

Recommendations to the OPC Advisory Panel: Results of the Examination Blueprint Task Force Meeting



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Introduction

As part of Orthotics Prosthetics Canada (OPC)'s ongoing initiative to ensure its certification and registration examination programs meet best practice standards for the credentialing industry, a two-day meeting was held in Toronto, ON in April 2016 to review the structure and content for the current examinations for Certified Orthotists and Prosthetists as well as Registered Orthotic and Prosthetic Technicians. An Examination Blueprint Task Force was charged with developing updated test specifications (i.e., the percentage of the exam that would focus on each major content domain) as well as identify the specific tasks, practice areas, and other key variables that should be tested using various testing modalities. Professional Examination Service (ProExam) facilitated the meeting.

Several assumptions developed by the Advisory Panel guided the conduct of the meeting.

- The results of the 2014 Practice Analysis Study related to recommendations for test specifications should serve as the starting point for discussions.
- The current exam structure for Certified Orthotists and Prosthetists, consisting of three components (written, oral, and practical), should be evaluated to determine if each component provides unique and cost-effective information related to the credentialing decision.
- A review of the strengths and weaknesses of the existing examination programs should inform the Task Force members' discussions.
- Trends in practice should be considered when developing the recommendations for the exam programs moving forward.
- Psychometric considerations (e.g., validity, reliability, defensibility, content sampling in examination construction) should be one major focus when developing recommendations.
- Practical consideration (e.g., cost-effectiveness, administrative efficiency) should be a second major focus when developing recommendations.

A Task Force was selected that was representative of key demographic and professional variables to conduct the work of the examination blueprint activity. Twelve individuals attended the meeting, including eight task force members (six clinicians and two technicians), the chair of the Advisory Panel, the OPC Director of Programs and Credentialing, and the two ProExam consultants who had conducted the 2014 Practice Analysis Study. Members of the Task Force are listed in [Appendix 1](#).

Conduct of the Examination Blueprint Meeting

To begin the meeting and in preparation for the Task Force's in-depth review of OPC's current examination programs, ProExam presented an overview of the use of best practice standards to evaluate credentialing programs, including a review of psychometric concepts and practical considerations. Task Force members were then provided summary results of the audit of OPC's credentialing programs and an overview of the testing programs of two US-based orthotic and prosthetic credentialing programs (the American Board for Certification in Orthotics, Prosthetics, and Pedorthics [ABC], and the Board of Certification/Accreditation [BOC]). The Task Force then discussed the strengths, weaknesses, and contributions of each of the three exam modalities (written, oral and practical) for the clinician examination program, and did the same for the two exam modalities (written and practical) for the technician examination program. Finally, an overview of the conduct and results of the 2014 practice analysis study was presented.

The majority of the meeting time was then devoted to a detailed review of the recommendations from the practice analysis study and the creation of a set of recommendations to guide the future development of the OPC credentialing examination programs for certified clinicians and registered technicians.

Task Force members worked both individually and in a large group, with group discussions facilitated by ProExam staff. Both ProExam and OPC staff kept contemporaneous notes of all discussions to support the recommendations made. Task Force members reviewed the domains and tasks in the delineation of practice and identified tasks that are testable in the written examination; tasks that are testable in the practical examination; tasks that testable in both modalities; and tasks that are not testable in the context of an examination. During their discussions, the eligibility requirements for both clinicians and technicians were provided to present the context of what constitutes the level of the professional at entry-to-practice as it relates to the credential (i.e., what are the characteristics of candidates with the requisite combination of education/training and experience). Once the testable content was identified, the Task Force then developed recommendations for the test specifications for the clinician and technician examination programs, and made recommendations for several small but meaningful edits to the delineation to more accurately differentiate the work of clinicians and technicians.

Results of the Examination Blueprint Task Force Meeting

Elimination of the Oral Component for the Clinician Exam

ProExam staff reviewed the content of the clinician examination modules in advance of the meeting, including having the ProExam Program Director who oversees the ABC Practitioner written examination evaluate the OPC oral and written examination components to assess whether those are the best formats for testing the content. Her conclusion was that the oral examination items could be tested more reliably and cost-effectively in the context of a written multiple-choice examination, and that any information gleaned by examiners related to the candidate's interpersonal and professional skills could be incorporated into the existing practical examination modules. Further, she noted that the content of the written modules for *Anatomy Physiology* and *Biomechanics* tested basic knowledge that would better be assessed in the context of applied clinical test items. These findings were presented to the Task Force as part of their consideration of the oral component of the clinical examination.

After thoughtful discussion, the Task Force recommended that the oral component be eliminated from the clinical examination program going forward. There rationales for this recommendation include the following:

- All of the content currently tested in the oral component can be tested more reliably and cost effectively via the practical and written components.
- There is no additional information about the competency of candidates provided by their performance on oral exams based on a review of candidate history in passing the other components.
- Professionalism and interpersonal skills could be added to the scoring rubrics for the practical examinations and assessed as part of the practical examination. For example, OPC could add a clinical case study about patient care to capture oral and professional skills.
- Given the existing mandated educational requirements, the professionalism of the candidates can be addressed and evaluated in the educational programs.

- Professionalism and interpersonal abilities are addressed in the Residency Program that is now a required element. (Note: The Task Force further suggested that it would be helpful if there were guidelines for what should be covered during the course of the residency experiences, since there has been an increased emphasis for uniform experience in the Residency program.)

Suggested Revisions to Task Statements in the 2014 Delineation of Practice

During its review of the testability of the tasks for both the clinician and technician examinations, the Task Force noted that several tasks were written at a level that did not accurately reflect the work of technicians. In addition, they noted that slight modifications would help clarify the meaning of other task statements. In order to be testable within the context of technicians' usual work roles and responsibilities, they suggested minor modifications to some task statements and clarifications to other statements related to both technicians and clinicians. These edited tasks include: 0109, 0206, 0304, 0314, 0321, 0502, and 05030. The suggested revisions are found in [Appendix 2](#), which presents an updated *Delineation of Practice*. Should the OPC Board of Directors accept these suggestions, this revised document could replace the delineation that came out of the 2014 study. ProExam endorses these suggested edits, since they do not materially change the meaning of the tasks that were validated during the conduct of the practice analysis study, but do make subtle but meaningful distinctions that better capture the experience of technicians and clinicians.

Testable Content for the Clinician and Technician Examinations

Task Force members identified the tasks that are testable for the clinician and technician written and practical examinations. See [Appendix 3](#) for the list of testable tasks. The tasks as listed in these test content outlines include the revisions to task statements as described in the preceding section.

