremity)
- The circulatory system as it relates to prefabricated orthotic care
- Anatomical planes, planes of motion and normal range of motion (ROM)
- Human development and aging, including pediatric, adult and geriatric, as they relate to prefabricated orthotic care
- Medical terminology as it relates to prefabricated orthotic care

PATHOLOGIES

Knowledge of:

- Pathologies* including cause and progression (for example; vascular neurologic, orthopedic)
- Tissue characteristics (for example; ulcers, pressure sores)
- Volumetric changes (for example; edema, weight gain/loss)

**See Appendix B for list of Required Pathologies*

BIOMECHANICS

Knowledge of:

- Normal human locomotion
- Gait deviations
- Biomechanics (for example, actions of lever arms, application of force systems)

PATIENT ASSESSMENT

Knowledge of:

- Assessment techniques, including gait observation, weight bearing status, skin/tissue assessment, manual muscle testing (MMT), pain evaluation and volumetric assessment
- Measurement tools and techniques (for example; tape measurers, ML gauges, goniometers, Brannock device)
- Psychology of the disabled
- Orthotic forms (for example; assessment, measurement)
- When to refer the patient to other healthcare providers (e.g., when patient needs are beyond fitters' scope of practice, when patient's health condition(s) require attention by other health care professionals)

Skill in:

- Interpreting referral documents (prescriptions and authorization for service)
- Interviewing patients
- Communicating with referral sources
- Taking patient history and performing physical assessment
- Patient assessment techniques (for example, measuring range of motion (ROM), determining muscle strength, body segment alignment)
- Interpretation of physical findings (for example; recognizing skin pressures, dermatological conditions, skeletal deformities)

TREATMENT PLAN

Knowledge of:

- Prefabricated orthotic design and fitting criteria of orthoses and compression garments (for example; anatomical/device relationships, device trimlines)
- Care and maintenance of prefabricated orthoses and compression garments
- Device warranties
- Available educational and resource materials (for example; fitting instructions, manufacturer's guidelines)

Skill in:

- Managing patients relative to their diagnosis and condition as it pertains to prefabricated orthoses
- Measuring for prefabricated orthoses and compression garments including upper limb, lower limb and spinal
- Fitting, modifying and adjusting prefabricated orthoses and compression garments
- Evaluating fit and function of prefabricated orthoses and compression garments
- Determining outcomes as they relate to the treatment goal (for example; reduction of pain, immobilization, improved gait, improved function)
- Documentation (for example; patient records, billing documentation, incident reports)

MATERIALS/EQUIPMENT/TOOLS

Knowledge of:

- Safety procedures and standards (for example; OSHA, SDS)
- Hand and power tools
- Product design, composition and materials

Skill in:

- Selection of and/or use of materials and components as it relates to prefabricated orthotic treatment
- Use of safety equipment (for example; personal protective equipment)
- Safe use of hand and power tools (for example; bending irons, heat gun, drill, grinder)

FOLLOW-UP PLAN

Knowledge of:

- When to refer the patient to other healthcare providers
- When to modify the device based on reassessment of fit and function

Skill in:

- Restoring the optimal fit and function of prefabricated orthoses and compression garments
- Maintenance and repair of prefabricated orthoses and compression garments
- Solving patient's problems related to Activities of Daily Living (ADLs) (for example; dressing, driving)

PRACTICE MANAGEMENT

Knowledge of:

- Referral documents
- Appropriate documentation procedures
- Policies and procedures regarding privileged information (for example, HIPAA)
- Roles and responsibilities associated with other healthcare professions
- Reimbursement protocols (for example; DMERC, HCFA)
- Universal precautions including sterile techniques and infection control
- *ABC Scope of Practice* of the orthotic fitter
- *ABC Scope of Practice* of other orthotic credentials
- Federal and state rules, regulations and guidelines (for example; FDA, ADA, licensure)

APPENDIX B

Required Pathologies

Upon completion of the course, students must have a basic knowledge of origin, cause and treatment(s) for the following pathologies and know the appropriate devices associated with the orthotic management of the pathology.

Cervical Spine

- Whiplash
- Stenosis
- Degenerative disc disease

Upper Extremity

- Clavicle fracture
- Shoulder subluxation
- Lateral and medial epicondylitis
- Tendonitis
- Carpal tunnel syndrome
- De Quervain's Syndrome
- Sprain/strain

Thoracic and Lumbar Spine

- Osteoporosis
- Degenerative joint disease
- Stenosis
- Low back pain
- Herniated disc
- Laminectomy syndrome
- Anterior compression fracture
- Spondylolysis
- Spondylolisthesis
- Geriatric kyphosis

Lower Extremity

- General
- Diabetes mellitus
- Venous insufficiency
- Deep vein thrombosis
- Lymphedema

Knee

- Chondromalacia (Patellofemoral syndrome)
- Patellar subluxation disorder
- Osteoarthritis
- Osgood Schlatter's disease
- Anterior cruciate insufficiency
- Posterior cruciate insufficiency
- Medial collateral insufficiency
- Lateral collateral insufficiency
- Meniscus tear
- Sprain/strain

Ankle/Foot

- Sprain/strain
- Bursitis
- Tendonitis
- Plantar fasciitis
- Heel Spur
- Ulcers
- Posterior tibialis tendon dysfunction
- Peripheral neuropathy
- Achilles tendon rupture
- Midfoot/metatarsal fractures

APPENDIX C

Required Device List and Recommended Lab Times

The lab times should focus on the appropriate selection of orthoses and performance of competencies (measurement techniques, fitting parameters and techniques, adjustments and/or modifications to orthoses, fit, etc.).

DEVICE	LAB TIME
Cervical Spine	1 hour
<ul style="list-style-type: none">■ Soft cervical collar■ Semi-rigid collar	
Upper Extremity	1 hour
<ul style="list-style-type: none">■ Figure 8 splint■ Shoulder immobilizer elastic■ Tennis elbow strap■ Elbow sleeve■ Wrist splint■ Wrist splint with thumb	
Spinal	4 hours
<ul style="list-style-type: none">■ Thoracolumbar corset■ Anterior frame hyperextension TLSO■ Lumbosacral corset■ Lumbosacral corset with rigid frame/panel■ Semi-rigid LSO■ Semi-rigid TLSO	
Lower Extremity	4 hours
<ul style="list-style-type: none">■ Knee■ Hinged knee orthosis■ Patellar tendon orthosis■ Elastic knee sleeve■ Knee immobilizer■ Post-op knee orthosis■ Prefabricated functional knee orthosis■ Prefabricated Unloader knee orthosis	

DEVICE	LAB TIME
Ankle/Foot	4 hours
<ul style="list-style-type: none"> ■ Multiligamentus ankle support ■ AFO plastic or other material with ankle joints, prefabricated ■ Ankle control orthosis, stirrup style ■ Pneumatic walker ■ Plantar fasciitis night splint ■ Pressure relief (heel) AFO ■ AFO, plastic or other material, PLS, prefabricated ■ Post-op shoe ■ Un-loader shoe 	
Shoes	
<ul style="list-style-type: none"> ■ Off-the-shelf depth-inlay shoe 	
Gradient Pressure Garments	2 hours
<ul style="list-style-type: none"> ■ Below Knee 20-30 mmHg compression stockings ■ Below Knee 30-40 mmHg compression stockings ■ Above Knee 20-30 mmHg compression stockings 	