



Job Task Analysis Study

**Diplomate of the American Chiropractic Board of Sports
Physicians® (DACBSP®)**

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Executive Summary

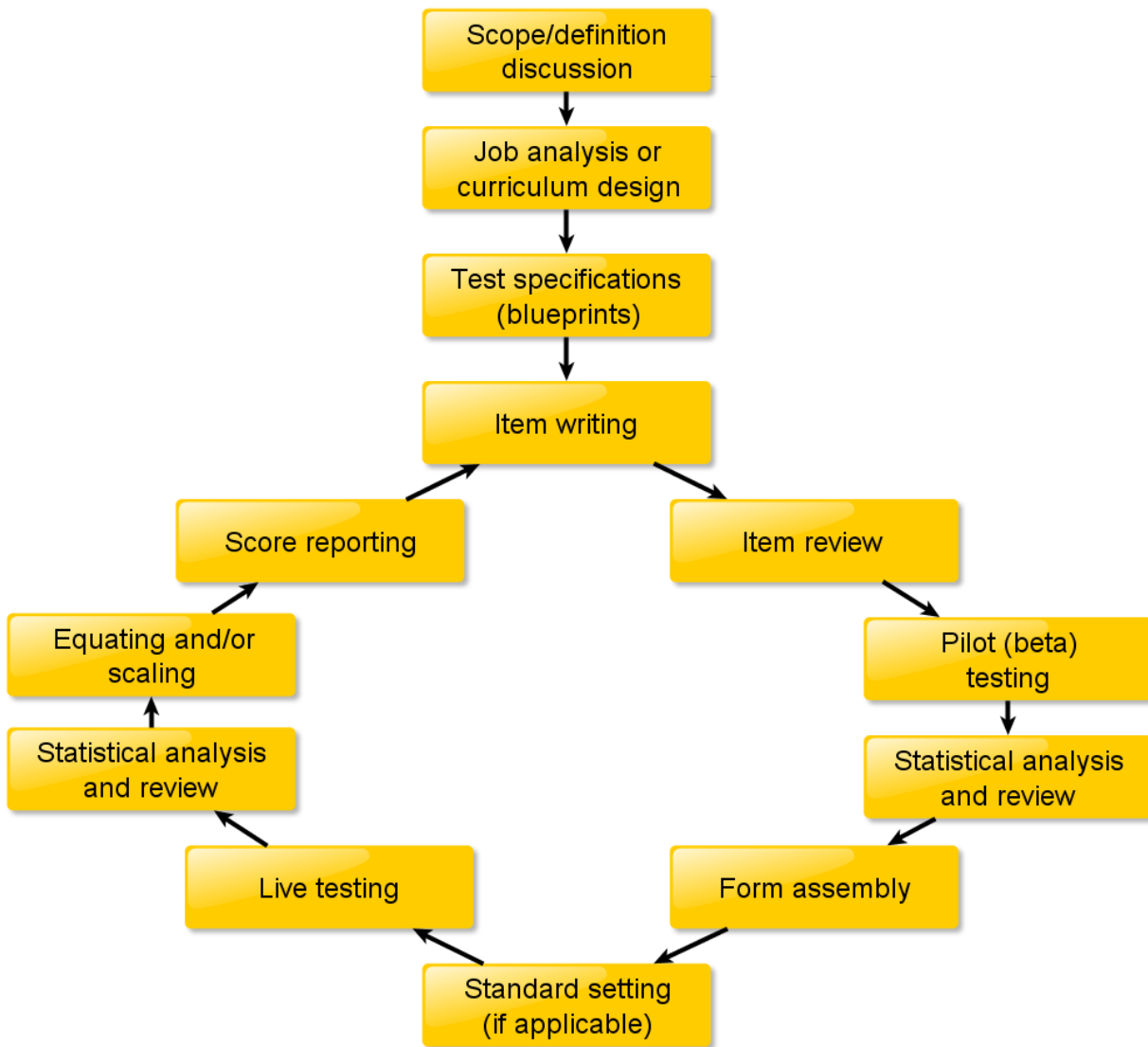
This report describes a job task analysis study completed by the American Chiropractic Board of Sports Physicians (ACBSP) for the *Diplomate of the American Chiropractic Board of Sports Physicians (DACBSP)* certification. The study was conducted to obtain detailed empirical data regarding the profession, which will be used to design a certification test. A job analysis is the first step in the process of credentialing test development, and absolutely essential to establishing validity because it provides a link between the exam process and professional practice.

First, a list of tasks was generated by a panel of experienced subject matter experts, the Written Exam Committee of ACBSP. This list was used to create a survey regarding the importance of each task and the time spent on each; 90 incumbents (people actively working in the field, performing a relevant level of professional work) started the survey, with 62 of them completing at least 95% and being included in the results. The survey provides empirical information regarding which tasks are most important and require the most time; such tasks and their associated knowledge, skills, and abilities (KSAs) deserve more weight on the exam. This report provides detail on the methodology and results of this survey.

The Validity Argument

Validity refers to whether there is evidence to support given interpretations of test scores. The modern conceptualization of validity views is from an argumentative perspective (Kane, 1992; 2004). That is, the testing organization must present a chain of evidence in support of an argument for the intended use of a test.

Professional credentialing tests rely on **content validation**; that is, the primary link in the chain is to establish that the content of the test is appropriate. That is, the intended interpretation is that someone who passes the test has a certain level of knowledge regarding the content and the skills required to do a job competently. We must therefore provide a chain of evidence from the test scores back to the job itself. A graphical characterization of the certification exam development process is shown below.



The first step in the chain is the job; we must perform a scientific analysis of what the job entails in order to adequately design a test to assess skills for the job. This is known as **job analysis** or **practice analysis**. Standard 14 of the National Commission for Certifying Agencies (NCCA), which accredits certification testing organizations, states:

Standard 14: Job Analysis

The certification program must have a job analysis that defines and analyzes domains and tasks related to the purpose of the credential, and a summary of the study must be published.

The content validation approach is appropriate for credentialing because the intended interpretation of test scores is merely that a person is qualified to perform the job. This is contrasted to **predictive validation**, where the goal of the test is to predict a continuum of job performance. For example, selection tests are often validated by correlating test score with ratings of job performance, in hopes that scores on the test will predict better job performance and therefore can be used to select better applicants. Credentialing tests demonstrate that someone has the basic knowledge and skills to perform adequately, so validation focuses not on top performance, but rather on determining the basic competence in knowledge and skills.

To provide a psychometrically sound foundation for the development of a certification exam, ASC conducted a job analysis survey. This report details the design and results of this study, and the implications for test design. Future efforts will document further development along the test process outlined above.

Study Design

A standard textbook on job analysis (Brannick, Levine, & Moregeson, 2007) describes several designs for a job analysis study; a model commonly used for credentialing exams is a **task inventory** (Raymond & Neustel, 2006). The goal of this approach is to produce a comprehensive list of professional tasks performed on the job, then have a wide range of incumbents rate each task on aspects such as **importance** and **time spent** on the task in a normal work week. This provides empirical evidence as to which tasks are more important or more frequent in the job; those tasks should obviously have more weight on the final test than rare or unimportant tasks.

A committee of subject matter experts (SMEs) is necessary to oversee this process. The following experienced professionals served on the panel for this study.

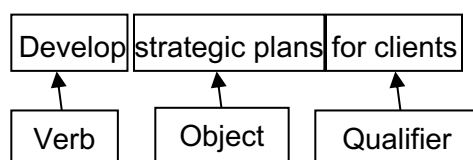
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The following presents the steps in the study methodology.

1. Develop test definition and broad outline to provide the initial link in the validity chain (currently exists)
2. Generate exhaustive list of task elements of the profession, by reviewing past job analysis and updating
3. Develop rating scales for tasks, and demographic questions to assess sampling
4. Publish and deliver survey
5. Analyze survey results

What is a task statement?

A task statement is a phrase that describes a discrete activity on the job that has a beginning and an end and typically produces some sort of finished product (report, brief, plan, diagnosis, measurement, etc.) or works toward a goal (Gael, 1983). The phrase typically has three parts: an action verb, a direct object noun, and an (optional) qualifier or descriptor (Brannick, Levine, & Moregeson, 2007, p. 50). This is depicted in the example below.



Determine domains and subdomains

A web meeting with the advisory board in March 2021 discussed the domains and professional tasks. First, the experts reviewed the domains and subdomains from the previous JTA, producing the list below.

Domain	Subdomain
I. Exercise Physiology	I.A Physiologic Response to exercise
I. Exercise Physiology	I.B Clinical Measurement of Athletic Performance and Physiological Response
I. Exercise Physiology	I.C Chemical, Hormonal, and Metabolic Effects of Exercise
II. Rehabilitation Concepts and their Application to Athletes	II.A Rehabilitation Concepts
II. Rehabilitation Concepts and their Application to Athletes	II.B Rehabilitation, Strength and Conditioning
II. Rehabilitation Concepts and their Application to Athletes	II.C Return to Play Protocols
III. Sport Specific Biomechanics	III.A Detailed Examination of Sports Specific Biomechanics
IV. Diagnostics in Sports Medicine	IV.A Imaging Modalities
IV. Diagnostics in Sports Medicine	IV.B Knowledge of the Indications for Performance of or Referral for Electro Diagnostics
IV. Diagnostics in Sports Medicine	IV.C Compartmental Pressure Analysis
IV. Diagnostics in Sports Medicine	IV.D Clinical Laboratory and Drug Testing Protocols
V. Functional and Supportive Taping, Bracing and Splinting	V.A Therapeutic and Prophylactic uses of Braces, Taping and Splinting
V. Functional and Supportive Taping, Bracing and Splinting	V.B Taping, Bracing or Splinting for Different Injuries and Regions
V. Functional and Supportive Taping, Bracing and Splinting	V.C Footwear and Orthotics
VI. Biopsychosocial Considerations	V.A Clinical mental health
VI. Biopsychosocial Considerations	V.B Performance mental health
VI. Biopsychosocial Considerations	V.C Abuse prevention, education, and accountability in sport
VII. Sports Equipment and Technology	VII.A Sports Equipment and Technology
VIII. Advanced Principles of Joint Manipulation	VIII.A Understand and Apply the Theories of Adjustive Technique
VIII. Advanced Principles of Joint Manipulation	VIII.B Manipulation for Loss of Joint Play
VIII. Advanced Principles of Joint Manipulation	VIII.C Utilization of and Knowledge of Graded Mobilization
IX. Evaluation And Management Of Soft Tissue	IX.A Mechanisms of Soft Tissue Injuries
IX. Evaluation And Management Of Soft Tissue	IX.B Pathology of Soft Tissue Injury
IX. Evaluation And Management Of Soft Tissue	IX.C Evaluation of Soft Tissue Injury
IX. Evaluation And Management Of Soft Tissue	IX.D Application of Soft Tissue Treatment

IX. Evaluation And Management Of Soft Tissue	IX.E Soft Tissue Physiotherapy Modalities
X. Special Populations in Sport	X.A The Pediatric/Adolescent Athlete
X. Special Populations in Sport	X.B The Female Athlete
X. Special Populations in Sport	X.C The Geriatric Athlete
X. Special Populations in Sport	X.D The Adaptive Sport Athlete
X. Special Populations in Sport	X.E Special considerations for systemic conditions in sport
X. Special Populations in Sport	X.F Special Considerations in Ultra-Sports
XI. Emergency Procedures	XI.A Athletic Trauma and Bloodborne Pathogens
XI. Emergency Procedures	XI.B Basic Life Support - Pre-Hospital Care
XI. Emergency Procedures	XI.C Medical Legal Considerations in Sport
XI. Emergency Procedures	XI.D Catastrophic and Pandemic Events
XII. Sports Medicine Research	XII.A Identifying and Evaluating Research
XII. Sports Medicine Research	XII.B Critical Appraisal of Research Literature
XII. Sports Medicine Research	XII.C Research and Publication
XIII. Team Physician Concepts	XIII.A Standards of Care
XIII. Team Physician Concepts	XIII.B Diagnosis
XIII. Team Physician Concepts	XIII.C Evaluate and Manage Head Injuries
XIII. Team Physician Concepts	XIII.D Evaluate and Manage Spine Injuries and Disorders
XIII. Team Physician Concepts	XIII.E Evaluate and Manage Injuries to the Thorax and Abdomen
XIII. Team Physician Concepts	XIII.F Evaluate and Manage Injuries to the Chest (heart, lung, chest wall, etc...)
XIII. Team Physician Concepts	XIII.G Evaluate and Manage Injuries to the Pelvis
XIII. Team Physician Concepts	XIII.H Evaluate and Manage Injuries to the Genitalia
XIII. Team Physician Concepts	XIII.I Evaluate and Manage Injuries to the Lower Extremity
XIII. Team Physician Concepts	XIII.J Evaluate and Manage Injuries to the Upper Extremity
XIII. Team Physician Concepts	XIII.K Evaluate and Manage Injuries to Soft Tissue
XIII. Team Physician Concepts	XIII.L Evaluate and Manage Injuries to peripheral nerves
XIII. Team Physician Concepts	XIII.M Evaluate and Manage Injuries and skin infections
XIII. Team Physician Concepts	XIII.N Evaluate and Manage Environmental Illness & Injury
XIII. Team Physician Concepts	XIII.O Evaluate and Manage Infectious Disease
XIV. Anti-doping and Pharmacology in Sports Medicine	XIV.A Evaluate Supplements for Benefits and Risks
XIV. Anti-doping and Pharmacology in Sports Medicine	XIV.B Evaluate medications for Benefits and Risks
XIV. Anti-doping and Pharmacology in Sports Medicine	XIV.C Knowledge of Anti-doping Rules and Regulations
XIV. Anti-doping and Pharmacology in Sports Medicine	XIV.D Knowledge of Over the Counter Medications
XV. Concussion	XV.A Evaluate and manage concussion in the context of sport coverage
XV. Concussion	XV.B Evaluate and manage concussion in the clinical office setting
XV. Concussion	XV.C Evaluate and manage post-concussion syndrome
XVI. Nutrition	XVI.A Chemical, Hormonal, and Metabolic Effects of Exercise

XVI. Nutrition	XVI.B Nutritional needs
XVI. Nutrition	XVI.C Special dietary considerations
XVI. Nutrition	XVI.D Supplementation
XVII. Preparticipation Exam	XVII.A Preparticipation Examination

Generate and review task list

The next step was to define a comprehensive list of professional task statements (often simply called “tasks”). The list of tasks from the previous JTA were reviewed and updated. A total of 204 tasks were in the final list. This is an appropriate number for an advanced medical certification; we do not want too few tasks (they will be too broad), or too many tasks (they will be too detailed).