Test Specifications (Percentage of Examination) for the Clinician and Technician Examinations

Task Force members carefully reviewed the recommendations for test specifications derived from the practice analysis study results. Test specifications refer to the percentage of the examination that should be focused on each major domain of practice or practice area. In developing their recommendations, the Task Force also took into consideration the number of testable tasks in each area. Based on their deliberations, they make the following recommendations for the test specifications for the orthotic and prosthetic clinician and technicians written exams; these tables also show the number of tasks that are testable in the written exam.

Test Specifications, Clinician Written Examination

Domain	# tasks in written exam	<u>Orthotics</u> % of written exam	<u>Prosthetics</u> % of written exam
1. Patient Evaluation	10	28%	17%
2. Treatment Planning	8	18%	15%
3. Treatment Implementation and Evaluation	20	33%	36%
4. Ongoing Treatment and Re-evaluation	15	18%	29%
5. Professional Practice	5	3%	3%
Total	58	100%	100%

For the Technician written examination, due to the small magnitude of the differences between the percentages in each domain for orthotic and prosthetic technicians, the Task Force recommended that the written examination test specifications be the same for both disciplines.

Test Specifications, Technician Written Examination

Domain	# tasks in written exam	Orthotics and Prosthetics % of exam
1. Patient Evaluation	3	5%
2. Treatment Planning	5	12%
3. Treatment Implementation and Evaluation	19	65%
4. Ongoing Treatment and Re-evaluation	13	15%
5. Professional Practice	5	3%
Total	45	100%

Please see [Appendix 4](#) for detailed Test Specifications for both the clinician and technician written and practical examinations. The practical examinations for the technicians reflect the recommendation that this examination be comprised of discrete OSCE stations assessing skill sets related to specific tasks rather than the existing model wherein candidate fabricate a single prosthetic or orthotic device.

Recommendations

ProExam makes the following recommendations for the Orthotic and Prosthetic Clinician and Technician Examination Programs.

- The Advisory Panel develop a comprehensive timeline for the revision of the written and practical examinations and the phase out of the oral examination.
- Each successive form of the written examination for Clinicians and Technicians be developed consisting of 150 multiple-choice scored items distributed across the domains of practice in accordance with the test specifications recommended by the Task Force; and further, that items in the written examination cover patient ages in roughly the same proportion as the patient age distributions from the practice analysis study.
- The practical examination for Clinicians be constructed with 10 to 12 OSCE stations (Objective Structured Clinical Exam) with a total time of no more than four hours across all stations; and further, that the stations be distributed across practice areas as recommended by the Task Force.

- That the practical examination for Technicians be constructed with 8 to 12 discrete OSCE stations with a total time of no more than four hours across all stations. Each station should be focused on a specific skill set related to one or more tasks. Further, the stations should be distributed across practice areas as recommended by the Task Force while ensuring that basic technician skills assessed in the current practical examination be integrated into the assessment.
- The oral component be eliminated from the Clinician examination program.
- Candidates should be required to pass the written examination before being eligible to challenge the practical examination.
- To improve administrative functions and tracking of candidates, that candidates should be assigned a unique identification number that remains with them throughout their entire testing experience, regardless of the attempt number or year tested; that is, that they do not get new identification numbers if they test or re-test in subsequent years.
- Whereas it is acknowledged that ideally, future practice analysis studies for Clinicians and Technicians be conducted separately to help distinguish the unique roles and knowledge bases for both professions, resource considerations suggest otherwise. Accordingly, future studies might be conducted with greater representation of technicians to facilitate subgroup activities throughout the meeting, resulting in similar, but not identical, delineations.
- That OPC develop a strategic plan for launching the new examinations to enable educational programs to review and adapt their curricula to cover any new content; and so that candidates have time to prepare adequately for the examinations.
- That OPC implement a communication strategy to introduce the new examination blueprint and formats in a timely manner. Such communications could include targeted emails to current OPC Certificatees and students in educational programs, articles in industry newsletters, meetings or webinars with representatives of educational programs, and presentations at professional conferences.

Appendix 1.

Members of the Examination Blueprint Task Force

Exam Blueprint Committee Task Force

Bill Buston, RTPO(c) (BC)
Helen Cochrane, CPO(c) (ON)
Yvonne Jeffreys, CO(c) (BC)
Catherine MacPhail, CP(c) (NS)
Chelsea Pattenden, CO(c) (MB)
Jennifer Russell-Smyth, CP(c) (ON)
Aaron Tucker, RTPO(c) (BC)
Catherine Vallee, CP(c) (QC)

Chair, Advisory Panel

Linda Laakso, CO(c) (ON)

Orthotics Prosthetics Canada

Mara Juneau, Programs and Credentialing Director

Professional Examination Service

Sandra Greenberg, PhD, VP of Research and Advisory Services
Carla Caro, MA, CS, Research Director

Appendix 2.
Suggested Revisions to the Delineation of Practice

Delineation of Practice

CERTIFIED PROSTHETISTS AND ORTHOTISTS
REGISTERED TECHNICIANS, PROSTHETICS AND ORTHOTICS

December 2014
Revised April 16, 2016



Prepared by



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DOMAINS

- 01 Patient¹ Evaluation:** Assess and evaluate patient by collecting patient-specific characteristics that will be used to determine appropriate prosthetic/orthotic treatment.
- 02 Treatment Planning:** Analyze, evaluate and integrate information gathered in Patient Evaluation. Using this information, develop prosthetic/orthotic treatment which may include the provision of a new prosthesis/orthosis, restoration/improvement of function in current prosthesis/orthosis, or referral to other health care professionals.
- 03 Treatment Implementation and Evaluation:** Using relevant clinical and technical skills, provide the patient with the prosthetic/orthotic treatment that may include the provision of a new prosthesis/orthosis, restoration/improvement of function in current prosthesis/orthosis, or referral to other health care professionals. Provide education to patient.
- 04 Ongoing Treatment and Re-evaluation:** Review prosthetic/orthotic treatment with patient subsequent to original care. Provide additional treatment to adjust, optimize or restore function of the prosthesis/orthosis, and re-educate patient as necessary. Refer to or consult with other health care professionals, as necessary.
- 05 Professional Practice:** Practice in accordance with professional standards and legal requirements; participate in personal and professional development through continuing education, training, research, and organizational affiliations; and provide training and education to others.

