



**MEDICAL SCIENCE LIAISON
BOARD CERTIFICATION (MSL-BC®)**

Candidate Handbook





Table of Contents

What Is A Certification?.....	2
Benefits of Certification.....	2
Certificate vs. Certification - How Are They Different?.....	2
How the MSL-BC® Exam was Developed.....	4
Job Task Analysis Meeting - March 2017.....	4
Job Task Analysis Survey - December 2017.....	5
Exam Question Writing and Review Meetings - February 2018.....	5
Exam Question Webinar Review - March 2018.....	5
Pilot Exam - July 2019 to November 2019.....	5
Standard Setting Study / “Cut Score” - November 2019.....	5
Certification Mark Use.....	6
Eligibility Criteria.....	6
Eligibility Appeal.....	7
Examination Fees.....	7
Examination Application Checklist.....	8
Special Accommodations.....	9
Examination Schedule.....	9
Required Identification.....	10
Online Testing Center Rules.....	10
Details About the MSL-BC® Exam.....	11
Testing Regulations and Procedures for the MSL-BC® Exam.....	11
If Questions Arise During the Exam.....	12
Withdrawal Policy/Requesting a Refund.....	12
Step One.....	12
Step Two.....	12
Rescheduling an Exam.....	13
No Show/Late Arrival.....	13
Emergencies.....	13
MSL-BC® Examination Detailed Content Outline.....	13
Using the MSL-BC® Examination Detailed Content Outline.....	14
Medical Science Liaison - Board Certification (MSL-BC®) Examination Detailed Content Outline.....	15
References for the (MSL-BC®) Examination.....	21
Preparing for the Exam.....	22
References.....	22
Passing Score.....	23
Invalidated Scores.....	24
Retake Policy.....	24
Recertification.....	24
Code of Ethics for Medical Science Liaisons and MSL Leaders.....	25
Basic Beliefs.....	25
Code of Ethics.....	25
Disciplinary Procedures.....	26
Candidate Application and Acknowledgement Statement.....	27
The Acknowledgement Statement.....	27
Appendix A: Alternative and Equivalent titles for <i>Medical Science Liaison</i>	29



What is a Certification?

Certification is defined as a voluntary process whereby an individual may earn a time-limited credential after validation of their ability to meet predetermined standardized criteria for their profession.

Certification establishes minimum competency standards in a set specialty and offers formal recognition of specialized knowledge and skills for those who have met these standards.

The Medical Science Liaison-Board Certification exam (MSL-BC®) is the first-ever board certification for the Medical Science Liaison profession and is an effort to establish industry recognized standards for the MSL profession. The Medical Science Liaison Society is dedicated to the validation, through certification, of a specialized body of knowledge for individuals working as a **Medical Science Liaison (or equivalent title) or leading a Medical Science Liaison team.**

Professionals working as Medical Science Liaisons (MSL) or managing a team of MSLs can demonstrate a baseline of specialized competency, skill and/or knowledge in the field by meeting criteria and passing the examination offered by the Medical Science Liaison Society.

Benefits of Certification

Certification offers several potential benefits and opportunities for the professional, employer and health care providers (HCPs) and may include:

- Creating a standard for MSL professionals
- Identifying professional achievement
- Offering validation of skills and knowledge
- Increasing professional credibility
- Assuring employers and HCPs that certified individuals have met rigorous requirements
- Higher salaries for those certified
- Employment advantage over non-certified job applicants

Certificate vs. Certification - How Are They Different?

A certification is often confused with a certificate, which are often promoted as certification. However, there are key differences between the two. The primary purpose of a **certificate** program is to simply provide training.

In contrast, the primary purpose of a **certification** is to assess and evaluate one's acquired knowledge, skills, and competencies related to a particular role. Another key difference is that after an individual passes a **certification**, they will be awarded a professional credential that will be recognized and used to highlight their certified status. A credential is awarded following an advanced level examination which follows rigorous exam development protocols and standards which is psychometrically validated. Furthermore, unlike a certificate program which is typically a one-time training, certifications have routine requirements over time which must be met in order to maintain the credentials.