Publish survey

After a final review, the list of tasks was deemed ready to be released as a task inventory survey. The domains and the number of tasks are listed below.

Domain (Content Area)	Tasks
<i>I. Exercise Physiology</i>	8
<i>II. Rehabilitation Concepts and their Application to Athletes</i>	12
<i>III. Sport Specific Biomechanics</i>	5
<i>IV. Diagnostics in Sports Medicine</i>	16
<i>V. Functional and Supportive Taping, Bracing and Splinting</i>	7
<i>VI. Biopsychosocial Considerations</i>	9
<i>VII. Sports Equipment and Technology</i>	7
<i>VIII. Advanced Principles of Joint Manipulation</i>	6
<i>IX. Evaluation And Management Of Soft Tissue</i>	17
<i>X. Special Populations in Sport</i>	37
<i>XI. Emergency Procedures</i>	22
<i>XII. Sports Medicine Research</i>	6
<i>XIII. Team Physician Concepts</i>	22
<i>XIV. Anti-doping and Pharmacology in Sports Medicine</i>	4
<i>XV. Concussion</i>	15
<i>XVI. Nutrition</i>	5
<i>XVII. Preparticipation Exam</i>	6

A task inventory was designed to assess each task on importance and frequency. The following rating scales were used, with textual anchors to make certain that participants were responding in the same frame of mind. For statistical analysis, these were assigned integer points (0, 1, 2, 3, and 4).

<i>Frequency</i>	<i>Description</i>
Never	I never perform this activity in practice
Rarely	I perform this activity in 1-25% of patient encounters
Occasionally	I perform this activity in 26-50% of patient encounters
Frequently	I perform this activity in 51-75% of patient encounters
Routinely	I perform this activity in 76-100% of patient encounters

<i>Importance</i>	<i>Description</i>
Not important	Understanding and application are not important in DACBSP practice
Slightly important	Understanding and application are minimally important in DACBSP practice
Moderately important	Understanding and application are moderately important in DACBSP practice
Very important	Understanding and application are extremely important in DACBSP practice
Extremely important	Understanding and application are fundamental and essential in DACBSP practice

Before being released, several demographic questions were added to provide information regarding the distribution of survey participants. This was done to evaluate the range of participants, as it is important to have a sample from a wide range. Possible answers for these are shown in the results section of this report.

1. Gender

2. DACBSP condition
3. Industry or work setting
4. Highest education achieved
5. Years of experience
7. State/Province
8. Sports organizations affiliated

The survey was published with an online survey delivery service. The URL to the survey was then disseminated, with an email invitation and reminders to existing DACBSP certificants. The survey was active for over one month before data was accessed for analysis.

Results

A total of 90 professionals participated in the survey. However, only 62 completed more than 95% of the survey, 22 surveys had more than 10% of missing data and 6 surveys did not provide information. However, 62 complete responses were considered to be a statistically stable number. The following sections present summaries of the demographics describing this sample; the sample was widely dispersed in terms of the demographics listed above, providing evidence that the sample was appropriate and adequate.

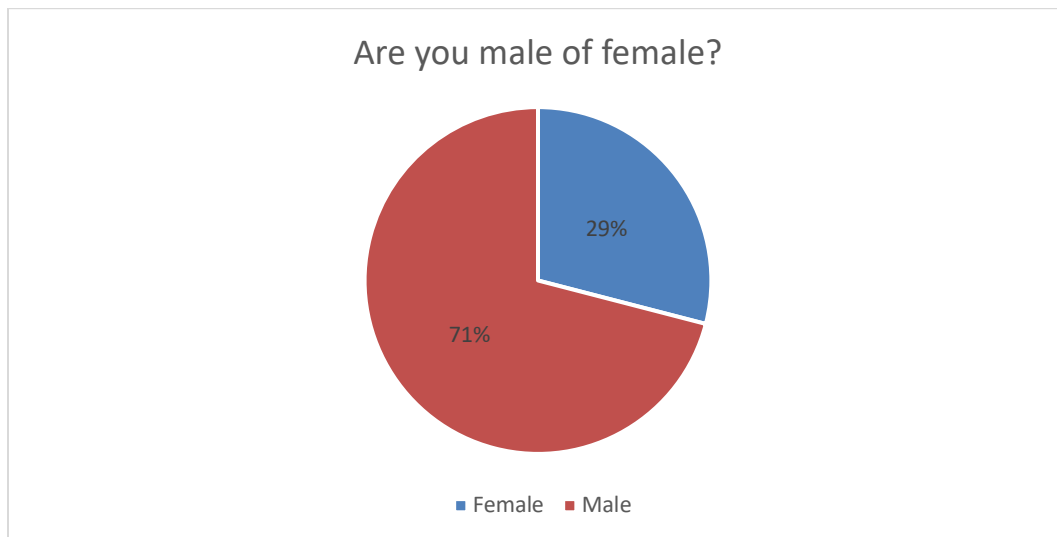
Gender

A total of 62 respondents answered the demographic question on gender, 29% female and 71% male.

Table 1: Gender distribution

Gender	N	Percent
Male	44	71%
Female	18	29%
Total	62	

Figure 1: Gender distribution



DACBSP condition

A total of 62 respondents answered the demographic question about DACBSP certification. All 62 respondents are currently certified DACBSP (100%).

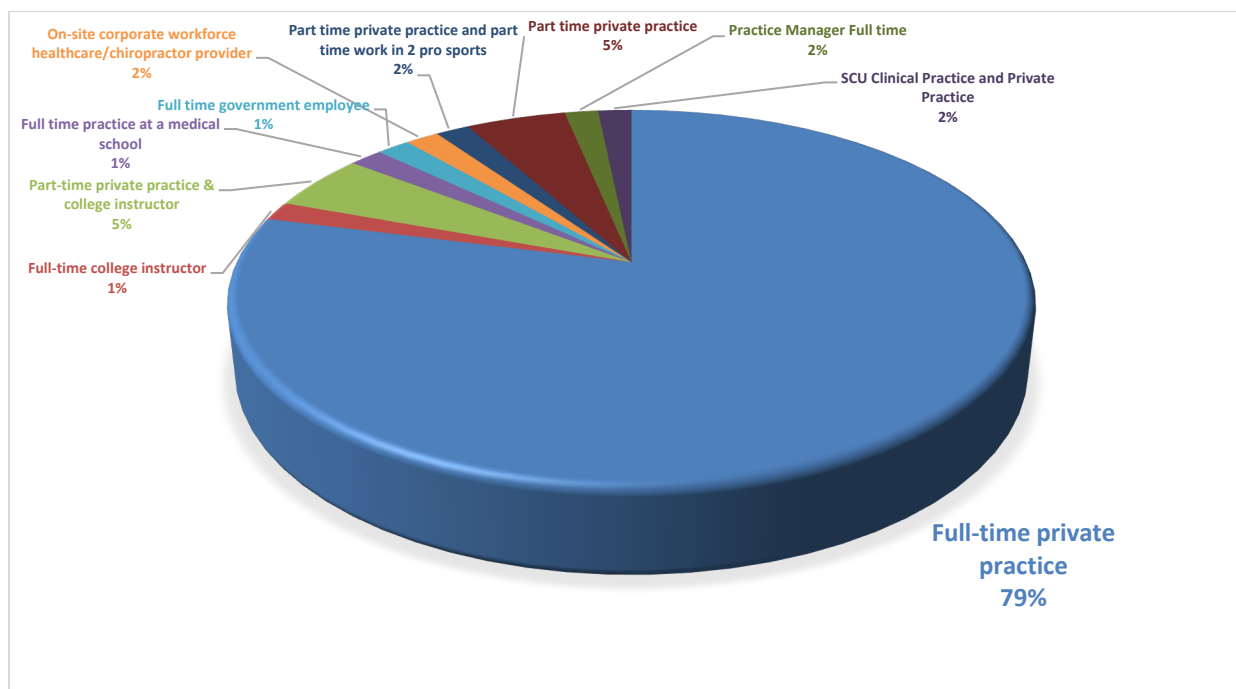
Industry or work setting

According to the survey, most DACBSP work in a full-time private practice (79.05%). There are 14.50% of respondents that report other work settings; complete list is shown in table and figure 2.

Table 2: Work setting distribution.

Setting	N	Percent
Full-time private practice	49	79.05%
Full-time college instructor	1	1.61%
Part-time private practice & college instructor	3	4.84%
Full time practice at a medical school	1	1.61%
Full time government employee	1	1.61%
On-site corporate workforce healthcare/chiropractor provider	1	1.61%
Part time private practice and part time work in 2 pro sports	1	1.61%
Part time private practice	3	4.84%
Practice Manager Full time	1	1.61%
SCU Clinical Practice and Private Practice	1	1.61%
Total	62	100%

Figure 2: Work setting distribution.



In addition, respondents on average use 52% of their practice in the care, prevention or rehabilitation of sports injuries.

Education

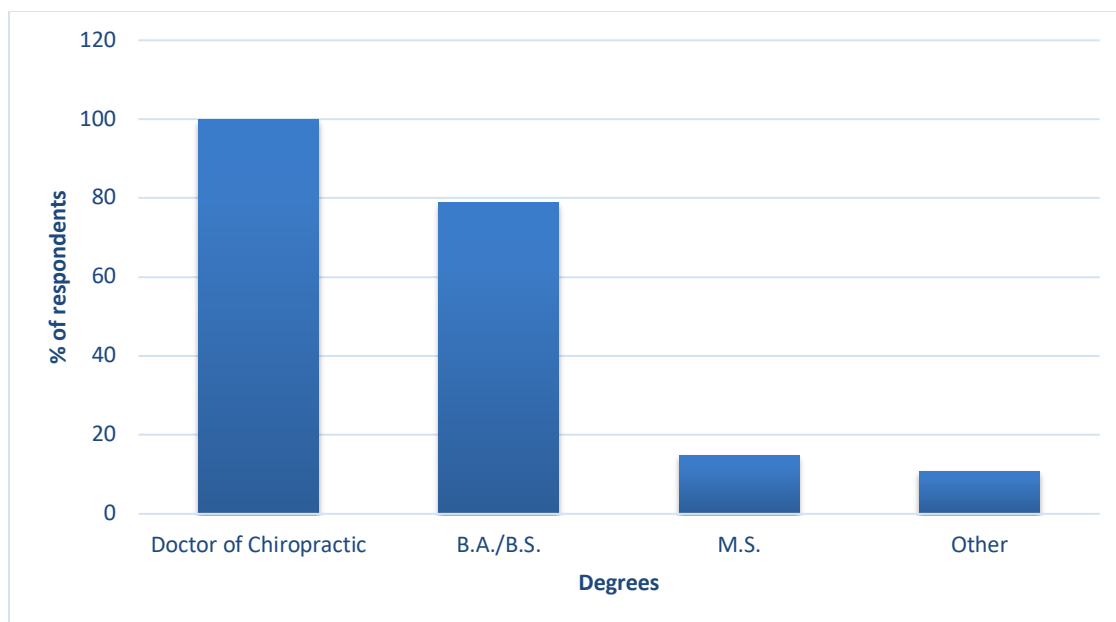
Because this is an advanced chiropractic certification, 100% of respondents have a D.C degree (Doctor of Chiropractic), followed by 79% with a B.A/B.S. and 15% with an M.S. Eleven percent (11%) report to have other relevant certifications like MAOM, ICSC, CCSP, DACBSP, ATC, CCEP, CVCP, etc. See below table and figure 3 for details.

Table 3: Education distribution

Education	N	Percent
Doctor of Chiropractic	62	100%
B.A./B.S.	49	79%
M.S	9	15%
Other (ICSC, CCSP, DACBSP)	7	11%

Note that a respondent can hold more than one degree.