TASKS

01 Patient Evaluation

0101. Obtain consent to treatment
0102. Conduct patient interview by taking a comprehensive patient history, including but not limited to medical history (for example, fall history and risk, previous/current treatment and surgeries, allergies to materials, current medication), diagnosis and pathology, signs and symptoms, previous/current use of a prosthesis/orthosis, work history, activities, demographic characteristics, social history and supports (for example, family/friends, workplace), cognitive capacity
0103. Review professional reports such as patient charts, documented reports, test results, treatments, referrals and ongoing treatment plans of other health care professionals
0104. Conduct physical examination by performing a diagnosis-specific functional clinical and cognitive ability examination that includes manual muscle testing, evaluation of sensory function, range of motion, joint stability, and skin integrity

¹ Throughout this document, "Patient" = patient or client, or his or her representative (such as caregiver, family member, legal guardian, medically authorized person)

- 0105. Perform static evaluation (for example, postural assessment, weight/non-weight bearing) with and without prosthesis/orthosis
- 0106. Perform dynamic evaluation (for example, functional analysis, gait analysis) with and without prosthesis/orthosis
- 0107. Review patient goals and expectations
- 0108. Identify and administer outcome measurement tools (for example, pain scale, timed walk test, amputee mobility predictor [AMP]) to determine baseline
- 0109. Obtain information regarding patient from other health care professionals, including other clinicians and technicians
- 0110. Obtain information regarding funding sources
- 0111. Document patient evaluation

02 Treatment Planning

- 0201. Refer patient, if appropriate, to other health care professionals for intervention beyond prosthetic/orthotic scope of practice
- 0202. Research treatment options, including obtaining evidence from literature to achieve treatment goals
- 0203. Research manufacturer's specifications; and materials, components, design, and fabrication techniques
- 0204. Review treatment options with patient, including potential trial of components/prostheses/orthoses
- 0205. Collaborate with other health care professionals regarding treatment options
- 0206. For technicians: "Participate in the development of a treatment plan, including....."
Develop a treatment plan, including prosthetic/orthotic treatment, patient education, continuing and/or coordinated care, based on patient evaluation, needs, and treatment goals
- 0207. Communicate treatment plan to patient and ensure patient understands his or her responsibilities related to the treatment plan
- 0208. Ensure that patient and payors are informed of their financial responsibilities
- 0209. Contact funding agencies for pre-approval, and provide letters/documentation of medical necessity when required
- 0210. Document treatment plan

03 Treatment Implementation and Evaluation

- 0301. Provide patient with preparatory care for prosthetic/orthotic treatment (for example, compression garment, serial casting)
- 0302. Select appropriate materials/techniques in order to perform shape capture (cast, impression, measure, trace, digitize, scan) of residual limb/body segment and/or required measurements
- 0303. Prepare patient for procedure required to perform shape capture and/or required measurements
- 0304. Perform shape capture and/or required measurements (for example, anatomical shaping, conventional tracing, height measurement) of residual limb/body segment
- 0305. Perform shape capture and/or required measurements from existing prosthesis/orthosis
- 0306. Create positive anatomical model from shape capture (for example, pour/fill cast, carve positive)
- 0307. Modify (rectify) anatomical model or image
- 0308. Fabricate/assemble a prosthesis/orthosis to prepare for initial or diagnostic evaluation (fitting)
- 0309. Ensure that materials, design, and components are used as specified in the treatment plan
- 0310. Assess prosthesis/orthosis for structural integrity prior to patient diagnostic evaluation (fitting)
- 0311. Ensure that manufacturers' guidelines and all instructions for use have been followed prior to patient diagnostic evaluation (fitting) (for example, torque values, patient weight limits)
- 0312. Assess/align prosthesis/orthosis for accuracy in sagittal, transverse, and coronal planes (bench alignment)
- 0313. Perform static and dynamic alignment of prosthesis/orthosis with patient
- 0314. For technicians: "Participate in the assessment of fit, function, ..." Assess fit, function, control, and support of prosthesis/orthosis (for example, suspension, volume, pressure distribution, force control system)
- 0315. After assuring that prosthesis/orthosis is structurally sound, arrange for a trial period with prosthesis/orthosis if required
- 0316. Complete fabrication process after achieving optimal fit and function of prosthesis/orthosis (for example, convert test socket to definitive prosthesis/orthosis, cosmetic finishing, anatomical shaping)
- 0317. Re-assess prosthesis/orthosis for structural safety and integrity prior to patient use
- 0318. Administer outcome measurement tools and compare to baseline
- 0319. Educate patient about the use and maintenance of the prosthesis/orthosis (for example, wearing schedules, donning/doffing, other instructions)
- 0320. Refer patient to appropriate health care professionals for necessary ancillary care

- 0321. Educate and work with other health care professionals, including other clinicians and technicians, with regard to patient treatment
- 0322. Document treatment implementation
- 0323. Finalize financial aspects of treatment implementation

04 Ongoing Treatment and Re-evaluation

- 0401. Obtain feedback from patient to evaluate outcome (for example, wear schedule/tolerance, comfort, perceived benefits and/or detriments, ability to don and doff, proper usage and function, overall satisfaction)
- 0402. Re-assess patient and note any changes from previous evaluation(s)
- 0403. Assess prosthesis/orthosis with regard to strategic contact and physical presentation (for example, multiple force systems, total contact, trimlines, static/dynamic alignment) to determine need for changes relative to treatment goals
- 0404. Evaluate prosthesis/orthosis for structural changes (for example, component or material failure, joint mal-alignment, change in alignment)
- 0405. Re-administer outcome measurement tools to assess patient's achievement of treatment goals
- 0406. Formulate and discuss with the patient and payors the ongoing treatment plan to modify or replace prosthesis/orthosis
- 0407. Modify prosthesis/orthosis, component parts, and/or interface elements
- 0408. Repair, restore, and/or refurbish prosthesis/orthosis, component parts, and/or interface elements
- 0409. Replace prosthesis/orthosis, component parts, and/or interface elements
- 0410. Assess prosthesis/orthosis for structural safety and integrity following modification, repair, or replacement
- 0411. Evaluate modified prosthesis/orthosis, including static and dynamic evaluation
- 0412. Reassess patient knowledge on use of prosthesis/orthosis
- 0413. Communicate ongoing treatment and outcomes with all key stakeholders
- 0414. Ensure that patient and payors are informed of their financial responsibilities and options regarding modification, repair or replacement of prosthesis/orthosis
- 0415. Document treatment
- 0416. Document outcomes

05 Professional Practice

- 0501. Abide by CBCPO Character and Fitness Rules and Canons of Ethical Conduct
- 0502. Establish and/or adhere to procedures for patient care in compliance with provincial, territorial, and national legal requirements (for example, protection of personal health information, patient and workplace safety)
- 0503. Develop, implement and/or monitor policies and procedures with respect to human resources, physical environment, business and financial practices, and organizational management
- 0504. Participate in personal professional development (for example, participate in continuing education, attend/ present at conferences)
- 0505. Contribute to the profession (for example, volunteer in professional associations, committees, and regulatory agencies)
- 0506. Provide education and training for prosthetic and orthotic practitioners, other health care professionals, technicians, assistants, office staff, and funding agencies
- 0507. Participate in education of Residents and Interns
- 0508. Participate in education of students (both prosthetic and orthotic, as well as others)
- 0509. Participate in CBCPO Accredited prosthetic and/or orthotic technical or clinical education programs
- 0510. Conduct or participate in research, product development, clinical trials, and outcome studies
- 0511. Collaborate with health care professionals and other stakeholders
- 0512. Participate in the development, implementation, and monitoring of public policy regarding prosthetics/orthotics
- 0513. Serve as an expert resource (for example, lifetime cost of treatment, future cost of care, expert witness)
- 0514. Participate in/with consumer organizations and non-governmental organizations in order to promote competency and enhancement of prosthetic/orthotic profession