According to the [Institute for Credentialing Excellence \(ICE\)](#), certificate programs and certification programs are designed to meet different needs. The following table from their website lists the main differences between the two types of programs. The **MSL-BC®** credential is a **Certification** Program as outlined in the right column below:

Certificate Program	Professional Certification Program
PURPOSE: Build capacity and recognition of a specialty area of practice or set of skills	PURPOSE: Recognize professionals who meet established knowledge, skills, or competencies
Provides instruction and training (non-degree granting)	Assesses knowledge, skills, and/or competencies previously acquired
Goal is for participants to acquire specific knowledge, skills, and/or competencies	Goal is to validate the participant's competency through a conformity assessment system
Assessment is used to evaluate mastery of the intended learning outcomes; linked directly to the learning event	Assessment is best used to assure baseline competencies and to differentiate professionals; independent of a specific learning event
Assessment content may be narrower in scope	Assessment content is usually broad in scope
Awards a certificate to recognize mastery of the specific learning outcomes; it is NOT a certificate of attendance or participation, which is awarded to individuals who have attended or participated in a course or training program but did not have to demonstrate mastery of the intended learning outcomes	Awards designations to recognize achievement
To earn accreditation, complies with the <i>ICE 1100 Standard</i> and follows the ACAP application procedures	To earn accreditation, complies with the <i>NCCA Standards for the Accreditation of Certification Programs</i> and follows the NCCA application procedures

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The Medical Science Liaison-Board Certification (MSL-BC®) will require the individual to meet the eligibility requirements, achieve a passing score on the MSL-BC® examination to earn the credential, and complete continuing education to maintain the credential.

How the MSL-BC® Exam was Developed

The Medical Science Liaison-Board Certification (MSL-BC®) was developed after several years of exploration and demands made by the Medical Science Liaison community for a certification that reflects the MSL as a distinct professional with specific skills and knowledge.

The goal of the MSL-BC® is to set industry recognized standards for the MSL profession. To do so, the Medical Science Liaison Society hired one of the top certification industry testing leaders to help launch the program based on international certification standards. A large group of subject matter experts (MSLs and MSL leaders) volunteered and were involved throughout the development process including identifying areas of competency for testing, developing appropriate test questions, and assisting with validation of the exam.

To achieve the MSL-BC® credential, an MSL or MSL Leader must successfully pass the MSL-BC® certification examination which will evaluate one's acquired knowledge, skills, and competencies related to the Medical Science Liaison role. From the beginning we have collaborated with and been supported by numerous MSL leaders from around the world who have volunteered their time and effort to create a comprehensive examination.

During the development of the MSL-BC® exam, it was determined the exam would need to be administered virtually but proctored live due to the fact that in numerous countries there are no Computer Based Testing center locations to take the exam. As a result, to make the MSL-BC® available to all MSLs and MSL leaders globally, the exam is administered virtually.

According to international standards, there are multiple steps to create a valid and credible certification program. Over the last few years the Medical Science Liaison Society and a large number of volunteer MSL leaders have worked diligently to complete each of the necessary steps which consisted of the following:

Job Task Analysis Meeting - March 2017

The first step of the certification development process was conducting a "Job Task Analysis" (JTA), which was led by a psychometrician and consisted of a live, in-person, 2-day meeting with multiple MSL leaders and took place in Denver, Colorado on March 24-25, 2017. The objective of the meeting was to list tasks associated with the MSL profession and to create a blueprint for the certification examination that professionals must pass in order to become certified. The purpose of the JTA was to create the content outline for the MSL certification and to identify the knowledge, skills, and abilities that an MSL should demonstrate regardless of company type, therapeutic area of concentration, or geographic location. The JTA also helped provide the validity of the certification exam. During this 2-day in-person meeting, these subject matter experts created a blueprint for the certification examination that professionals must pass in order to become certified.



Job Task Analysis Survey - December 2017

The next step in the certification development process was to conduct an online survey created to validate the results of the Job Task Analysis (JTA) by asking survey participants to rate the frequency and importance of various activities for Medical Science Liaisons that the JTA volunteer Group had outlined in the blueprint. The online survey was completed by 216 MSL Professionals in 28 countries. The survey was opened in December 2017 and respondents included Medical Science Liaisons and MSL Leaders with a wide range of years of experience, varying levels of education, and represented pharma, biotech, medical device and other healthcare companies. The final results of the survey were reviewed by a psychometrician.