Figure 3: Education distribution



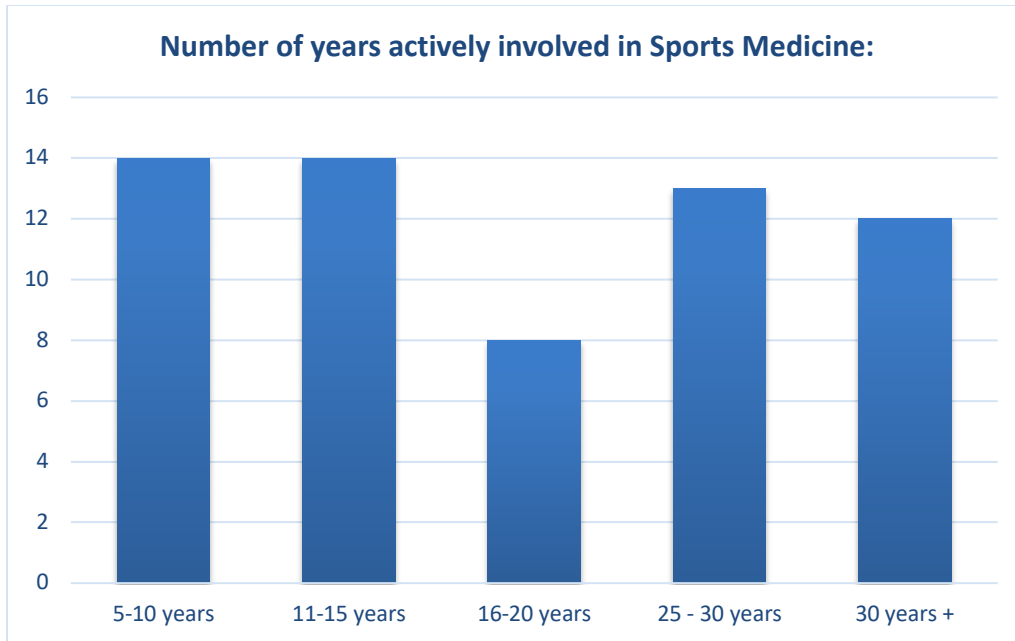
Years of experience

Years of experience is evenly distributed, as seen in the table below.

Table 4: Years of experience

Years	N	Percent
5-10 years	14	23%
11-15 years	14	23%
16-20 years	8	13%
25-30 years	13	21%
More than 30 years	12	20%
Total	61	

Figure 4: Years of experience



Geography

Respondents from the survey were distributed across the United States, with the largest portion coming from the West.

Table 5: Geographical distribution

Region	N	Percent
Midwest	10	16%
Northeast	14	23%
South	14	23%
West	24	39%
Total	62	

Figure 5: Geographical distribution

Task ratings

The mean rating of both time and importance was calculated for each task statement. In addition, mean time and importance were combined with both an additive model ($T + I$) and multiplicative model ($T \times I$), as mentioned in Raymond and Neustel (2006). Each of these provides an index of the significance of the task in the role of a professional. Table 6 presents the means of these four indices for each of the six major domains, as well as the number of tasks included in the final survey. It also includes the sum of the Importance x Time index across all tasks in a domain, which provides a quantification of the importance and time for tasks in that domain. This will be used in a later report to derive test specifications.

Table 6: Task rating means for content areas

Domain	Total	Mean Imp.	Mean Freq.	Mean I + F	Mean I x F	Sum I x F
<i>I. Exercise Physiology</i>	8	3.19	2.62	5.82	8.55	68.37
<i>II. Rehabilitation Concepts and their Application to Athletes</i>	12	3.50	3.10	6.60	10.91	130.97
<i>III. Sport Specific Biomechanics</i>	5	3.59	3.30	6.89	11.90	59.48
<i>IV. Diagnostics in Sports Medicine</i>	16	2.67	1.29	3.96	3.60	57.54
<i>IX. Evaluation And Management Of Soft Tissue</i>	7	3.34	2.89	6.23	9.92	168.68
<i>V. Functional and Supportive Taping, Bracing and Splinting</i>	9	3.32	2.64	5.95	8.84	61.90
<i>VI. Biopsychosocial Considerations</i>	7	3.28	1.77	5.05	5.83	52.50
<i>VII. Sports Equipment and Technology</i>	6	2.81	1.61	4.42	4.57	31.97
<i>VIII. Advanced Principles of Joint Manipulation</i>	17	3.73	3.61	7.34	13.49	80.94
<i>X. Special Populations in Sport</i>	37	3.26	2.09	5.35	6.99	258.52
<i>XI. Emergency Procedures</i>	22	3.45	1.87	5.32	6.48	142.51
<i>XII. Sports Medicine Research</i>	6	3.11	2.07	5.18	6.56	39.34
<i>XIII. Team Physician Concepts</i>	22	3.54	2.53	6.07	9.12	200.67
<i>XIV. Anti-doping and Pharmacology in Sports Medicine</i>	4	3.23	2.09	5.32	6.76	27.05
<i>XV. Concussion</i>	15	3.67	2.82	6.49	10.36	155.41
<i>XVI. Nutrition</i>	5	3.20	2.21	5.42	7.09	35.46
<i>XVII. Preparticipation Exam</i>	6	3.38	2.13	5.50	7.21	43.29

Table 6 shows that the *Special Populations in Sports* (37), *Emergency procedures* (22) and *Team physician concepts* (22) had the most tasks, but the highest average Time x Frequency ratings were for the *Advanced Principles of Joint Manipulation* domain. *Advanced principles of Joint Manipulation* had the highest mean ratings across tasks for both Importance and Frequency individually, so that even though it has only 6 tasks, it deserves relatively greater coverage on the examination. *Anti-doping and pharmacology* had the fewest tasks (4) but still had a mean Importance rating greater than 3.00 and a mean Frequency greater than 2.00. Meanwhile, *Diagnostics in Sports Medicine* had a relatively high number of tasks (16), but it had the lowest mean ratings. This type of information will be important when determining the relative weight of the examination devoted to each domain.

However, the primary goal of the job analysis study is to produce the four indices above for each individual task. Appendices A and B show just that; Appendix A lists the tasks sorted by content areas (domains) as arranged in Table 6 above, while Appendix B lists the same data but sorted by the Time x Importance rating. Appendix B provides empirical data for an evaluation of which tasks are most frequent and important in the day-to-day work of a DACBSP.

The next step in the test development process is to perform a closer analysis of ratings and decide which content merits coverage on the test that will be developed. That is a separate step, and will be discussed in a future report detailing the specifications of the new test.

Summary

This report describes an updated job analysis study for DACBSP credential. The goal of the study was to produce a comprehensive list of professional tasks performed on the job as a DACBSP, with empirical data regarding the importance and frequency of those tasks.

The first step was the development of the list of tasks by a committee of subject matter experts. Once this was completed, a survey was constructed utilizing the list as well as a number of demographic variables. The survey was disseminated in the field via professional networks and administered to 90 professionals, though only 62 fully completed responses. The data set was analyzed to provide a depiction of both the demographic qualities of the sample as well as the structure of the profession, as detailed in the Results section.

The completion of a job analysis survey is merely one step in the test development cycle, but a critical first step that lays the foundation for validity and defensibility. The next step is to identify which tasks should be covered on the test, and the relative weight assigned to tasks and domains. However, that is not directly part of the job analysis study, but of the test design step; the goal of task inclusion is not analyzing the job but rather producing the blueprints for the test. Therefore, selection of tasks for inclusion will be documented in a separate test design report.

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Appendix A: Tasks listed by content area

Domain	Task	Imp	Freq	I+F	IxF	Not	Slightl y	Mod.	Very	Ext.	Never	Rarel y	Occ	Freq	Rout
I. Exercise Physiology	Understand cardiovascular and metabolic response to various types of exercise	2.89	2.18	5.06	6.29	0	5	16	22	19	3	17	18	14	10
I. Exercise Physiology	Utilize and relate mechanical influences on muscle function	3.42	3.18	6.60	10.86	2	3	3	13	41	3	5	4	16	34
I. Exercise Physiology	Measure and interpret performance labs	2.51	1.52	4.02	3.80	4	7	18	18	14	13	20	18	6	5
I. Exercise Physiology	Understand the changes in vital signs with exercise	3.27	2.61	5.88	8.53	1	2	11	13	35	4	10	12	15	20
I. Exercise Physiology	Understand the response of muscle to various types of exercise	3.45	3.15	6.60	10.86	0	2	5	18	37	0	4	10	21	27
I. Exercise Physiology	Understand acclimatization to heat, humidity and altitude	3.15	2.23	5.37	7.00	2	5	7	16	32	7	13	14	15	13
I. Exercise Physiology	Understand the differences in muscle response to each of the following types of exercises:	3.39	3.10	6.48	10.49	1	3	6	13	39	0	6	14	10	32

	concentric, eccentric, isometric														
I. Exercise Physiology	Understand the physiological changes associated with exercise	3.48	3.03	6.51	10.54	0	3	5	13	40	1	4	13	18	26
II. Rehabilitation Concepts and their Application to Athletes	Apply and monitor strength and conditioning programs	3.23	2.66	5.88	8.57	2	1	8	21	30	2	9	16	15	19
II. Rehabilitation Concepts and their Application to Athletes	Demonstrate and recommend therapeutic stretches	3.68	3.58	7.26	13.17	2	1	0	9	50	2	1	2	11	46
II. Rehabilitation Concepts and their Application to Athletes	Evaluate, manage and apply return-to-play criteria for head, trunk and spinal injuries	3.69	3.13	6.82	11.56	3	0	1	5	53	3	4	10	10	35
II. Rehabilitation Concepts and their Application to Athletes	Apply strength and conditioning testing protocols	3.03	2.37	5.40	7.19	1	4	11	22	24	3	13	19	12	15

II. Rehabilitation Concepts and their Application to Athletes	Demonstrate and recommend range of motion exercises	3.68	3.56	7.24	13.11	1	1	1	11	48	1	1	5	10	45
II. Rehabilitation Concepts and their Application to Athletes	Evaluate, manage and apply return-to-play criteria for extremity injuries	3.63	3.10	6.73	11.24	2	1	2	8	49	4	2	10	14	32
II. Rehabilitation Concepts and their Application to Athletes	Evaluate proprioception	3.53	3.18	6.71	11.22	0	3	4	12	43	1	2	15	11	33
II. Rehabilitation Concepts and their Application to Athletes	Evaluate, manage and apply return-to-play criteria for illnesses	3.26	2.23	5.48	7.25	1	4	7	16	34	7	14	12	16	13
II. Rehabilitation Concepts and their Application to Athletes	Perform and analyze functional movement	3.44	3.16	6.60	10.87	2	1	6	12	41	2	3	12	10	34

II. Rehabilitation Concepts and their Application to Athletes	Design rehabilitation programs	3.60	3.50	7.10	12.59	1	1	4	10	46	0	3	6	10	43
II. Rehabilitation Concepts and their Application to Athletes	Understand specific injury healing time frames	3.60	3.29	6.89	11.83	2	0	4	9	47	2	3	5	17	35
II. Rehabilitation Concepts and their Application to Athletes	Implement rehabilitation programs	3.61	3.43	7.04	12.38	1	1	2	13	45	0	4	7	9	41
III. Sport Specific Biomechanics	Evaluate trunk and spinal biomechanics	3.73	3.68	7.40	13.70	2	0	2	5	53	1	0	3	10	48
III. Sport Specific Biomechanics	Evaluate upper extremity biomechanics	3.71	3.53	7.24	13.10	2	0	2	6	52	1	1	4	14	42
III. Sport Specific Biomechanics	Evaluate lower extremity biomechanics	3.70	3.52	7.23	13.06	2	0	2	6	51	1	2	3	13	42
III. Sport Specific Biomechanics	Interpret ergonomic efficiency of gait	3.34	2.90	6.25	9.71	0	3	7	17	34	2	5	15	15	25

III. Sport Specific Biomechanics	Interpret ergonomic efficiency of sports specific actions (e.g. golf swing, baseball bat swing, throwing)	3.45	2.87	6.32	9.91	0	2	7	14	39	2	7	13	15	25
IV. Diagnostics in Sports Medicine	Evaluate and manage acute exertional compartment syndrome	2.92	1.23	4.15	3.58	2	6	12	17	25	22	16	14	8	2
IV. Diagnostics in Sports Medicine	Order and interpret hematology studies (CBC/CMP, etc)	2.77	1.35	4.13	3.76	7	1	18	9	27	24	8	19	6	5
IV. Diagnostics in Sports Medicine	Utilize electromyography (EMG)	2.42	0.97	3.39	2.34	7	7	17	15	16	24	17	19	0	1
IV. Diagnostics in Sports Medicine	Utilize radiographs	3.26	2.18	5.44	7.09	0	5	9	13	35	4	13	22	14	9
IV. Diagnostics in Sports Medicine	Evaluate and manage chronic exertional compartment syndrome	2.94	1.37	4.31	4.02	1	6	13	18	24	18	16	17	9	2
IV. Diagnostics in Sports Medicine	Order and interpret urine studies (dipstick, SG, etc)	2.53	1.18	3.71	2.99	7	8	12	15	20	26	15	9	5	6