KNOWLEDGE AND SKILLS, CLINICIANS

Knowledge of:

1. Musculoskeletal anatomy, including upper limb, lower limb, spinal
2. Neuroanatomy and neurophysiology
3. Anatomical landmarks (surface anatomy)
4. Kinesiology, including upper limb, lower limb, spinal
5. Normal human locomotion
6. Gait training
7. Pathological gait
8. Tissue characteristics/management
9. Volumetric control
10. Planes of motion
11. Biomechanics
12. Pathologies (e.g., muscular, neurologic, skeletal, vascular)
13. Basic pharmacology
14. Medical terminology
15. Referral/prescription documents
16. Procedures to record data
17. Policies and procedures regarding privileged information
18. Roles and responsibilities associated with other healthcare professions
19. Reimbursement protocols
20. Material safety procedures and standards (e.g. MSDS)
21. Universal precautions, including sterile techniques and infection control, basic first aid/CPR procedures
22. Ethical standards regarding proper patient management, including CBCPO Code of Conduct
23. Scope of practice related to orthotic/prosthetic credentials
24. Boundaries of the scope of practice (i.e., when to refer a patient to other healthcare providers/caregivers)
25. Orthotic/prosthetic design
26. Orthotic/prosthetic fitting criteria
27. Clinical examination techniques, (e.g., range of motion (ROM), manual muscle tests, sensation, proprioception)
28. Impression-taking techniques, materials, devices, and equipment

29. Rectification/modification procedures as they relate to specific orthotic/prosthetic designs
30. Measurement tools and techniques
31. Orthotic/prosthetic forms (e.g., assessment, orthometry, measurement, evaluation, outcomes)
32. Materials science
33. Componentry
34. Alignment devices and techniques
35. Hand and power tools
36. Mechanics (e.g., levers and force systems)
37. Care and maintenance of orthoses/prostheses
38. Computer-aided design and manufacturing (CAD/CAM)
39. Item warranty and warranty limitations
40. Loss control (e.g., risk management, inventory control)
41. Research methodology, literature, evidence based practice protocols
42. Use of outcome measures
43. Human development and aging, ranging from pediatric to geriatric, as they relate to orthotic and prosthetic treatment
44. Psychology of the disabled
45. Patient educational materials
46. Federal and provincial rules, regulations, and guidelines regarding safety
47. CBCPO Facility Accreditation Standards
48. CBCPO Residency Standards

Skill in:

1. Interpreting referral documents, (e.g., prescriptions, orders)
2. Interpreting radiological images
3. Communicating with patient/family/caregiver
4. Communicating with referral sources and appropriately licensed healthcare providers
5. Performing physical examinations
6. Identifying gross surface anatomy
7. Interpretation of physical findings (e.g., recognizing skin pressures, dermatological conditions)
8. Analysis of normal and pathological gait/motion
9. Analysis of orthotic/prosthetic gait/motion
10. Managing patients relative to their diagnosis or condition

11. Impression-taking/measuring for orthoses/prostheses
12. Using mechanical measuring devices
13. Using electronic measuring devices
14. Using computer-based measuring devices
15. Patient delineation rectification and/or patient model modification (modification)
16. Orthotic/prosthetic fabrication
17. Using safety equipment
18. Using hand and power tools
19. Using materials and components
20. Using alignment devices
21. Aesthetic finishing
22. Evaluating fit and function of an orthosis/prosthesis
23. Adjusting and modifying orthoses/prostheses
24. Maintaining and repairing orthoses/prostheses
25. Restoring optimal fit and function of orthoses/prostheses
26. Solving patient's problems related to activities of daily living
27. Documentation
28. Presentation, publication and educational contribution to the profession

KNOWLEDGE AND SKILLS, TECHNICIANS

Knowledge of:

1. Musculoskeletal anatomy, including upper limb, lower limb, spinal
2. Neuroanatomy and neurophysiology
3. Anatomical landmarks (surface anatomy)
4. Kinesiology, including upper limb, lower limb, spinal
5. Normal human locomotion
6. Gait training
7. Pathological gait
8. Tissue characteristics/management
9. Volumetric control
10. Planes of motion
11. Biomechanics
12. Pathologies (e.g., muscular, neurologic, skeletal, vascular)
13. Basic medical terminology
14. Human development and aging, ranging from pediatric to geriatric, as they relate to orthotic and prosthetic treatment
15. Materials science
16. Mechanics (e.g., levers and force systems)
17. Componentry
18. Alignment devices and techniques
19. Hand and power tools
20. Referral/prescription documents
21. Procedures to record data
22. Policies and procedures regarding privileged information
23. Roles and responsibilities associated with other healthcare professions
24. Reimbursement protocols
25. Material safety procedures and standards (e.g. MSDS)
26. Universal precautions, including sterile techniques, infection control, basic first aid/CPR procedures
27. Ethical standards regarding proper patient management, including CBCPO Code of Conduct
28. Scope of practice related to orthotic/prosthetic credentials
29. Boundaries of the scope of practice (i.e., when to refer a patient to other healthcare providers/caregivers)

30. Orthotic/prosthetic design
31. Orthotic/prosthetic fitting criteria
32. Clinical examination techniques, (e.g., range of motion (ROM), manual muscle tests, sensation, proprioception)
33. Measurement tools and techniques
34. Use of outcome measures
35. Impression-taking techniques, materials, devices, and equipment
36. Rectification/modification procedures as they relate to specific orthotic/prosthetic designs
37. Care and maintenance of orthoses/prostheses
38. Computer-aided design and manufacturing (CAD/CAM)
39. Orthotic/prosthetic forms (e.g., assessment, orthometry, measurement, evaluation, outcomes)
40. Patient educational materials
41. Item warranty and warranty limitations
42. Loss control (e.g., risk management, inventory control)
43. Research methodology, literature, evidence based practice protocols
44. Federal and provincial rules, regulations, and guidelines regarding safety
45. CBCPO Facility Accreditation Standards
46. CBCPO Internship Standards

Skill in:

1. Interpreting orthotic/prosthetic prescription documents for the purpose of fabrication (e.g., prescriptions, orders from C.O.(c) or C.P.(c) or C.P.O.(c))
2. Communicating with patient/family/caregiver regarding technical aspects of the orthosis/prosthesis
3. Communicating with referral sources and appropriately licensed healthcare providers regarding technical aspects of the orthosis/prosthesis.
4. Assisting in the technical specifications of an orthotic/prosthetic treatment plan
5. Performing physical examinations of the orthosis/prosthesis
6. Identifying gross surface anatomy
7. Interpreting physical findings and critically analyzing orthoses/prostheses (e.g., recognizing wear, stressors, etc.)
8. Impression-taking/measuring of orthoses/prostheses (for duplication of previous device)
9. Using mechanical measuring devices
10. Using electronic measuring devices
11. Using computer-based measuring devices

12. Patient model rectification (modification)
13. Delineating a tracing
14. Orthotic/prosthetic fabrication
15. Using safety equipment
16. Using hand and power tools
17. Using materials and components
18. Using alignment devices
19. Aesthetic finishing
20. Evaluating fit and function of an orthosis/prosthesis prior to dynamic evaluation
21. Adjusting and modifying orthoses/prostheses
22. Maintaining and repairing orthoses/prostheses
23. Restoring optimal fit and function of orthoses/prostheses
24. Documentation
25. Presentation, publication and educational contribution to the profession

RECOMMENDED OVERALL TEST SPECIFICATIONS

	CP	CO	RTP	RTO
	% of exam	% of exam	% of exam	% of exam
1. Patient Evaluation	17%	28%	7%	3%
2. Treatment Planning	15%	18%	10%	13%
3. Treatment Implementation and Evaluation	36%	33%	64%	70%
4. Ongoing Treatment and Re-evaluation	29%	18%	16%	11%
5. Professional Practice	3%	3%	3%	3%
Total	100%	100%	100%	100%

PRACTICE AREAS

Prosthetic Practice Areas

Percentage of time in prosthetic practice areas by level of credential and total

	CP	RTP	Total
	%	%	%
Partial Foot	4%	9%	5%
Ankle disarticulation	5%	5%	5%
Transtibial	49%	36%	46%
Van Nes	2%	6%	3%
Knee disarticulation	5%	4%	5%
Transfemoral	20%	19%	20%
Hip disarticulation/hemipelvectomy	2%	2%	2%
Transradial or wrist disarticulation	6%	9%	7%
Partial hand	3%	3%	3%
Transhumeral or elbow disarticulation	3%	4%	3%
Shoulder disarticulation/forequarter	1%	1%	1%

Orthotic Practice Areas

Percentage of orthotic work time in practice areas and orthoses
by level of credential and total

	CO	RTO	Total
Practice Area	Practice Areas and Orthoses	Practice Areas and Orthoses	Practice Areas and Orthoses
Lower Extremity	70%	76%	71%
Orthopedic/Diabetic shoes	3%	2%	3%
Custom shoes	1%	<1%	1%
Shoe modifications	3%	6%	4%
FO/SMO	18%	9%	16%
Partial foot	1%	6%	2%
AFO	27%	34%	28%
KO	9%	5%	8%
KAFO	6%	13%	7%
HO	<1%	1%	<1%
HKAFO	1%	1%	1%
FES	1%	<1%	1%
SCO	<1%	<1%	<1%
Spinal and Scoliosis	15%	11%	15%
LSO	5%	2%	5%
CTLSO	<1%	<1%	<1%
TLSO	7%	9%	8%
CTO	<1%	<1%	<1%
CO	1%	<1%	1%
Halo	<1%	0%	<1%
Pectus carinatum	<1%	<1%	<1%
Upper Extremity	9%	8%	8%
HO	1%	<1%	<1%
WHO	6%	6%	6%
WO	1%	<1%	<1%
EWHO	<1%	<1%	<1%
EO	<1%	1%	<1%
SEWHO	<1%	0%	<1%
SO	<1%	<1%	<1%
Cranial	6%	3%	5%
Cranial/facial protection	3%	1%	2.5%
Cranial molding orthosis	3%	2%	2.5%
Seating	1%	1%	1%
Other	<1%	1%	<1%

PATIENT CHARACTERISTICS

Percentage of patients in each age category by cohort

	CP	CO	RTP	RTO
	%	%	%	%
Pediatric (0 to 18)	12%	32%	24%	70%
Adult (19 to 65 years)	49%	43%	62%	10%
Geriatric (more than 65 years)	39%	25%	14%	20%

Percentage of patients in each category by cohort

	CP	CO
	%	%
Upper motor neuron (for example, spasticity, CVA, MS, CP)	2%	27%
Lower motor neuron (for example, flaccid, polio, spina bifida, CMT)	1%	14%
Trauma	20%	9%
Congenital (for example, limb deficiencies, club foot, MD)	10%	7%
Peripheral vascular disease/diabetes	57%	13%
Disease (including cancer, infection)	9%	4%
Orthopaedics (arthritis, overuse, sports injury, scoliosis, plagio)	2%	25%

Appendix 3.

Testable Content by Task, Clinician and Technician Written and Practical Examinations

Clinician Test Content Outline—Testable Tasks

(Blue highlighted cells suggest tasks that can be tested within the context of one OSCE station)

Tasks	Orthotics		Prosthetics	
	Written Exam	Practical Exam	Written Exam	Practical Exam
01 Patient Evaluation	28%		17%	
0101. Obtain consent to treatment	√		√	
0102. Conduct patient interview by taking a comprehensive patient history, including but not limited to medical history (for example, fall history and risk, previous/current treatment and surgeries, allergies to materials, current medication), diagnosis and pathology, signs and symptoms, previous/current use of a prosthesis/orthosis, work history, activities, demographic characteristics, social history and supports (for example, family/friends, workplace), cognitive capacity	√	√	√	√
0103. Review professional reports such as patient charts, documented reports, test results, treatments, referrals and ongoing treatment plans of other health care professionals	√		√	
0104. Conduct physical examination by performing a diagnosis-specific functional clinical and cognitive ability examination that includes manual muscle testing, evaluation of sensory function, range of motion, joint stability, and skin integrity	√	√	√	√
0105. Perform static evaluation (for example, postural assessment, weight/non-weight bearing) with and without prosthesis/orthosis	√	√	√	√
0106. Perform dynamic evaluation (for example, functional analysis, gait analysis) with and without prosthesis/orthosis	√	√	√	√
0107. Review patient goals and expectations	√		√	
0108. Identify and administer outcome measurement tools (for example, pain scale, timed walk test, amputee mobility predictor [AMP]) to determine baseline	√		√	
0109. Obtain information regarding patient from other health care professionals, including technicians	√		√	
0110. Obtain information regarding funding sources				
0111. Document patient evaluation	√		√	