Exam Question Writing and Review Meetings - February 2018

The next step of the certification development involved an in-person Exam Question Writing Meeting where another distinct group of MSL leaders, led by a psychometrician, gathered to write the actual questions used for the MSL-BC® examination. This was immediately followed by a Question Review Meeting where a separate group of MSL Leaders reviewed the exam questions and wrote additional questions, as needed, to fill in areas of the Examination Blueprint. Each of these separate meetings were 3 days in length and took place February 1-6, 2018 in Orlando, FL.

In adherence with international standards for a certification, all MSL leaders volunteered to participate.

Exam Question Webinar Review - March 2018

Following the Exam Question Writing and Review Meetings, a psychometrician led a 3-hour webinar with those in attendance of the Exam Question Writing and Review Meetings to discuss and approve the final MSL-BC® exam questions. During the webinar review, all questions and possible responses were thoroughly reviewed and evaluated by a large group of MSLs and MSL leaders.

Pilot Exam - July 2019 to November 2019

The next step was recruiting a diverse group of MSLs and MSL leaders (who meet the MSL-BC® eligibility requirements) to volunteer and take the MSL-BC® Examination as a pilot study.

The pilot exam was conducted from July 25 - November 1, 2019. A total of 68 MSLs and MSL leaders from 8 countries completed the exam under the same conditions as expected on the official exam. The exam was proctored remotely and live through ProctorU. Participant backgrounds included a wide range of years of experience, varying levels of education, and represented pharma, biotech, medical device and other healthcare companies.

Standard Setting Study / “Cut Score”- November 2019

The final step in launching a certification program is the Standard Setting Study or “cut score”. After all the pilot participants completed the exam, a Modified Angoff Study was conducted to identify a recommended passing score for the MSL-BC® examination. A cut score is the point that sets a predetermined level; it is a process that determines a passing score.



The Standard Setting Study was conducted on November 8, 2019 and led by a psychometrician with a group of MSLs and MSL leaders who had previously participated in either the Item Writing or Item Review Meetings. During the Standard Setting Study, all items on the examination were systematically discussed and evaluated based on the typical minimally qualified candidate which ultimately determined the final passing score.

The MSL-BC® exam has been designed in accordance with testing industry standards for validity and reliability.

Validity is the degree to which the content of the test reflects the knowledge and skills required to perform the duties of an MSL professional in a competent and efficient manner.

Reliability is the accuracy of the test results. That is, the degree to which they are free from measurement errors.

The MSL Society, with the assistance and advice of multiple MSL leaders, has attempted to develop a credential that will recognize accepted levels of expertise for MSL professionals with the goal of improving professional standards in the profession. However, no credentialing program can guarantee professional competence. In addition, given the frequent changes in industry practices and relevant codes and regulations, the MSL Society cannot warrant that the test materials will at *all* times reflect the most current state. The MSL Society welcomes constructive comments and suggestions from the public, the profession and employers.

Certification Mark Use

Medical Science Liaison-Board Certification (MSL-BC®) is a professional certification for **Medical Science Liaisons (or equivalent title) or those leading Medical Science Liaison teams**. The MSL-BC® credential signifies that an individual has demonstrated a baseline of specialized competency, skill and/or knowledge in the field. The exam has been designed to meet stringent certification industry standards and best practices. The Medical Science Liaison Society recognizes individuals who have met all of the certification eligibility criteria, passed the exam, and received notification of certification with the MSL-BC® designation. Use of the MSL-BC® credential by individuals who have not met all the requirements, or who have failed to properly maintain certification in good standing, is prohibited. The MSL-BC® is a registered service mark of the MSL Society and improper or unauthorized use of the credential may result in disciplinary action and/or legal and/or civil action.

Eligibility Criteria

The Medical Science Liaison-Board Certification (MSL-BC®) is designed for professionals that have experience working as a **Medical Science Liaison (or equivalent title) or leading a Medical Science Liaison team**. As a result, experience working as a Medical Science Liaison or MSL leader is required of all certification candidates; those aspiring to break into the MSL profession are **NOT** eligible. All MSLs



and MSL leaders, including international applicants outside of the United States, are encouraged to take the examination if qualified. However, be advised that the exam and many references used to develop it are US based and reflective of US regulations as well as global guidance documents.