IV. Diagnostics in Sports Medicine	Utilize computed tomography	2.82	1.32	4.15	3.73	2	9	14	10	27	14	25	14	7	2
IV. Diagnostics in Sports Medicine	Utilize motor nerve conduction (NCV) study	2.50	1.03	3.53	2.58	5	9	15	16	17	22	20	17	2	1
IV. Diagnostics in Sports Medicine	Order and interpret blood chemistry studies for various chemical components (Glucose, LDH, AST, etc)	2.73	1.44	4.16	3.91	5	4	16	15	22	23	9	16	8	6
IV. Diagnostics in Sports Medicine	Utilize echocardiography & electrocardiography	2.35	0.82	3.17	1.93	7	11	15	11	18	34	10	13	2	2
IV. Diagnostics in Sports Medicine	Utilize magnetic resonance imaging	3.39	2.50	5.89	8.47	1	3	6	13	39	5	7	17	18	15
IV. Diagnostics in Sports Medicine	Utilize arthrography	2.74	1.32	4.06	3.63	5	7	12	13	25	16	21	16	7	2
IV. Diagnostics in Sports Medicine	Utilize pulmonary function testing	2.15	0.77	2.92	1.66	9	13	16	8	16	30	19	11	1	1

IV. Diagnostics in Sports Medicine	Utilize ultrasonography	2.79	1.56	4.35	4.37	4	8	11	13	26	13	18	18	9	4
IV. Diagnostics in Sports Medicine	Utilize angiography	2.18	0.75	2.93	1.64	10	9	17	10	15	32	16	11	0	2
IV. Diagnostics in Sports Medicine	Utilize nuclear medicine bone scan	2.27	0.81	3.08	1.83	9	11	13	12	17	32	14	13	2	1
IX. Evaluation And Management Of Soft Tissue	Apply sports event massage	2.74	1.64	4.38	4.49	7	5	9	17	24	23	8	8	12	10
IX. Evaluation And Management Of Soft Tissue	Evaluate soft tissue injuries	3.76	3.76	7.52	14.12	2	0	0	7	53	2	0	0	7	53
IX. Evaluation And Management Of Soft Tissue	Recommend and implement physiotherapies and electrotherapies (TENS, EMS, Galvanic, Iontophoresis, IF, Low volt, High volt, Microcurrent)	2.84	1.98	4.82	5.63	6	4	9	17	25	19	7	9	8	18
IX. Evaluation And Management Of Soft Tissue	Understand contusion injuries	3.60	3.02	6.61	10.85	1	2	2	11	46	4	2	10	19	27

IX. Evaluation And Management Of Soft Tissue	Understand macroscopic vs. microscopic injury	3.25	2.79	6.03	9.05	0	5	9	13	34	3	8	15	8	27
IX. Evaluation And Management Of Soft Tissue	Apply manual soft tissue mobilization	3.65	3.52	7.16	12.82	2	0	3	8	49	3	1	1	13	44
IX. Evaluation And Management Of Soft Tissue	Recommend and implement therapeutic ultrasound and phonophoresis	2.52	1.63	4.15	4.10	8	7	12	15	20	22	10	12	5	13
IX. Evaluation And Management Of Soft Tissue	Understand muscle imbalance(s)	3.71	3.52	7.23	13.04	1	1	3	5	52	1	2	6	8	45
IX. Evaluation And Management Of Soft Tissue	Understand the chemistry of injury	3.15	2.44	5.59	7.69	1	2	14	14	30	2	14	16	13	16
IX. Evaluation And Management Of Soft Tissue	Apply instrument-assisted soft tissue mobilization	3.53	3.16	6.69	11.17	1	2	5	9	45	2	6	5	16	33
IX. Evaluation And Management Of Soft Tissue	Determine excessive load	3.47	3.03	6.50	10.52	1	1	6	14	40	2	4	13	14	29

IX. Evaluation And Management Of Soft Tissue	Recommend and implement laser and light therapies	2.72	1.66	4.38	4.51	4	6	14	16	21	24	7	9	8	13
IX. Evaluation And Management Of Soft Tissue	3.Differentiate between acute injury and chronic injury	3.64	3.48	7.11	12.65	2	0	4	6	49	2	2	4	10	43
IX. Evaluation And Management Of Soft Tissue	Apply differential diagnosis of tendinopathy vs. muscular pathology	3.59	3.51	7.10	12.60	2	0	3	11	45	1	2	5	10	43
IX. Evaluation And Management Of Soft Tissue	Recommend and implement thermal modalities (heat, ice, contrast)	3.24	2.89	6.13	9.36	4	3	4	14	37	5	6	9	13	29
IX. Evaluation And Management Of Soft Tissue	4.Understand overuse injuries	3.71	3.45	7.16	12.80	2	0	2	6	52	1	1	7	13	40
IX. Evaluation And Management Of Soft Tissue	Understand soft tissue healing	3.67	3.62	7.30	13.30	2	0	2	8	49	1	0	2	15	43
V. Functional and Supportive Taping, Bracing and Splinting	Evaluation of injury mechanics for selection of supportive taping, bracing or splinting	3.60	3.02	6.61	10.85	0	2	3	13	44	2	5	10	18	27

V. Functional and Supportive Taping, Bracing and Splinting	Select and apply orthotics	2.82	1.76	4.58	4.96	1	9	14	14	24	15	14	13	11	9
V. Functional and Supportive Taping, Bracing and Splinting	Taping, bracing or supporting techniques for the trunk and spine	3.38	2.59	5.97	8.75	1	4	4	14	38	6	10	10	12	23
V. Functional and Supportive Taping, Bracing and Splinting	Communicate with others regarding taping, bracing or supports	3.39	2.77	6.16	9.40	1	4	5	12	40	6	7	7	17	25
V. Functional and Supportive Taping, Bracing and Splinting	Taping, bracing or supporting techniques for the extremities	3.61	3.10	6.70	11.17	2	0	4	8	47	3	4	8	15	31
V. Functional and Supportive Taping, Bracing and Splinting	Understanding the influence of different shoes on biomechanics	3.23	2.56	5.79	8.27	1	1	10	21	29	3	10	14	19	16
V. Functional and Supportive Taping, Bracing and Splinting	Recommend the selection of different types of athletic footwear	3.19	2.66	5.85	8.50	0	3	13	15	31	5	8	13	13	23

VI. Biopsychosocial Considerations	Assess and manage psychological stress in athletes	3.24	2.31	5.55	7.48	2	3	8	14	35	6	11	17	14	14
VI. Biopsychosocial Considerations	Identify the symptoms and manage overreaching and overtraining	3.61	2.65	6.26	9.56	0	3	3	9	47	3	12	9	18	20
VI. Biopsychosocial Considerations	Recognize forms of abuse in athletes	3.37	1.42	4.79	4.78	2	2	9	7	42	16	17	20	5	4
VI. Biopsychosocial Considerations	Communicate with psychology/psychiatry professionals regarding athletes and sporting activities	2.98	1.82	4.81	5.44	3	4	11	17	27	16	11	15	8	12
VI. Biopsychosocial Considerations	Develop coping skills	3.32	2.39	5.71	7.93	2	2	6	16	36	6	8	16	20	12
VI. Biopsychosocial Considerations	Intervention and reporting of abuse in athletes	3.39	1.19	4.58	4.04	2	3	7	7	43	23	17	13	5	4

VI. Biopsychosocial Considerations	Identify and manage eating disorders	3.11	1.42	4.53	4.42	4	3	10	10	35	15	19	16	11	1
VI. Biopsychosocial Considerations	Recognize signs of substance abuse	3.27	1.42	4.69	4.65	3	3	6	12	38	11	29	11	7	4
VI. Biopsychosocial Considerations	Recognizing and understanding opioid misuse and opioid use disorder (OUD)	3.18	1.32	4.50	4.21	3	4	7	12	35	18	22	10	8	4
VII. Sports Equipment and Technology	Understand materials and their mechanical properties	2.85	1.61	4.47	4.60	2	5	17	14	24	17	11	18	11	5
VII. Sports Equipment and Technology	Understanding standards for testing and certification of equipment	2.61	1.25	3.86	3.26	5	7	15	15	20	25	13	10	9	4
VII. Sports Equipment and Technology	Select proper equipment for specific body regions and sport-specific equipment	2.82	1.50	4.32	4.23	3	8	11	15	25	18	17	12	8	7
VII. Sports Equipment and Technology	Understand and apply pulse oximetry	3.06	2.03	5.10	6.23	4	4	6	18	30	11	16	10	10	15

VII. Sports Equipment and Technology	Selection of heart monitoring devices	2.56	1.40	3.97	3.60	6	9	14	10	23	18	19	14	4	7
VII. Sports Equipment and Technology	Select and stock sideline bags	2.87	1.92	4.79	5.51	7	5	6	15	29	18	6	14	11	13
VII. Sports Equipment and Technology	Fit crutches	2.90	1.56	4.47	4.54	4	4	11	18	25	19	15	13	4	11
VIII. Advanced Principles of Joint Manipulation	Application of effective mobilization techniques	3.74	3.73	7.47	13.94	2	0	1	6	53	1	1	2	6	52
VIII. Advanced Principles of Joint Manipulation	Application of manipulation techniques of the axial skeleton	3.79	3.66	7.44	13.84	2	0	0	5	54	2	0	3	7	49
VIII. Advanced Principles of Joint Manipulation	Identifying different types of motion abnormalities	3.48	3.21	6.69	11.18	2	3	1	13	43	2	5	5	16	34
VIII. Advanced Principles of Joint Manipulation	Application of manipulation techniques of the appendicular skeleton	3.79	3.64	7.43	13.79	2	0	0	5	55	1	2	1	10	47

VIII. Advanced Principles of Joint Manipulation	Identify the pathologic processes and clinical situations in which limited motion of soft tissues and joints can occur	3.76	3.71	7.47	13.94	1	1	1	6	53	1	0	4	6	51
VIII. Advanced Principles of Joint Manipulation	Recognize relative and absolute contraindications for manipulation	3.84	3.71	7.55	14.24	2	0	0	2	58	1	3	1	3	54
X. Special Populations in Sport	Evaluate and manage common injuries in Ultra-Sports	3.05	1.48	4.52	4.50	1	5	14	12	30	20	14	12	8	7
X. Special Populations in Sport	Evaluate and manage diabetes in sport	3.00	1.34	4.34	4.02	3	5	7	21	26	19	17	15	8	3
X. Special Populations in Sport	Perform geriatric preparticipation evaluation	2.90	1.32	4.23	3.84	3	10	6	14	29	23	15	10	9	5
X. Special Populations in Sport	Recognize common areas of injury in female athletes	3.61	3.06	6.68	11.07	1	1	3	11	46	1	4	10	22	25
X. Special Populations in Sport	Recognize the physiological characteristics for pediatric and adolescent age groups	3.51	2.94	6.44	10.30	2	1	4	11	43	4	6	9	14	29

X. Special Populations in Sport	Understand the classifications of different athletic groupings of the adaptive sport athlete (e.g. blind, deaf, amputee, wheelchair, Paralympic, Special Olympics, etc)	2.84	1.40	4.24	3.98	7	2	13	12	28	26	11	10	4	11
X. Special Populations in Sport	10. Evaluate, manage and apply return to play criteria for concussion injury in the adolescent population	3.68	2.55	6.23	9.37	2	1	3	3	53	9	7	11	11	24
X. Special Populations in Sport	Evaluate and manage asthma in sport	3.11	1.81	4.92	5.62	2	6	5	19	30	12	13	18	13	6
X. Special Populations in Sport	Identify cardiac concerns in the geriatric athlete	3.05	1.42	4.47	4.32	4	7	3	16	32	20	15	10	10	5
X. Special Populations in Sport	Understand musculoskeletal differences in various age groups	3.63	3.11	6.74	11.30	1	1	3	10	47	2	3	11	16	30
X. Special Populations in Sport	Understand organizations and groups of the adaptive sport athlete	2.76	1.42	4.18	3.91	6	7	9	14	26	25	13	8	5	11
X. Special Populations in Sport	Understand the role of strength and conditioning in rehabilitation and	3.66	3.11	6.77	11.40	1	1	2	10	48	1	5	9	18	29

	prevention of injury in females															
X. Special Populations in Sport	Evaluate and manage connective tissue diseases in sport (e.g. Marfan Syndrome)	3.26	1.32	4.58	4.31	3	3	4	17	35	18	21	13	5	5	
X. Special Populations in Sport	Evaluate and manage osteochondral and growth plate injury	3.56	2.23	5.79	7.93	2	2	1	11	46	7	13	15	13	14	
X. Special Populations in Sport	Perform fitness assessment in adaptive sport athletes	2.75	1.11	3.87	3.07	5	9	6	17	24	28	17	6	4	7	
X. Special Populations in Sport	Prescribe exercise for geriatrics	3.31	2.19	5.50	7.25	3	3	5	12	39	12	10	9	16	15	
X. Special Populations in Sport	Screen health history, menstrual history, diet history and exercise history for risk factors	3.61	2.77	6.39	10.02	0	3	0	15	44	3	9	11	15	24	
X. Special Populations in Sport	Evaluate and manage the pregnant athlete	3.35	1.85	5.21	6.22	0	3	7	17	35	11	14	19	9	9	
X. Special Populations in Sport	Identify the signs of the Relative Energy Deficiency in Sport (RED-S)	3.18	1.50	4.68	4.77	3	3	10	10	36	18	18	11	7	8	
X. Special Populations in Sport	Understand proper utilization of cardiovascular exercise	3.39	2.18	5.58	7.41	1	3	4	16	37	6	11	21	10	12	