02 Treatment Planning	18%		15%	
0201. Refer patient, if appropriate, to other health care professionals for intervention beyond prosthetic/orthotic scope of practice	√		√	
0202. Research treatment options, including obtaining evidence from literature to achieve treatment goals	√		√	
0203. Research manufacturer's specifications; and materials, components, design, and fabrication techniques	√		√	
0204. Review treatment options with patient, including potential trial of components/prostheses/orthoses	√	√	√	√
0205. Collaborate with other health care professionals regarding treatment options	√	√	√	√
0206. Develop a treatment plan, including prosthetic/orthotic treatment, patient education, continuing and/or coordinated care, based on patient evaluation, needs, and treatment goals	√		√	
0207. Communicate treatment plan to patient and ensure patient understands his or her responsibilities related to the treatment plan	√	√	√	√
0208. Ensure that patient and payors are informed of their financial responsibilities				
0209. Contact funding agencies for pre-approval, and provide letters/documentation of medical necessity when required				
0210. Document treatment plan	√		√	
03 Treatment Implementation and Evaluation	33%		36%	
0301. Provide patient with preparatory care for prosthetic/orthotic treatment (for example, compression garment, serial casting)	√		√	
0302. Select appropriate materials/techniques in order to perform shape capture (cast, impression, measure, trace, digitize, scan) of residual limb/body segment and/or required measurements	√		√	
0303. Prepare patient for procedure required to perform shape capture and/or required measurements	√	√	√	√
0304. Perform shape capture and/or required measurements (for example, anatomical finishes, conventional tracing, height measurement) of residual limb/body segment	√	√	√	√
0305. Perform shape capture and/or required measurements from existing prosthesis/orthosis				
0306. Create positive anatomical model from shape capture (for example, pour/fill cast, carve positive)				
0307. Modify (rectify) anatomical model or image	√	√	√	√
0308. Fabricate/assemble a prosthesis/orthosis to prepare for initial or diagnostic evaluation (fitting)	√	√	√	√
0309. Ensure that materials, design, and components are used as specified in the treatment plan	√		√	

0310.	Assess prosthesis/orthosis for structural integrity prior to patient diagnostic evaluation (fitting)	√	√	√	√
0311.	Ensure that manufacturers' guidelines and all instructions for use have been followed prior to patient diagnostic evaluation (fitting) (for example, torque values, patient weight limits)	√		√	
0312.	Assess/align prosthesis/orthosis for accuracy in sagittal, transverse, and coronal planes (bench alignment)	√	√	√	√
0313.	Perform static and dynamic alignment of prosthesis/orthosis with patient	√	√	√	√
0314.	Assess fit, function, control, and support of prosthesis/orthosis (for example, suspension, volume, pressure distribution, force control system)	√	√	√	√
0315.	After assuring that prosthesis/orthosis is structurally sound, arrange for a trial period with prosthesis/orthosis if required	√		√	
0316.	Complete fabrication process after achieving optimal fit and function of prosthesis/orthosis (for example, convert test socket to definitive prosthesis/orthosis, cosmetic finishing, anatomical shaping)	√		√	
0317.	Re-assess prosthesis/orthosis for structural safety and integrity prior to patient use	√		√	
0318.	Administer outcome measurement tools and compare to baseline	√		√	
0319.	Educate patient about the use and maintenance of the prosthesis/orthosis (for example, wearing schedules, donning/doffing, other instructions)	√		√	
0320.	Refer patient to appropriate health care professionals for necessary ancillary care	√		√	
0321.	Educate and work with other health care professionals, including technicians, with regard to patient treatment	√		√	
0322.	Document treatment implementation	√		√	
0323.	Finalize financial aspects of treatment implementation				

04 Ongoing Treatment and Re-evaluation		18%		29%	
0401.	Obtain feedback from patient to evaluate outcome (for example, wear schedule/tolerance, comfort, perceived benefits and/or detriments, ability to don and doff, proper usage and function, overall satisfaction)	√	√	√	√
0402.	Re-assess patient and note any changes from previous evaluation(s)	√	√	√	√
0403.	Assess prosthesis/orthosis with regard to strategic contact and physical presentation (for example, multiple force systems, total contact, trimlines, static/dynamic alignment) to determine need for changes relative to treatment goals	√	√	√	√

0404.	Evaluate prosthesis/orthosis for structural changes (for example, component or material failure, joint mal-alignment, change in alignment)	√	√	√	√
0405.	Re-administer outcome measurement tools to assess patient's achievement of treatment goals	√		√	
0406.	Formulate and discuss with the patient and payors the ongoing treatment plan to modify or replace prosthesis/orthosis	√		√	
0407.	Modify prosthesis/orthosis, component parts, and/or interface elements	√		√	
0408.	Repair, restore, and/or refurbish prosthesis/orthosis, component parts, and/or interface elements	√		√	
0409.	Replace prosthesis/orthosis, component parts, and/or interface elements	√		√	
0410.	Assess prosthesis/orthosis for structural safety and integrity following modification, repair, or replacement	√		√	
0411.	Evaluate modified prosthesis/orthosis, including static and dynamic evaluation	√	√	√	√
0412.	Reassess patient knowledge on use of prosthesis/orthosis	√		√	
0413.	Communicate ongoing treatment and outcomes with all key stakeholders	√		√	
0414.	Ensure that patient and payors are informed of their financial responsibilities and options regarding modification, repair or replacement of prosthesis/orthosis				
0415.	Document treatment	√		√	
0416.	Document outcomes	√		√	

05 Professional Practice		3%		3%	
0501.	Abide by CBCPO Character and Fitness Rules and Canons of Ethical Conduct	√		√	
0502.	Establish and/or adhere to procedures for patient care in compliance with provincial, territorial, and national legal requirements (for example, protection of personal health information, patient and workplace safety)	√		√	
0503.	Develop, implement and/or monitor policies and procedures with respect to human resources, physical environment, business and financial practices, and organizational management	√		√	
0504.	Participate in personal professional development (for example, participate in continuing education, attend/present at conferences)				
0505.	Contribute to the profession (for example, volunteer in professional associations, committees, and regulatory agencies)				
0506.	Provide education and training for prosthetic and orthotic practitioners, other health care professionals, technicians,				

assistants, office staff, and funding agencies				
0507. Participate in education of Residents and Interns				
0508. Participate in education of students (both prosthetic and orthotic, as well as others)				
0509. Participate in CBCPO Accredited prosthetic and/or orthotic technical or clinical education programs				
0510. Conduct or participate in research, product development, clinical trials, and outcome studies	√		√	
0511. Collaborate with health care professionals and other stakeholders	√		√	
0512. Participate in the development, implementation, and monitoring of public policy regarding prosthetics/orthotics				
0513. Serve as an expert resource (for example, lifetime cost of treatment, future cost of care, expert witness)				
0514. Participate in/with consumer organizations and non-governmental organizations in order to promote competency and enhancement of prosthetic/orthotic profession				