Specific eligibility requirements include:

1. Bachelor's degree or higher from a regionally or nationally accredited educational institution. A copy of the candidate's highest degree or transcript **must** be provided at the time of registration.
2. One (1) year of cumulative experience working full-time as a **Medical Science Liaison (or equivalent title) or leading a Medical Science Liaison team**. (see Appendix A for equivalent titles)

Note: This certification is **NOT** intended for sales, marketing, or other non-MSL related functions within a company. All candidates must **legally attest** that they meet all the above requirements, which are subject to verification.

Eligibility Appeal

Individuals have the right to appeal decisions made by the Medical Science Liaison Society regarding certain eligibility requirements for certification. Pass/fail examination scores are not appealable. An individual may submit a written appeal regarding eligibility requirements for certification via email to certification@themsls.org

Examination Fees

Initial Examination Attempt	
Medical Science Liaison Society Member*	\$450.00 USD
Non-Member	\$550.00 USD
Subsequent Examination Attempts (failed exams)	
Medical Science Liaison Society Member*	\$300.00 USD
Non-Member	\$400.00 USD

*MSL Society member discount only applies to "professional level membership"

The application fee must be paid by credit card or PayPal in US Dollars.



Examination Application Checklist

Before you begin the certification application process, be sure to:

1. Read the entire Medical Science Liaison-Board Certification (MSL-BC®) Handbook

The Certification Handbook contains all the information you need to know about the exam and it is important that the document be read in full. You are required to attest to having read this information when submitting an exam application.

2. Verify Your Medical Science Liaison Society Membership Status

In order to take advantage of the reduced member fee, you must be a current member of the Medical Science Liaison Society before beginning the application process. Log into www.themsls.org to verify your membership status. If you wish to join before applying for your exam, you may join online at <https://members.themsls.org/page/joinnow>. If you are not interested in joining, proceed with the application process.

Participation in the certification program is voluntary and open to anyone meeting the eligibility requirements. Membership in the Medical Science Liaison Society is not required.

3. Submit Your Application

Submit your application online. All required elements (application, supporting documentation) must be submitted at the same time.

- Applications must be completed online.
- All communication with applicants will be administered via email only.
- The application must be completed by selecting “yes” on the “Attestation and Eligibility Requirements Agreement” section of the application. Incomplete applications will be unprocessed.
- An acknowledgement of the candidate’s application will be provided via email within 24 business hours of application submission.

4. After Submitting Your Application

- An acknowledgement of the candidate’s application status will be provided via email within 10 business days of receipt of the application.
- If not approved and you wish to appeal, refer to the **Eligibility Appeal** section for further instructions.
- If approved, an Authorization to Test letter (ATT) will be included in the acknowledgement email regarding the candidate’s application status. The ATT will include instructions on how to complete the payment, schedule the exam date with ProctorU, and other details about the exam.
- If you are approved, you will have three (3) weeks from date of approval to schedule and complete the exam.



- After approval and the candidate has completed the online registration process with ProctorU, an electronic confirmation will be sent to the candidate containing the candidate's name, identification number, the date/time of the test, and the name of the test. Candidates must possess a webcam and high-speed internet connection in order to take the certification examination.

To ensure you receive your notification, we recommend you add certification@themsls.org to your email safe senders list.

Review: Before candidates can take the exam, they must:

1. Submit an application with supportive documents and payment
2. Receive an approval letter and Authorization to Test (ATT) letter (via email)
3. Create a ProctorU account and schedule an appointment to take the exam (directions provided in the ATT letter)

Completing the online application indicates that you have read and understand the entire candidate handbook including all policies.

Special Accommodations

The Medical Science Liaison Society Certification Committee will provide reasonable accommodations for exam candidates with disabilities that are covered under the Americans with Disabilities Act (ADA). Accommodations may not be available if they present an undue burden to the MSL Society Certification Committee or if they fundamentally alter the measurement of the knowledge the assessment is intended to evaluate.

Candidates requesting special accommodations must submit the Special Accommodations Request Form found on the MSL-BC® application.

If the request is approved, the candidate will receive a Notice of Approval along with the Authorization to Test letter.

Examination Schedule

The exam schedule is considered rolling enrollment, meaning you can schedule and take your exam at a date and time that is convenient for you. However, you must schedule your exam through ProctorU and adhere to that schedule. Candidates must sign onto the testing portal no later than 15 minutes after the scheduled time of the exam. It is recommended that you arrive 15 minutes early to set up your equipment and conduct the verification process. You will have four (4) hours to complete the exam. There are no scheduled breaks.