X. Special Populations in Sport	Understand the benefits and risks of organized sports participation for all populations	3.55	3.10	6.65	10.99	1	1	3	15	42	3	7	4	15	33
X. Special Populations in Sport	Understand the mechanics of wheelchairs and assistive devices	2.71	1.24	3.95	3.37	4	7	14	15	22	26	15	9	4	8
X. Special Populations in Sport	Counsel athletes about postmenopausal exercise	3.05	1.79	4.84	5.46	1	3	16	14	28	11	16	19	7	9
X. Special Populations in Sport	Evaluate and manage comorbidities in sport	3.27	2.21	5.48	7.23	2	3	7	14	36	8	10	17	15	12
X. Special Populations in Sport	Perform specialized preparticipation assessments	2.72	1.10	3.82	2.98	4	10	11	10	26	31	12	8	4	7
X. Special Populations in Sport	Recognize age-specific concerns in young athletes	3.52	2.89	6.40	10.15	2	1	5	9	45	2	5	17	12	26
X. Special Populations in Sport	Understand the importance of strength training in the geriatric athlete	3.39	2.26	5.65	7.65	2	2	5	14	39	10	10	13	12	17
X. Special Populations in Sport	Evaluate and manage fractures and awareness of common locations of fractures in pediatric athletes	3.53	2.38	5.91	8.40	4	2	0	7	49	9	5	19	10	18

X. Special Populations in Sport	Identify the most common types of injuries	3.42	2.24	5.66	7.65	2	1	5	15	39	16	8	5	6	24
X. Special Populations in Sport	Manage of specific geriatric injuries and conditions	3.18	2.18	5.35	6.92	2	3	10	14	33	12	7	14	16	13
X. Special Populations in Sport	Understand issues of societal acceptability, gender identification, and psychological aspects of competition and their effects upon performance and compliance, etc..	2.74	1.29	4.03	3.54	6	6	12	12	26	25	15	8	7	7
X. Special Populations in Sport	Evaluate and manage bone mineralization disorders	3.06	1.60	4.66	4.89	2	4	10	18	28	12	20	15	11	4
X. Special Populations in Sport	Identify the most common sports-specific conditions	3.40	2.31	5.71	7.85	2	2	5	13	40	14	8	8	9	23
X. Special Populations in Sport	Understand the strength training recommendations and safety precautions for pediatric and adolescent age groups	3.48	2.74	6.23	9.55	2	2	3	12	43	2	7	17	15	21
X. Special Populations in Sport	Evaluate and manage of arthritis	3.32	2.79	6.11	9.27	0	5	6	15	36	4	9	10	12	27

X. Special Populations in Sport	Understand the effects of exercise in the pediatric and adolescent athlete	3.55	2.81	6.35	9.96	1	1	5	11	44	2	7	16	13	24
X. Special Populations in Sport	9. Evaluate, manage and apply return to play criteria for concussion injury in the pediatric population	3.65	2.21	5.85	8.05	3	1	3	1	54	12	13	8	8	21
XI. Emergency Procedures	Knowledge of potential support role in catastrophic	3.24	1.35	4.60	4.39	2	6	6	9	39	26	13	9	3	11
XI. Emergency Procedures	Knowledge of team physician roles and responsibilities	3.65	2.34	5.99	8.55	1	2	2	8	49	14	6	11	5	25
XI. Emergency Procedures	Perform and interpret the primary survey	3.60	1.68	5.27	6.03	3	0	2	9	48	20	12	11	6	13
XI. Emergency Procedures	Understand and utilize personal protective equipment	3.44	2.63	6.06	9.03	2	2	5	11	42	8	11	5	10	28
XI. Emergency Procedures	10. Evaluate and manage on-the-field/sideline emergencies (i.e. cardiac arrest, head trauma, spinal trauma, shock, bleeding, fractures/dislocation, and other first responder duties, etc)	3.66	1.48	5.15	5.43	2	1	2	6	51	24	10	12	6	10

XI. Emergency Procedures	Apply control plans and preventive measures	3.32	2.32	5.65	7.72	1	4	6	14	37	12	10	9	8	23
XI. Emergency Procedures	Knowledge of Good Samaritan laws	3.55	2.03	5.58	7.21	2	1	5	7	47	18	7	11	7	19
XI. Emergency Procedures	Knowledge of role in pandemic events	3.18	1.85	5.03	5.89	5	4	5	9	39	17	13	10	6	16
XI. Emergency Procedures	Perform and interpret the secondary survey	3.54	1.73	5.27	6.11	3	1	3	7	47	20	12	10	5	15
XI. Emergency Procedures	Knowledge of protected health information rules	3.45	2.75	6.21	9.51	3	1	6	7	45	11	4	8	4	34
XI. Emergency Procedures	Manage post-exposure follow-up and record keeping	3.32	2.26	5.58	7.50	2	5	4	11	40	13	10	10	6	23
XI. Emergency Procedures	Perform and interpret the Glasgow Coma Scale	3.50	1.32	4.82	4.63	2	3	3	8	46	22	18	9	6	7
XI. Emergency Procedures	Create and implement emergency action plans	3.50	1.48	4.98	5.19	3	2	2	9	46	22	15	9	5	11
XI. Emergency Procedures	Knowledge of informed consent in sport	3.55	2.98	6.53	10.59	2	2	4	6	48	7	4	8	7	36
XI. Emergency Procedures	Utilize equipment to evaluate sporting environments	2.90	1.61	4.52	4.68	5	5	12	9	31	24	6	13	8	11

XI. Emergency Procedures	Recognize and mitigate areas of sports medicine liability (negligence, patient abandonment, athlete physician relationship, etc)	3.53	2.60	6.13	9.17	2	3	3	6	48	12	5	9	6	30
XI. Emergency Procedures	Understand use of oxygen tanks	3.35	1.10	4.45	3.68	4	1	6	9	42	29	17	6	1	9
XI. Emergency Procedures	Ability to create and maintain medical record documentation	3.65	3.41	7.05	12.43	2	1	3	5	51	4	2	5	4	46
XI. Emergency Procedures	Select and apply airway management devices	3.42	0.95	4.37	3.25	5	0	4	8	45	31	15	8	1	6
XI. Emergency Procedures	Select and apply hard cervical collars	3.53	1.02	4.55	3.59	3	1	5	4	49	27	22	5	1	7
XI. Emergency Procedures	Select and apply spinal immobilization (backboards, etc)	3.53	0.92	4.45	3.25	3	1	4	6	48	32	17	6	0	7
XI. Emergency Procedures	9. Select and apply extremity immobilization	3.52	1.33	4.84	4.67	3	0	4	10	45	19	20	11	5	6
XII. Sports Medicine Research	Critically appraise scientific literature	3.10	1.98	5.08	6.14	2	3	11	17	29	10	13	19	6	13
XII. Sports Medicine Research	Read publications in sports medicine	3.29	2.61	5.90	8.60	1	3	7	17	34	2	10	16	16	18

XII. Sports Medicine Research	Translate research findings to clinical practice	3.37	2.41	5.78	8.12	1	1	7	18	35	6	8	15	19	13
XII. Sports Medicine Research	Understand research terminology	3.23	2.55	5.77	8.22	3	2	8	14	35	4	9	18	11	20
XII. Sports Medicine Research	Write a paper for peer-review	2.74	0.97	3.71	2.65	9	2	11	14	26	25	26	4	2	5
XII. Sports Medicine Research	Identify research design	2.92	1.92	4.84	5.60	5	4	9	17	27	9	19	15	6	13
XIII. Team Physician Concepts	Evaluate and manage head injuries, excluding concusssion (acute subdural hematoma, epidural hematoma, axonal injury, etc)	3.71	1.87	5.58	6.93	2	1	2	3	54	14	15	12	5	15
XIII. Team Physician Concepts	Evaluate and manage injuries to peripheral nerves	3.71	2.90	6.61	10.77	2	0	2	6	52	2	6	14	14	26
XIII. Team Physician Concepts	Evaluate and manage injuries to soft tissue	3.74	3.66	7.40	13.70	2	0	1	6	53	2	0	2	9	49
XIII. Team Physician Concepts	Evaluate and manage injuries to the chest	3.53	1.77	5.31	6.27	2	0	6	9	45	12	16	18	6	10
XIII. Team Physician Concepts	Evaluate and manage injuries to the genitalia	3.19	0.77	3.97	2.47	4	4	4	14	36	32	20	4	4	2

XIII. Team Physician Concepts	Evaluate and manage injuries to the lower extremity	3.73	3.39	7.11	12.62	2	0	3	3	54	3	1	6	11	41
XIII. Team Physician Concepts	Evaluate and manage injuries to the pelvis	3.60	2.61	6.21	9.40	2	0	4	9	47	4	7	17	15	19
XIII. Team Physician Concepts	Evaluate and manage injuries to the thorax and abdomen	3.53	1.94	5.47	6.84	2	0	5	11	44	9	17	18	5	13
XIII. Team Physician Concepts	Evaluate and manage injuries to the upper extremity	3.73	3.40	7.13	12.68	2	0	3	3	54	2	1	7	12	40
XIII. Team Physician Concepts	Evaluate and manage skin injuries and infections	3.34	1.45	4.79	4.85	1	3	8	12	38	16	18	16	8	4
XIII. Team Physician Concepts	Evaluate and manage spine injuries and disorders	3.71	3.00	6.71	11.13	2	0	3	4	53	3	8	8	10	33
XIII. Team Physician Concepts	Identify and apply precautionary measure	3.29	1.87	5.16	6.15	1	3	11	9	38	13	15	15	3	15
XIII. Team Physician Concepts	Obtain and interpret a medical history	3.79	3.66	7.45	13.86	2	0	1	3	55	2	2	2	3	53
XIII. Team Physician Concepts	Prevent and manage environmental illness	3.02	1.29	4.31	3.89	1	5	14	14	28	20	20	9	10	3
XIII. Team Physician Concepts	Understand and apply the concepts of the ACBSP Position stands	3.37	2.74	6.11	9.23	2	2	8	9	41	8	6	7	13	27

XIII. Team Physician Concepts	Manage emergent heat, cold and environmental illnesses	3.32	1.52	4.84	5.04	2	2	8	12	38	18	19	10	5	10
XIII. Team Physician Concepts	Perform and interpret neuropsychological testing	3.29	1.55	4.84	5.09	2	4	7	10	39	20	16	7	10	9
XIII. Team Physician Concepts	Perform and interpret physical examination	3.79	3.69	7.48	14.00	2	0	1	3	56	2	1	2	4	53
XIII. Team Physician Concepts	Understand and apply the standard of care in sports medicine	3.58	3.26	6.84	11.67	2	0	5	8	47	5	4	2	10	41
XIII. Team Physician Concepts	Evaluate and manage fluid imbalance	3.40	1.92	5.32	6.53	2	3	4	12	41	8	20	12	13	9
XIII. Team Physician Concepts	Perform and interpret orthopedic examinations	3.77	3.71	7.48	14.00	2	0	1	4	55	2	1	2	3	54
XIII. Team Physician Concepts	Perform and interpret neurologic examination	3.77	3.59	7.36	13.55	2	0	1	4	55	2	2	3	5	49
XIV. Anti-doping and Pharmacology in Sports Medicine	Evaluate medications for benefits and risks	3.18	1.80	4.98	5.73	2	4	8	15	33	10	19	14	9	9
XIV. Anti-doping and Pharmacology in Sports Medicine	Evaluate supplements for benefits and risks	3.13	2.21	5.34	6.91	2	3	11	15	31	9	10	17	11	15

XIV. Anti-doping and Pharmacology in Sports Medicine	Understand anti-doping rules and regulations	3.23	1.73	4.95	5.57	4	4	6	8	40	18	14	12	3	15
XIV. Anti-doping and Pharmacology in Sports Medicine	Understand over-the-counter medications	3.37	2.62	5.99	8.84	2	2	9	7	42	7	7	12	11	24
XV. Concussion	Evaluate and manage post-concussion syndrome	3.63	2.41	6.04	8.75	2	1	2	8	49	7	9	14	14	17
XV. Concussion	Knowledge of baseline assessment tools	3.57	2.63	6.20	9.40	2	2	1	10	46	6	8	16	5	27
XV. Concussion	Knowledge of baseline assessment tools	3.60	2.76	6.35	9.92	2	1	3	8	48	5	7	12	12	26
XV. Concussion	Perform detailed history	3.69	3.03	6.73	11.20	2	1	1	6	52	3	8	9	6	36
XV. Concussion	Recognize and triage emergent symptoms	3.66	2.24	5.90	8.21	2	1	2	6	51	11	9	17	4	21
XV. Concussion	Perform detailed physical examination	3.71	3.06	6.77	11.37	2	0	2	6	52	3	8	7	8	36
XV. Concussion	Perform focused history	3.71	3.11	6.82	11.55	2	1	1	5	53	6	4	7	5	40
XV. Concussion	Perform detailed neurological examination	3.71	3.02	6.73	11.19	2	0	2	6	52	3	9	7	8	35
XV. Concussion	Perform focused physical examination	3.69	3.19	6.89	11.80	2	1	1	6	52	4	6	5	6	41