Technician Test Content Outline—Testable Tasks

Tasks	Both RTO and RTP	
	Written Exam	Practical Exam
01 Patient Evaluation	5%	
0101. Obtain consent to treatment		
0102. Conduct patient interview by taking a comprehensive patient history, including but not limited to medical history (for example, fall history and risk, previous/current treatment and surgeries, allergies to materials, current medication), diagnosis and pathology, signs and symptoms, previous/current use of a prosthesis/orthosis, work history, activities, demographic characteristics, social history and supports (for example, family/friends, workplace), cognitive capacity		
0103. Review professional reports such as patient charts, documented reports, test results, treatments, referrals and ongoing treatment plans of other health care professionals	√	
0104. Conduct physical examination by performing a diagnosis-specific functional clinical and cognitive ability examination that includes manual muscle testing, evaluation of sensory function, range of motion, joint stability, and skin integrity		
0105. Perform static evaluation (for example, postural assessment, weight/non-weight bearing) with and without prosthesis/orthosis		
0106. Perform dynamic evaluation (for example, functional analysis, gait analysis) with and without prosthesis/orthosis		
0107. Review patient goals and expectations	√	
0108. Identify and administer outcome measurement tools (for example, pain scale, timed walk test, amputee mobility predictor [AMP]) to determine baseline		
0109. Obtain information regarding patient from other health care professionals, including technicians	√	
0110. Obtain information regarding funding sources		
0111. Document patient evaluation		

02 Treatment Planning	12%	
0201. Refer patient, if appropriate, to other health care professionals for intervention beyond prosthetic/orthotic scope of practice		
0202. Research treatment options, including obtaining evidence from literature to achieve treatment goals		
0203. Research manufacturer's specifications; and materials, components, design, and fabrication techniques	√	
0204. Review treatment options with patient, including potential trial of components/protheses/orthoses	√	
0205. Collaborate with other health care professionals regarding treatment options	√	
0206. Develop a treatment plan, including prosthetic/orthotic treatment,	√	√

	patient education, continuing and/or coordinated care, based on patient evaluation, needs, and treatment goals		
0207.	Communicate treatment plan to patient and ensure patient understands his or her responsibilities related to the treatment plan		
0208.	Ensure that patient and payors are informed of their financial responsibilities		
0209.	Contact funding agencies for pre-approval, and provide letters/documentation of medical necessity when required		
0210.	Document treatment plan	√	

03 Treatment Implementation and Evaluation		65%	
0301.	Provide patient with preparatory care for prosthetic/orthotic treatment (for example, compression garment, serial casting)		
0302.	Select appropriate materials/techniques in order to perform shape capture (cast, impression, measure, trace, digitize, scan) of residual limb/body segment and/or required measurements	√	
0303.	Prepare patient for procedure required to perform shape capture and/or required measurements	√	
0304.	Perform shape capture and/or required measurements (for example, anatomical finishes, conventional tracing, height measurement) of residual limb/body segment	√	√
0305.	Perform shape capture and/or required measurements from existing prosthesis/orthosis	√	√
0306.	Create positive anatomical model from shape capture (for example, pour/fill cast, carve positive)	√	
0307.	Modify (rectify) anatomical model or image	√	
0308.	Fabricate/assemble a prosthesis/orthosis to prepare for initial or diagnostic evaluation (fitting)	√	√
0309.	Ensure that materials, design, and components are used as specified in the treatment plan	√	√
0310.	Assess prosthesis/orthosis for structural integrity prior to patient diagnostic evaluation (fitting)	√	√
0311.	Ensure that manufacturers' guidelines and all instructions for use have been followed prior to patient diagnostic evaluation (fitting) (for example, torque values, patient weight limits)	√	√
0312.	Assess/align prosthesis/orthosis for accuracy in sagittal, transverse, and coronal planes (bench alignment)	√	√
0313.	Perform static and dynamic alignment of prosthesis/orthosis with patient	√	
0314.	Assess fit, function, control, and support of prosthesis/orthosis (for example, suspension, volume, pressure distribution, force control system)	√	
0315.	After assuring that prosthesis/orthosis is structurally sound, arrange for a trial period with prosthesis/orthosis if required		
0316.	Complete fabrication process after achieving optimal fit and function of prosthesis/orthosis (for example, convert test socket to definitive	√	√

	prosthesis/orthosis, cosmetic finishing, anatomical shaping)		
0317.	Re-assess prosthesis/orthosis for structural safety and integrity prior to patient use	√	√
0318.	Administer outcome measurement tools and compare to baseline	√	
0319.	Educate patient about the use and maintenance of the prosthesis/orthosis (for example, wearing schedules, donning/doffing, other instructions)	√	
0320.	Refer patient to appropriate health care professionals for necessary ancillary care		
0321.	Educate and work with other health care professionals, including technicians, with regard to patient treatment	√	
0322.	Document treatment implementation	√	
0323.	Finalize financial aspects of treatment implementation		

04	Ongoing Treatment and Re-evaluation	15%	
0401.	Obtain feedback from patient to evaluate outcome (for example, wear schedule/tolerance, comfort, perceived benefits and/or detriments, ability to don and doff, proper usage and function, overall satisfaction)	√	
0402.	Re-assess patient and note any changes from previous evaluation(s)	√	
0403.	Assess prosthesis/orthosis with regard to strategic contact and physical presentation (for example, multiple force systems, total contact, trimlines, static/dynamic alignment) to determine need for changes relative to treatment goals	√	
0404.	Evaluate prosthesis/orthosis for structural changes (for example, component or material failure, joint mal-alignment, change in alignment)	√	√
0405.	Re-administer outcome measurement tools to assess patient's achievement of treatment goals	√	
0406.	Formulate and discuss with the patient and payors the ongoing treatment plan to modify or replace prosthesis/orthosis		
0407.	Modify prosthesis/orthosis, component parts, and/or interface elements	√	√
0408.	Repair, restore, and/or refurbish prosthesis/orthosis, component parts, and/or interface elements	√	√
0409.	Replace prosthesis/orthosis, component parts, and/or interface elements	√	√
0410.	Assess prosthesis/orthosis for structural safety and integrity following modification, repair, or replacement	√	√
0411.	Evaluate modified prosthesis/orthosis, including static and dynamic evaluation	√	
0412.	Reassess patient knowledge on use of prosthesis/orthosis	√	
0413.	Communicate ongoing treatment and outcomes with all key stakeholders		
0414.	Ensure that patient and payors are informed of their financial responsibilities and options regarding modification, repair or replacement of prosthesis/orthosis		
0415.	Document treatment	√	