XV. Concussion	Perform focused neurological examination	3.66	3.18	6.84	11.63	2	1	2	6	51	4	6	5	7	40
XV. Concussion	Understand and utilize concussion assessment tools	3.68	2.60	6.27	9.55	2	0	2	8	50	4	8	20	7	23
XV. Concussion	Develop appropriate treatment plan, including appropriate referrals	3.71	3.05	6.76	11.31	2	0	2	6	52	4	6	8	9	35
XV. Concussion	Understand and utilize concussion assessment tools	3.65	2.58	6.23	9.41	2	1	3	5	51	7	8	12	12	23
XV. Concussion	Develop and implement appropriate Return-to-Play protocol	3.65	2.69	6.34	9.82	2	1	3	5	51	6	7	12	12	25
XV. Concussion	Develop and implement appropriate Return-to-Play protocol	3.68	2.81	6.48	10.32	2	0	2	8	50	3	10	10	12	27
XVI. Nutrition	Manage dietary concerns and restrictions	3.13	2.13	5.27	6.68	2	2	11	16	29	7	12	19	10	12
XVI. Nutrition	Understand and implement appropriate supplementation	3.11	2.18	5.30	6.79	1	4	12	14	30	5	17	13	14	12
XVI. Nutrition	Understand general macronutrient and micronutrient needs of the athlete	3.23	2.32	5.55	7.49	2	1	9	17	31	3	12	20	13	12
XVI. Nutrition	Understand sport-specific macronutrient and	3.26	2.23	5.49	7.27	1	1	12	14	33	4	13	20	13	11

	micronutrient needs of the athlete														
XVI. Nutrition	Understand sport specific macronutrient and micronutrient needs of the athlete	3.26	2.21	5.48	7.22	1	2	11	13	34	5	12	20	13	11
XVII. Preparticipation Exam	Perform the preparticipation history	3.49	2.39	5.88	8.34	3	1	4	7	44	11	9	9	6	24
XVII. Preparticipation Exam	Perform the preparticipation physical examination	3.42	2.21	5.63	7.56	4	1	5	5	44	15	6	10	6	21
XVII. Preparticipation Exam	Perform the preparticipation neurological examination	3.41	2.14	5.54	7.28	4	2	4	5	44	16	7	10	5	21
XVII. Preparticipation Exam	Perform a 12-point AHA cardiac examination screening	3.14	1.54	4.68	4.84	5	3	6	10	35	23	9	10	6	11
XVII. Preparticipation Exam	Interpret preparticipation examination findings and make clearance/referral decisions	3.41	1.97	5.37	6.70	3	1	6	8	41	20	5	9	7	18
XVII. Preparticipation Exam	Apply the standards defined by the ACBSP Position Stand on the preparticipation exam	3.41	2.52	5.92	8.58	3	1	7	6	42	11	8	3	12	24

Appendix B: Tasks listed by Time x Importance

Domain	Task	Imp	Freq	I+F	IxF	Not	Slight	Mod	Very	Ext	Never	Rare	Occ	Freq	Rout.
VIII. Advanced Principles of Joint Manipulation	Recognize relative and absolute contraindications for manipulation	3.84	3.71	7.55	14.24	2	0	0	2	58	1	3	1	3	54
IX. Evaluation And Management Of Soft Tissue	Evaluate soft tissue injuries	3.76	3.76	7.52	14.12	2	0	0	7	53	2	0	0	7	53
XIII. Team Physician Concepts	Perform and interpret orthopedic examinations	3.77	3.71	7.48	14.00	2	0	1	4	55	2	1	2	3	54
XIII. Team Physician Concepts	Perform and interpret physical examination	3.79	3.69	7.48	14.00	2	0	1	3	56	2	1	2	4	53
VIII. Advanced Principles of Joint Manipulation	Application of effective mobilization techniques	3.74	3.73	7.47	13.94	2	0	1	6	53	1	1	2	6	52
VIII. Advanced Principles of Joint Manipulation	Identify the pathologic processes and clinical situations in which limited motion of soft tissues and joints can occur	3.76	3.71	7.47	13.94	1	1	1	6	53	1	0	4	6	51
XIII. Team Physician Concepts	Obtain and interpret a medical history	3.79	3.66	7.45	13.86	2	0	1	3	55	2	2	2	3	53

VIII. Advanced Principles of Joint Manipulation	Application of manipulation techniques of the axial skeleton	3.7 9	3.66	7.44	13.8 4	2	0	0	5	54	2	0	3	7	49
VIII. Advanced Principles of Joint Manipulation	Application of manipulation techniques of the appendicular skeleton	3.7 9	3.64	7.43	13.7 9	2	0	0	5	55	1	2	1	10	47
III. Sport Specific Biomechanics	Evaluate trunk and spinal biomechanics	3.7 3	3.68	7.40	13.7 0	2	0	2	5	53	1	0	3	10	48
XIII. Team Physician Concepts	Evaluate and manage injuries to soft tissue	3.7 4	3.66	7.40	13.7 0	2	0	1	6	53	2	0	2	9	49
XIII. Team Physician Concepts	Perform and interpret neurologic examination	3.7 7	3.59	7.36	13.5 5	2	0	1	4	55	2	2	3	5	49

IX. Evaluation And Management Of Soft Tissue	Understand soft tissue healing	3.6 7	3.62	7.30	13.3 0	2	0	2	8	49	1	0	2	15	43
II. Rehabilitation Concepts and their Application to Athletes	Demonstrate and recommend therapeutic stretches	3.6 8	3.58	7.26	13.1 7	2	1	0	9	50	2	1	2	11	46
II. Rehabilitation Concepts and their Application to Athletes	Demonstrate and recommend range of motion exercises	3.6 8	3.56	7.24	13.1 1	1	1	1	11	48	1	1	5	10	45
III. Sport Specific Biomechanics	Evaluate upper extremity biomechanics	3.7 1	3.53	7.24	13.1 0	2	0	2	6	52	1	1	4	14	42
III. Sport Specific Biomechanics	Evaluate lower extremity biomechanics	3.7 0	3.52	7.23	13.0 6	2	0	2	6	51	1	2	3	13	42

IX. Evaluation And Management Of Soft Tissue	Understand muscle imbalance(s)	3.7 1	3.52	7.23	13.0 4	1	1	3	5	52	1	2	6	8	45
IX. Evaluation And Management Of Soft Tissue	Apply manual soft tissue mobilization	3.6 5	3.52	7.16	12.8 2	2	0	3	8	49	3	1	1	13	44
IX. Evaluation And Management Of Soft Tissue	4.Understand overuse injuries	3.7 1	3.45	7.16	12.8 0	2	0	2	6	52	1	1	7	13	40
XIII. Team Physician Concepts	Evaluate and manage injuries to the upper extremity	3.7 3	3.40	7.13	12.6 8	2	0	3	3	54	2	1	7	12	40
IX. Evaluation And Management Of Soft Tissue	3.Differentiate between acute injury and chronic injury	3.6 4	3.48	7.11	12.6 5	2	0	4	6	49	2	2	4	10	43
XIII. Team Physician Concepts	Evaluate and manage injuries to the lower extremity	3.7 3	3.39	7.11	12.6 2	2	0	3	3	54	3	1	6	11	41
IX. Evaluation And Management Of Soft Tissue	Apply differential diagnosis of tendinopathy vs. muscular pathology	3.5 9	3.51	7.10	12.6 0	2	0	3	11	45	1	2	5	10	43

II. Rehabilitation Concepts and their Application to Athletes	Design rehabilitation programs	3.6 0	3.50	7.10	12.5 9	1	1	4	10	46	0	3	6	10	43
XI. Emergency Procedures	Ability to create and maintain medical record documentation	3.6 5	3.41	7.05	12.4 3	2	1	3	5	51	4	2	5	4	46
II. Rehabilitation Concepts and their Application to Athletes	Implement rehabilitation programs	3.6 1	3.43	7.04	12.3 8	1	1	2	13	45	0	4	7	9	41
II. Rehabilitation Concepts and their Application to Athletes	Understand specific injury healing time frames	3.6 0	3.29	6.89	11.8 3	2	0	4	9	47	2	3	5	17	35
XV. Concussion	Perform focused physical examination	3.6 9	3.19	6.89	11.8 0	2	1	1	6	52	4	6	5	6	41
XIII. Team Physician Concepts	Understand and apply the standard of care in sports medicine	3.5 8	3.26	6.84	11.6 7	2	0	5	8	47	5	4	2	10	41
XV. Concussion	Perform focused neurological examination	3.6 6	3.18	6.84	11.6 3	2	1	2	6	51	4	6	5	7	40
II. Rehabilitation Concepts and their Application to Athletes	Evaluate, manage and apply return-to-play criteria for head, trunk and spinal injuries	3.6 9	3.13	6.82	11.5 6	3	0	1	5	53	3	4	10	10	35

XV. Concussion	Perform focused history	3.7 1	3.11	6.82	11.5 5	2	1	1	5	53	6	4	7	5	40
X. Special Populations in Sport	Understand the role of strength and conditioning in rehabilitation and prevention of injury in females	3.6 6	3.11	6.77	11.4 0	1	1	2	10	48	1	5	9	18	29
XV. Concussion	Perform detailed physical examination	3.7 1	3.06	6.77	11.3 7	2	0	2	6	52	3	8	7	8	36
XV. Concussion	Develop appropriate treatment plan, including appropriate referrals	3.7 1	3.05	6.76	11.3 1	2	0	2	6	52	4	6	8	9	35
X. Special Populations in Sport	Understand musculoskeletal differences in various age groups	3.6 3	3.11	6.74	11.3 0	1	1	3	10	47	2	3	11	16	30
II. Rehabilitation Concepts and their Application to Athletes	Evaluate, manage and apply return-to-play criteria for extremity injuries	3.6 3	3.10	6.73	11.2 4	2	1	2	8	49	4	2	10	14	32
II. Rehabilitation Concepts and their Application to Athletes	Evaluate proprioception	3.5 3	3.18	6.71	11.2 2	0	3	4	12	43	1	2	15	11	33

XV. Concussion	Perform detailed history	3.6 9	3.03	6.73	11.2 0	2	1	1	6	52	3	8	9	6	36
XV. Concussion	Perform detailed neurological examination	3.7 1	3.02	6.73	11.1 9	2	0	2	6	52	3	9	7	8	35
VIII. Advanced Principles of Joint Manipulation	Identifying different types of motion abnormalities	3.4 8	3.21	6.69	11.1 8	2	3	1	13	43	2	5	5	16	34
V. Functional and Supportive Taping, Bracing and Splinting	Taping, bracing or supporting techniques for the extremities	3.6 1	3.10	6.70	11.1 7	2	0	4	8	47	3	4	8	15	31
IX. Evaluation And Management Of Soft Tissue	Apply instrument-assisted soft tissue mobilization	3.5 3	3.16	6.69	11.1 7	1	2	5	9	45	2	6	5	16	33
XIII. Team Physician Concepts	Evaluate and manage spine injuries and disorders	3.7 1	3.00	6.71	11.1 3	2	0	3	4	53	3	8	8	10	33
X. Special Populations in Sport	Recognize common areas of injury in female athletes	3.6 1	3.06	6.68	11.0 7	1	1	3	11	46	1	4	10	22	25
X. Special Populations in Sport	Understand the benefits and risks of organized sports	3.5 5	3.10	6.65	10.9 9	1	1	3	15	42	3	7	4	15	33

	participation for all populations														
II. Rehabilitation Concepts and their Application to Athletes	Perform and analyze functional movement	3.4 4	3.16	6.60	10.8 7	2	1	6	12	41	2	3	12	10	34
I. Exercise Physiology	Utilize and relate mechanical influences on muscle function	3.4 2	3.18	6.60	10.8 6	2	3	3	13	41	3	5	4	16	34
I. Exercise Physiology	Understand the response of muscle to various types of exercise	3.4 5	3.15	6.60	10.8 6	0	2	5	18	37	0	4	10	21	27
V. Functional and Supportive Taping, Bracing and Splinting	Evaluation of injury mechanics for selection of supportive taping, bracing or splinting	3.6 0	3.02	6.61	10.8 5	0	2	3	13	44	2	5	10	18	27
IX. Evaluation And Management Of Soft Tissue	Understand contusion injuries	3.6 0	3.02	6.61	10.8 5	1	2	2	11	46	4	2	10	19	27
XIII. Team Physician Concepts	Evaluate and manage injuries to peripheral nerves	3.7 1	2.90	6.61	10.7 7	2	0	2	6	52	2	6	14	14	26

XI. Emergency Procedures	Knowledge of informed consent in sport	3.5 5	2.98	6.53	10.5 9	2	2	4	6	48	7	4	8	7	36
I. Exercise Physiology	Understand the physiological changes associated with exercise	3.4 8	3.03	6.51	10.5 4	0	3	5	13	40	1	4	13	18	26
IX. Evaluation And Management Of Soft Tissue	Determine excessive load	3.4 7	3.03	6.50	10.5 2	1	1	6	14	40	2	4	13	14	29
I. Exercise Physiology	Understand the differences in muscle response to each of the following types of exercises: concentric, eccentric, isometric	3.3 9	3.10	6.48	10.4 9	1	3	6	13	39	0	6	14	10	32
XV. Concussion	Develop and implement appropriate Return-to-Play protocol	3.6 8	2.81	6.48	10.3 2	2	0	2	8	50	3	10	10	12	27
X. Special Populations in Sport	Recognize the physiological characteristics for pediatric and adolescent age groups	3.5 1	2.94	6.44	10.3 0	2	1	4	11	43	4	6	9	14	29

X. Special Populations in Sport	Recognize age-specific concerns in young athletes	3.5 2	2.89	6.40	10.1 5	2	1	5	9	45	2	5	17	12	26
X. Special Populations in Sport	Screen health history, menstrual history, diet history and exercise history for risk factors	3.6 1	2.77	6.39	10.0 2	0	3	0	15	44	3	9	11	15	24
X. Special Populations in Sport	Understand the effects of exercise in the pediatric and adolescent athlete	3.5 5	2.81	6.35	9.96	1	1	5	11	44	2	7	16	13	24
XV. Concussion	Knowledge of baseline assessment tools	3.6 0	2.76	6.35	9.92	2	1	3	8	48	5	7	12	12	26
III. Sport Specific Biomechanics	Interpret ergonomic efficiency of sports specific actions (e.g. golf swing, baseball bat swing, throwing)	3.4 5	2.87	6.32	9.91	0	2	7	14	39	2	7	13	15	25
XV. Concussion	Develop and implement appropriate Return-to-Play protocol	3.6 5	2.69	6.34	9.82	2	1	3	5	51	6	7	12	12	25

III. Sport Specific Biomechanics	Interpret ergonomic efficiency of gait	3.3 4	2.90	6.25	9.71	0	3	7	17	34	2	5	15	15	25
VI. Biopsychosocial Considerations	Identify the symptoms and manage overreaching and overtraining	3.6 1	2.65	6.26	9.56	0	3	3	9	47	3	12	9	18	20
X. Special Populations in Sport	Understand the strength training recommendations and safety precautions for pediatric and adolescent age groups	3.4 8	2.74	6.23	9.55	2	2	3	12	43	2	7	17	15	21
XV. Concussion	Understand and utilize concussion assessment tools	3.6 8	2.60	6.27	9.55	2	0	2	8	50	4	8	20	7	23
XI. Emergency Procedures	Knowledge of protected health information rules	3.4 5	2.75	6.21	9.51	3	1	6	7	45	11	4	8	4	34
XV. Concussion	Understand and utilize concussion assessment tools	3.6 5	2.58	6.23	9.41	2	1	3	5	51	7	8	12	12	23

XIII. Team Physician Concepts	Evaluate and manage injuries to the pelvis	3.60	2.61	6.21	9.40	2	0	4	9	47	4	7	17	15	19
V. Functional and Supportive Taping, Bracing and Splinting	Communicate with others regarding taping, bracing or supports	3.39	2.77	6.16	9.40	1	4	5	12	40	6	7	7	17	25
XV. Concussion	Knowledge of baseline assessment tools	3.57	2.63	6.20	9.40	2	2	1	10	46	6	8	16	5	27
X. Special Populations in Sport	10. Evaluate, manage and apply return to play criteria for concussion injury in the adolescent population	3.68	2.55	6.23	9.37	2	1	3	3	53	9	7	11	11	24
IX. Evaluation And Management Of Soft Tissue	Recommend and implement thermal modalities (heat, ice, contrast)	3.24	2.89	6.13	9.36	4	3	4	14	37	5	6	9	13	29
X. Special Populations in Sport	Evaluate and manage of arthritis	3.32	2.79	6.11	9.27	0	5	6	15	36	4	9	10	12	27

XIII. Team Physician Concepts	Understand and apply the concepts of the ACBSP Position stands	3.3 7	2.74	6.11	9.23	2	2	8	9	41	8	6	7	13	27
XI. Emergency Procedures	Recognize and mitigate areas of sports medicine liability (negligence, patient abandonment, athlete physician relationship, etc)	3.5 3	2.60	6.13	9.17	2	3	3	6	48	12	5	9	6	30
IX. Evaluation And Management Of Soft Tissue	Understand macroscopic vs. microscopic injury	3.2 5	2.79	6.03	9.05	0	5	9	13	34	3	8	15	8	27
XI. Emergency Procedures	Understand and utilize personal protective equipment	3.4 4	2.63	6.06	9.03	2	2	5	11	42	8	11	5	10	28
XIV. Anti-doping and Pharmacology in Sports Medicine	Understand over-the-counter medications	3.3 7	2.62	5.99	8.84	2	2	9	7	42	7	7	12	11	24
V. Functional and Supportive Taping, Bracing and Splinting	Taping, bracing or supporting techniques for the trunk and spine	3.3 8	2.59	5.97	8.75	1	4	4	14	38	6	10	10	12	23

XV. Concussion	Evaluate and manage post-concussion syndrome	3.6 3	2.41	6.04	8.75	2	1	2	8	49	7	9	14	14	17
XII. Sports Medicine Research	Read publications in sports medicine	3.2 9	2.61	5.90	8.60	1	3	7	17	34	2	10	16	16	18
XVII. Preparticipation Exam	Apply the standards defined by the ACBSP Position Stand on the preparticipation exam	3.4 1	2.52	5.92	8.58	3	1	7	6	42	11	8	3	12	24
II. Rehabilitation Concepts and their Application to Athletes	Apply and monitor strength and conditioning programs	3.2 3	2.66	5.88	8.57	2	1	8	21	30	2	9	16	15	19
XI. Emergency Procedures	Knowledge of team physician roles and responsibilities	3.6 5	2.34	5.99	8.55	1	2	2	8	49	14	6	11	5	25
I. Exercise Physiology	Understand the changes in vital signs with exercise	3.2 7	2.61	5.88	8.53	1	2	11	13	35	4	10	12	15	20
V. Functional and Supportive Taping, Bracing and Splinting	Recommend the selection of different types of athletic footwear	3.1 9	2.66	5.85	8.50	0	3	13	15	31	5	8	13	13	23

IV. Diagnostics in Sports Medicine	Utilize magnetic resonance imaging	3.3 9	2.50	5.89	8.47	1	3	6	13	39	5	7	17	18	15
X. Special Populations in Sport	Evaluate and manage fractures and awareness of common locations of fractures in pediatric athletes	3.5 3	2.38	5.91	8.40	4	2	0	7	49	9	5	19	10	18
XVII. Preparticipation Exam	Perform the preparticipation history	3.4 9	2.39	5.88	8.34	3	1	4	7	44	11	9	9	6	24
V. Functional and Supportive Taping, Bracing and Splinting	Understanding the influence of different shoes on biomechanics	3.2 3	2.56	5.79	8.27	1	1	10	21	29	3	10	14	19	16
XII. Sports Medicine Research	Understand research terminology	3.2 3	2.55	5.77	8.22	3	2	8	14	35	4	9	18	11	20
XV. Concussion	Recognize and triage emergent symptoms	3.6 6	2.24	5.90	8.21	2	1	2	6	51	11	9	17	4	21
XII. Sports Medicine Research	Translate research findings to clinical practice	3.3 7	2.41	5.78	8.12	1	1	7	18	35	6	8	15	19	13
X. Special Populations in Sport	9. Evaluate, manage and apply return to play criteria for concussion injury in the pediatric population	3.6 5	2.21	5.85	8.05	3	1	3	1	54	12	13	8	8	21

X. Special Populations in Sport	Evaluate and manage osteochondral and growth plate injury	3.5 6	2.23	5.79	7.93	2	2	1	11	46	7	13	15	13	14
VI. Biopsychosocial Considerations	Develop coping skills	3.3 2	2.39	5.71	7.93	2	2	6	16	36	6	8	16	20	12
X. Special Populations in Sport	Identify the most common sports-specific conditions	3.4 0	2.31	5.71	7.85	2	2	5	13	40	14	8	8	9	23
XI. Emergency Procedures	Apply control plans and preventive measures	3.3 2	2.32	5.65	7.72	1	4	6	14	37	12	10	9	8	23
IX. Evaluation And Management Of Soft Tissue	Understand the chemistry of injury	3.1 5	2.44	5.59	7.69	1	2	14	14	30	2	14	16	13	16
X. Special Populations in Sport	Identify the most common types of injuries	3.4 2	2.24	5.66	7.65	2	1	5	15	39	16	8	5	6	24
X. Special Populations in Sport	Understand the importance of strength training in the geriatric athlete	3.3 9	2.26	5.65	7.65	2	2	5	14	39	10	10	13	12	17
XVII. Preparticipation Exam	Perform the preparticipation physical examination	3.4 2	2.21	5.63	7.56	4	1	5	5	44	15	6	10	6	21
XI. Emergency Procedures	Manage post-exposure follow-up and record keeping	3.3 2	2.26	5.58	7.50	2	5	4	11	40	13	10	10	6	23
XVI. Nutrition	Understand general macronutrient and micronutrient needs of the athlete	3.2 3	2.32	5.55	7.49	2	1	9	17	31	3	12	20	13	12

VI. Biopsychosocial Considerations	Assess and manage psychological stress in athletes	3.2 4	2.31	5.55	7.48	2	3	8	14	35	6	11	17	14	14
X. Special Populations in Sport	Understand proper utilization of cardiovascular exercise	3.3 9	2.18	5.58	7.41	1	3	4	16	37	6	11	21	10	12
XVII. Preparticipation Exam	Perform the preparticipation neurological examination	3.4 1	2.14	5.54	7.28	4	2	4	5	44	16	7	10	5	21
XVI. Nutrition	Understand sport-specific macronutrient and micronutrient needs of the athlete	3.2 6	2.23	5.49	7.27	1	1	12	14	33	4	13	20	13	11
X. Special Populations in Sport	Prescribe exercise for geriatrics	3.3 1	2.19	5.50	7.25	3	3	5	12	39	12	10	9	16	15
II. Rehabilitation Concepts and their Application to Athletes	Evaluate, manage and apply return-to-play criteria for illnesses	3.2 6	2.23	5.48	7.25	1	4	7	16	34	7	14	12	16	13
X. Special Populations in Sport	Evaluate and manage comorbidities in sport	3.2 7	2.21	5.48	7.23	2	3	7	14	36	8	10	17	15	12
XVI. Nutrition	Understand sport specific macronutrient and micronutrient needs of the athlete	3.2 6	2.21	5.48	7.22	1	2	11	13	34	5	12	20	13	11
XI. Emergency Procedures	Knowledge of Good Samaritan laws	3.5 5	2.03	5.58	7.21	2	1	5	7	47	18	7	11	7	19

II. Rehabilitation Concepts and their Application to Athletes	Apply strength and conditioning testing protocols	3.0 3	2.37	5.40	7.19	1	4	11	22	24	3	13	19	12	15
IV. Diagnostics in Sports Medicine	Utilize radiographs	3.2 6	2.18	5.44	7.09	0	5	9	13	35	4	13	22	14	9
I. Exercise Physiology	Understand acclimatization to heat, humidity and altitude	3.1 5	2.23	5.37	7.00	2	5	7	16	32	7	13	14	15	13
XIII. Team Physician Concepts	Evaluate and manage head injuries, excluding concussion (acute subdural hematoma, epidural hematoma, axonal injury, etc)	3.7 1	1.87	5.58	6.93	2	1	2	3	54	14	15	12	5	15
X. Special Populations in Sport	Manage of specific geriatric injuries and conditions	3.1 8	2.18	5.35	6.92	2	3	10	14	33	12	7	14	16	13
XIV. Anti-doping and Pharmacology in Sports Medicine	Evaluate supplements for benefits and risks	3.1 3	2.21	5.34	6.91	2	3	11	15	31	9	10	17	11	15
XIII. Team Physician Concepts	Evaluate and manage injuries to the thorax and abdomen	3.5 3	1.94	5.47	6.84	2	0	5	11	44	9	17	18	5	13
XVI. Nutrition	Understand and implement appropriate supplementation	3.1 1	2.18	5.30	6.79	1	4	12	14	30	5	17	13	14	12