0416. Document outcomes	√	
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05 Professional Practice	3%	
0501. Abide by CBCPO Character and Fitness Rules and Canons of Ethical Conduct	√	
0502. Establish and/or adhere to procedures for patient care in compliance with provincial, territorial, and national legal requirements (for example, protection of personal health information, patient and workplace safety)	√	
0503. Develop, implement and/or monitor policies and procedures with respect to human resources, physical environment, business and financial practices, and organizational management	√	
0504. Participate in personal professional development (for example, participate in continuing education, attend/ present at conferences)		
0505. Contribute to the profession (for example, volunteer in professional associations, committees, and regulatory agencies)		
0506. Provide education and training for prosthetic and orthotic practitioners, other health care professionals, technicians, assistants, office staff, and funding agencies	√	
0507. Participate in education of Residents and Interns		
0508. Participate in education of students (both prosthetic and orthotic, as well as others)		
0509. Participate in CBCPO Accredited prosthetic and/or orthotic technical or clinical education programs		
0510. Conduct or participate in research, product development, clinical trials, and outcome studies		
0511. Collaborate with health care professionals and other stakeholders	√	
0512. Participate in the development, implementation, and monitoring of public policy regarding prosthetics/orthotics		
0513. Serve as an expert resource (for example, lifetime cost of treatment, future cost of care, expert witness)		
0514. Participate in/with consumer organizations and non-governmental organizations in order to promote competency and enhancement of prosthetic/orthotic profession		

Appendix 4.

Test Specifications, Clinician and Technician Written and Practical Examinations

Clinician Test Specifications

WRITTEN EXAMS: Testable tasks and percentage of exam							
Clinician	BOTH disciplines	Orthotics Specs			Prosthetic Specs		
Recommended Test Specifications by Domain	# tasks included/ (x=excluded)	# tasks and %	Written % of exam	Practical (tasks to include)	# tasks and %	Written % of exam	Practical (tasks to include)
1. Patient Evaluation	10 (x10)	10 T=28%	28%	2,4,5-6	10 T=17%	17%	2,4,5-6
2. Treatment Planning	8 (x8,9)	8 T=18%	18%	4&7,5	8 T=15%	15%	4 &7,5
3. Treatment Implementation and Evaluation	20 (x5,6,23)	20 T=33%	33%	3-4,7,8, 10,12,13-14	20 T=36%	36%	3-4,7,8, 10,12,13-14
4. Ongoing Treatment and Re-evaluation	15 (x14)	15 T=18%	18%	1,2,3,4,11	15 T=29%	29%	1,2,3,4,11
5. Professional Practice	5 (x4,5,6,7, 8,9,12,13,14)	5 T=3%	3%		5 T=3%	3%	
Total			100%		0%	100%	

PRACTICAL EXAMS: Tasks identified above to be assessed in the content of specific, discreet problems in time limited stations		
ORTHOTICS		
Time Spent in Practice Areas	Practice analysis	Practical exam <i>Recommendations based on 8 to 12 stations</i>
Lower Extremity	70%	6 to 8 stations
Spinal and Scoliosis	15%	2 stations
Upper Extremity	9%	1 station
Cranial	6%	1 station or exclude
Seating	1%	exclude
Other	<1%	exclude
Total time in practice areas	101%	
Patient Characteristics	%	
Pediatric (0 to 18)	32%	<i>Distribute across written exam</i>
Adult (19 to 65 years)	43%	
Geriatric (more than 65 years)	25%	
Total	100%	
PROSTHETICS		
Time Spent in Practice Areas	Practice analysis	Practical exam <i>Recommendations based on 8 to 12 stations</i>
Partial Foot	4%	1 station
Ankle disarticulation	5%	
Transtibial	49%	5 to 6 stations
Van Nes	2%	0 or 1 station
Knee disarticulation	5%	
Transfemoral	20%	2 stations
Hip disarticulation/hemipelvectomy	2%	exclude
Transradial or wrist disarticulation	6%	1 station
Partial hand	3%	
Transhumeral or elbow disarticulation	3%	
Shoulder disarticulation/forequarter	1%	exclude
Total time in practice areas	100%	
Patient Characteristics	%	
Pediatric (0 to 18)	12%	<i>Distribute across written exam</i>
Adult (19 to 65 years)	49%	
Geriatric (more than 65 years)	39%	
Total	100%	

Technician Test Specifications

WRITTEN EXAMS: Testable tasks and percentage of exam				
Technicians			Both RTO & RTP	
Recommended Test Specifications by Domain	# tasks included/ (x=excluded)	# tasks and %	Written % of exam	Practical (tasks to include)
1. Patient Evaluation	3 (x 1,2,4,5,6, 8,10,11)	3 T=5%	5%	
2. Treatment Planning	5 (x 1,2,7,8,9)	5 T=12%	12%	6
3. Treatment Implementation and Evaluation	19 (x 1,15,20,23)	19 T=65%	65%	4,5,8,9,10&17, 11,12,16
4. Ongoing Treatment and Re-evaluation	13 (x 6,13,14)	13 T=15%	15%	4,7,8,9,10
5. Professional Practice	5 (x4,5,7,8,9, 10,12,13,14)	5 T=3%	3%	
Total		45 Tasks	100%	

PRACTICAL EXAMS: Tasks identified above to be assessed in the content of specific, discreet problems in time limited stations			
ORTHOTICS			
Time Spent in Practice Areas	Practice analysis	Practical exam <i>Recommendations based on 8 to 10 stations</i>	RTO current exam
Lower Extremity	76%	6 to 8 stations	<i>Distribute specific activities across stations</i>
Spinal and Scoliosis	11%	1 station	
Upper Extremity	8%	1 station	Joint Alignment 30%
Cranial	3%	exclude	Finishing 45%
Seating	1%	exclude	Vacuum Forming 20%
Other	1%	exclude	Lab protocol 5%
Total time in practice areas	100%		Current practical 100%
Patient Characteristics	%	<i>Distribute across written exam</i>	
Pediatric (0 to 18)	70%		
Adult (19 to 65 years)	10%		
Geriatric (more than 65 years)	20%		
Total	100%		

PROSTHETICS			
Time Spent in Practice Areas	Practice analysis	Practical exam	RTP current exam
Partial Foot	9%	1 station	<i>Distribute specific activities across stations</i>
Ankle disarticulation	5%		
Transtibial	36%	3 to 4 stations	Interface 15%
Van Nes	6%	1 station	Lamination 25%
Knee disarticulation	4%		
Transfemoral	19%	2 stations	Lay-up 10%
Hip disarticulation/hemipelvectomy	2%	exclude	Bench Set Up 20%
Transradial or wrist disarticulation	9%	1 to 2 stations	Diagnostic Device 15%
Partial hand	3%		
Transhumeral or elbow disarticulation	4%		
Shoulder disarticulation/forequarter	1%	exclude	Suspension Aid 10%
Total time in practice areas	98%		Lab protocol 5%
Patient Characteristics	%	<i>Distribute across written exam</i>	Current practical 100%
Pediatric (0 to 18)	24%		
Adult (19 to 65 years)	62%		
Geriatric (more than 65 years)	14%		
Total	100%		