XVII. Preparticipation Exam	Interpret preparticipation examination findings and make clearance/referral decisions	3.4 1	1.97	5.37	6.70	3	1	6	8	41	20	5	9	7	18
XVI. Nutrition	Manage dietary concerns and restrictions	3.1 3	2.13	5.27	6.68	2	2	11	16	29	7	12	19	10	12
XIII. Team Physician Concepts	Evaluate and manage fluid imbalance	3.4 0	1.92	5.32	6.53	2	3	4	12	41	8	20	12	13	9
I. Exercise Physiology	Understand cardiovascular and metabolic response to various types of exercise	2.8 9	2.18	5.06	6.29	0	5	16	22	19	3	17	18	14	10
XIII. Team Physician Concepts	Evaluate and manage injuries to the chest	3.5 3	1.77	5.31	6.27	2	0	6	9	45	12	16	18	6	10
VII. Sports Equipment and Technology	Understand and apply pulse oximetry	3.0 6	2.03	5.10	6.23	4	4	6	18	30	11	16	10	10	15
X. Special Populations in Sport	Evaluate and manage the pregnant athlete	3.3 5	1.85	5.21	6.22	0	3	7	17	35	11	14	19	9	9
XIII. Team Physician Concepts	Identify and apply precautionary measure	3.2 9	1.87	5.16	6.15	1	3	11	9	38	13	15	15	3	15
XII. Sports Medicine Research	Critically appraise scientific literature	3.1 0	1.98	5.08	6.14	2	3	11	17	29	10	13	19	6	13

XI. Emergency Procedures	Perform and interpret the secondary survey	3.5 4	1.73	5.27	6.11	3	1	3	7	47	20	12	10	5	15
XI. Emergency Procedures	Perform and interpret the primary survey	3.6 0	1.68	5.27	6.03	3	0	2	9	48	20	12	11	6	13
XI. Emergency Procedures	Knowledge of role in pandemic events	3.1 8	1.85	5.03	5.89	5	4	5	9	39	17	13	10	6	16
XIV. Anti-doping and Pharmacology in Sports Medicine	Evaluate medications for benefits and risks	3.1 8	1.80	4.98	5.73	2	4	8	15	33	10	19	14	9	9
IX. Evaluation And Management Of Soft Tissue	Recommend and implement physiotherapies and electrotherapies (TENS, EMS, Galvanic, Iontophoresis, IF, Low volt, High volt, Microcurrent)	2.8 4	1.98	4.82	5.63	6	4	9	17	25	19	7	9	8	18
X. Special Populations in Sport	Evaluate and manage asthma in sport	3.1 1	1.81	4.92	5.62	2	6	5	19	30	12	13	18	13	6
XII. Sports Medicine Research	Identify research design	2.9 2	1.92	4.84	5.60	5	4	9	17	27	9	19	15	6	13
XIV. Anti-doping and Pharmacology in Sports Medicine	Understand anti-doping rules and regulations	3.2 3	1.73	4.95	5.57	4	4	6	8	40	18	14	12	3	15

VII. Sports Equipment and Technology	Select and stock sideline bags	2.8 7	1.92	4.79	5.51	7	5	6	15	29	18	6	14	11	13
X. Special Populations in Sport	Counsel athletes about postmenopausal exercise	3.0 5	1.79	4.84	5.46	1	3	16	14	28	11	16	19	7	9
VI. Biopsychosocial Considerations	Communicate with psychology/psychiatry professionals regarding athletes and sporting activities	2.9 8	1.82	4.81	5.44	3	4	11	17	27	16	11	15	8	12
XI. Emergency Procedures	10. Evaluate and manage on-the-field/sideline emergencies (i.e. cardiac arrest, head trauma, spinal trauma, shock, bleeding, fractures/dislocation, and other first responder duties, etc)	3.6 6	1.48	5.15	5.43	2	1	2	6	51	24	10	12	6	10
XI. Emergency Procedures	Create and implement emergency action plans	3.5 0	1.48	4.98	5.19	3	2	2	9	46	22	15	9	5	11
XIII. Team Physician Concepts	Perform and interpret neuropsychological testing	3.2 9	1.55	4.84	5.09	2	4	7	10	39	20	16	7	10	9

XIII. Team Physician Concepts	Manage emergent heat, cold and environmental illnesses	3.3 2	1.52	4.84	5.04	2	2	8	12	38	18	19	10	5	10
V. Functional and Supportive Taping, Bracing and Splinting	Select and apply orthotics	2.8 2	1.76	4.58	4.96	1	9	14	14	24	15	14	13	11	9
X. Special Populations in Sport	Evaluate and manage bone mineralization disorders	3.0 6	1.60	4.66	4.89	2	4	10	18	28	12	20	15	11	4
XIII. Team Physician Concepts	Evaluate and manage skin injuries and infections	3.3 4	1.45	4.79	4.85	1	3	8	12	38	16	18	16	8	4
XVII. Preparticipation Exam	Perform a 12-point AHA cardiac examination screening	3.1 4	1.54	4.68	4.84	5	3	6	10	35	23	9	10	6	11
VI. Biopsychosocial Considerations	Recognize forms of abuse in athletes	3.3 7	1.42	4.79	4.78	2	2	9	7	42	16	17	20	5	4
X. Special Populations in Sport	Identify the signs of the Relative Energy Deficiency in Sport (RED-S)	3.1 8	1.50	4.68	4.77	3	3	10	10	36	18	18	11	7	8
XI. Emergency Procedures	Utilize equipment to evaluate sporting environments	2.9 0	1.61	4.52	4.68	5	5	12	9	31	24	6	13	8	11
XI. Emergency Procedures	9. Select and apply extremity immobilization	3.5 2	1.33	4.84	4.67	3	0	4	10	45	19	20	11	5	6

VI. Biopsychosocial Considerations	Recognize signs of substance abuse	3.27	1.42	4.69	4.65	3	3	6	12	38	11	29	11	7	4
XI. Emergency Procedures	Perform and interpret the Glasgow Coma Scale	3.50	1.32	4.82	4.63	2	3	3	8	46	22	18	9	6	7
VII. Sports Equipment and Technology	Understand materials and their mechanical properties	2.85	1.61	4.47	4.60	2	5	17	14	24	17	11	18	11	5
VII. Sports Equipment and Technology	Fit crutches	2.90	1.56	4.47	4.54	4	4	11	18	25	19	15	13	4	11
IX. Evaluation And Management Of Soft Tissue	Recommend and implement laser and light therapies	2.72	1.66	4.38	4.51	4	6	14	16	21	24	7	9	8	13
X. Special Populations in Sport	Evaluate and manage common injuries in Ultra-Sports	3.05	1.48	4.52	4.50	1	5	14	12	30	20	14	12	8	7
IX. Evaluation And Management Of Soft Tissue	Apply sports event massage	2.74	1.64	4.38	4.49	7	5	9	17	24	23	8	8	12	10
VI. Biopsychosocial Considerations	Identify and manage eating disorders	3.11	1.42	4.53	4.42	4	3	10	10	35	15	19	16	11	1
XI. Emergency Procedures	Knowledge of potential support role in catastrophic	3.24	1.35	4.60	4.39	2	6	6	9	39	26	13	9	3	11
IV. Diagnostics in Sports Medicine	Utilize ultrasonography	2.79	1.56	4.35	4.37	4	8	11	13	26	13	18	18	9	4

X. Special Populations in Sport	Identify cardiac concerns in the geriatric athlete	3.0 5	1.42	4.47	4.32	4	7	3	16	32	20	15	10	10	5
X. Special Populations in Sport	Evaluate and manage connective tissue diseases in sport (e.g. Marfan Syndrome)	3.2 6	1.32	4.58	4.31	3	3	4	17	35	18	21	13	5	5
VII. Sports Equipment and Technology	Select proper equipment for specific body regions and sport-specific equipment	2.8 2	1.50	4.32	4.23	3	8	11	15	25	18	17	12	8	7
VI. Biopsychosocial Considerations	Recognizing and understanding opioid misuse and opioid use disorder (OUD)	3.1 8	1.32	4.50	4.21	3	4	7	12	35	18	22	10	8	4
IX. Evaluation And Management Of Soft Tissue	Recommend and implement therapeutic ultrasound and phonophoresis	2.5 2	1.63	4.15	4.10	8	7	12	15	20	22	10	12	5	13
VI. Biopsychosocial Considerations	Intervention and reporting of abuse in athletes	3.3 9	1.19	4.58	4.04	2	3	7	7	43	23	17	13	5	4
IV. Diagnostics in Sports Medicine	Evaluate and manage chronic exertional compartment syndrome	2.9 4	1.37	4.31	4.02	1	6	13	18	24	18	16	17	9	2

X. Special Populations in Sport	Evaluate and manage diabetes in sport	3.00	1.34	4.34	4.02	3	5	7	21	26	19	17	15	8	3
X. Special Populations in Sport	Understand the classifications of different athletic groupings of the adaptive sport athlete (e.g. blind, deaf, amputee, wheelchair, Paralympic, Special Olympics, etc)	2.84	1.40	4.24	3.98	7	2	13	12	28	26	11	10	4	11
X. Special Populations in Sport	Understand organizations and groups of the adaptive sport athlete	2.76	1.42	4.18	3.91	6	7	9	14	26	25	13	8	5	11
IV. Diagnostics in Sports Medicine	Order and interpret blood chemistry studies for various chemical components (Glucose, LDH, AST, etc)	2.73	1.44	4.16	3.91	5	4	16	15	22	23	9	16	8	6
XIII. Team Physician Concepts	Prevent and manage environmental illness	3.02	1.29	4.31	3.89	1	5	14	14	28	20	20	9	10	3
X. Special Populations in Sport	Perform geriatric preparticipation evaluation	2.90	1.32	4.23	3.84	3	10	6	14	29	23	15	10	9	5

I. Exercise Physiology	Measure and interpret performance labs	2.5 1	1.52	4.02	3.80	4	7	18	18	14	13	20	18	6	5
IV. Diagnostics in Sports Medicine	Order and interpret hematology studies (CBC/CMP, etc)	2.7 7	1.35	4.13	3.76	7	1	18	9	27	24	8	19	6	5
IV. Diagnostics in Sports Medicine	Utilize computed tomography	2.8 2	1.32	4.15	3.73	2	9	14	10	27	14	25	14	7	2
XI. Emergency Procedures	Understand use of oxygen tanks	3.3 5	1.10	4.45	3.68	4	1	6	9	42	29	17	6	1	9
IV. Diagnostics in Sports Medicine	Utilize arthrography	2.7 4	1.32	4.06	3.63	5	7	12	13	25	16	21	16	7	2
VII. Sports Equipment and Technology	Selection of heart monitoring devices	2.5 6	1.40	3.97	3.60	6	9	14	10	23	18	19	14	4	7
XI. Emergency Procedures	Select and apply hard cervical collars	3.5 3	1.02	4.55	3.59	3	1	5	4	49	27	22	5	1	7
IV. Diagnostics in Sports Medicine	Evaluate and manage acute exertional compartment syndrome	2.9 2	1.23	4.15	3.58	2	6	12	17	25	22	16	14	8	2
X. Special Populations in Sport	Understand issues of societal acceptability, gender identification, and psychological aspects of competition and their effects upon performance and compliance, etc..	2.7 4	1.29	4.03	3.54	6	6	12	12	26	25	15	8	7	7

X. Special Populations in Sport	Understand the mechanics of wheelchairs and assistive devices	2.7 1	1.24	3.95	3.37	4	7	14	15	22	26	15	9	4	8
VII. Sports Equipment and Technology	Understanding standards for testing and certification of equipment	2.6 1	1.25	3.86	3.26	5	7	15	15	20	25	13	10	9	4
XI. Emergency Procedures	Select and apply airway management devices	3.4 2	0.95	4.37	3.25	5	0	4	8	45	31	15	8	1	6
XI. Emergency Procedures	Select and apply spinal immobilization (backboards, etc)	3.5 3	0.92	4.45	3.25	3	1	4	6	48	32	17	6	0	7
X. Special Populations in Sport	Perform fitness assessment in adaptive sport athletes	2.7 5	1.11	3.87	3.07	5	9	6	17	24	28	17	6	4	7
IV. Diagnostics in Sports Medicine	Order and interpret urine studies (dipstick, SG, etc)	2.5 3	1.18	3.71	2.99	7	8	12	15	20	26	15	9	5	6
X. Special Populations in Sport	Perform specialized preparticipation assessments	2.7 2	1.10	3.82	2.98	4	10	11	10	26	31	12	8	4	7
XII. Sports Medicine Research	Write a paper for peer-review	2.7 4	0.97	3.71	2.65	9	2	11	14	26	25	26	4	2	5
IV. Diagnostics in Sports Medicine	Utilize motor nerve conduction (NCV) study	2.5 0	1.03	3.53	2.58	5	9	15	16	17	22	20	17	2	1
XIII. Team Physician Concepts	Evaluate and manage injuries to the genitalia	3.1 9	0.77	3.97	2.47	4	4	4	14	36	32	20	4	4	2

IV. Diagnostics in Sports Medicine	Utilize electromyography (EMG)	2.4 2	0.97	3.39	2.34	7	7	17	15	16	24	17	19	0	1
IV. Diagnostics in Sports Medicine	Utilize echocardiography & electrocardiography	2.3 5	0.82	3.17	1.93	7	11	15	11	18	34	10	13	2	2
IV. Diagnostics in Sports Medicine	Utilize nuclear medicine bone scan	2.2 7	0.81	3.08	1.83	9	11	13	12	17	32	14	13	2	1
IV. Diagnostics in Sports Medicine	Utilize pulmonary function testing	2.1 5	0.77	2.92	1.66	9	13	16	8	16	30	19	11	1	1
IV. Diagnostics in Sports Medicine	Utilize angiography	2.1 8	0.75	2.93	1.64	10	9	17	10	15	32	16	11	0	2