Required Identification

Candidates must present a valid, non-expired form of government-issued identification prior to being admitted into the certification online portal.

The identification document **must**:

- Be government-issued (e.g., driver's license, passport, state-issued identification card or military identification card); and
- Contain **both** a current photo and the candidate's signature; **and**
- Display a first and last name that **matches exactly** to the name provided on the application (including designations such as "Jr." and "III").

Candidates who cannot provide the identification listed above, should contact the Medical Science Liaison Society before scheduling their exam appointment to arrange an alternative way to meet this requirement.

Important: Failure to provide appropriate identification at the time of the exam is considered a missed appointment. If a candidate misses an appointment, the candidate's exam fee will be forfeited and the candidate will be required to register again and pay another examination fee. **If your name changes for any reason prior to your scheduled exam, you must contact the Medical Science Liaison Society BEFORE scheduling your exam; failure to do so will result in a missed appointment.**

Online Testing Center Rules

Candidates are required to complete the exam online through a live-proctoring service called ProctorU. This live online proctoring service allows you to take the exam from the comfort of your home or office. ProctorU is available 24/7, however, you will need to schedule your proctoring session at least 72 hours in advance (to avoid last-minute processing fees required by and provided to ProctorU).

In order to use ProctorU, you will need a high-speed internet connection, a webcam (internal or external), a Windows or Apple operating system, and a government issued photo ID. The entirety of the exam will be recorded and confidential. Using company computers is not recommended due to the installed firewalls which may prevent the individual from properly accessing and completing the exam.

To learn more: <https://www.proctoru.com/proctoru-live-resource-center>

Virtual administration along with live proctoring the exam provides all global MSLs and MSL leaders access to the MSL-BC® exam.

ProctorU recommends that you visit <https://test-it-out.proctoru.com/> prior to your exam session to test your equipment. Click on the button that says "Connect to a live person" to fully test out your equipment. Please make sure that you are using the current version of your browser and have



downloaded the ProctorU extension available at <http://bit.ly/proctoruchrome> or <https://www.proctoru.com/firefox>.

You should expect the startup process with the proctor to take about 10-15 minutes. However, this time will not affect your exam time. Please feel free to direct any questions to the student support team via the live chat within your account.

Details About the MSL-BC® Exam

1. Consists of 140 multiple-choice questions. Of these, 125 questions will be used to calculate your test score. The remaining 15 items serve as pretest questions, and do not affect your final score.
2. You will have a total of four (4) hours to complete the exam.
3. The exam is virtual and can be completed at your home or office (*we do not recommend using company issued computers as there are often company firewalls which prevent the individual from properly accessing and completing the exam*).
4. The exam will be administered through the Medical Science Liaison Society's Learning Management System (LMS) and will be remote proctored live through ProctorU.

VERY IMPORTANT - If you are approved, you will have three (3) weeks to schedule and complete the exam.

To ensure that all candidates are tested under equally favorable conditions, the following regulations and procedures will be observed during the examination process. Failure to follow any of these security procedures may result in the disqualification of the candidate's examination.

Testing Regulations and Procedures for the MSL-BC® Exam

The following are enforced by all the test administrators:

- All candidates must have a valid, government-issued photo ID to be admitted to the exam;
- Candidates are admitted only to their assigned exam;
- Candidates arriving more than 15 minutes after the scheduled exam time will not be admitted;
- No guests are permitted in the room or immediate surrounding area during the examination process;
- No reference material, books, papers, or personal items (purses, briefcases, coats, etc.) are allowed in the examination room or displayed on the walls;
- The exam is only administered in English. No translation materials will be permitted during the exam;
- No electronic devices are permitted in the examination room, including telephones, signaling devices such as pagers and alarms, personal digital assistants (PDAs) and other handheld computers;
- Food and beverages are not permitted unless for documented medical purposes. Tobacco products and gum may not be used during the examination;



- No test materials, documents, notes, images, photos or memoranda of any kind are to be taken from the examination;
- Candidates may not communicate with other parties during the examination;
- Proctors are authorized to maintain secure and proper test administration procedures, including cancelling examinations if testing protocols are violated by the candidate;
- Breaks are not scheduled during the exam. Candidates are permitted breaks on an individual basis, but no additional time is given to candidates who take breaks;
- Candidates who must leave the examination room will have their examinations scores cancelled making them ineligible to take the examination. If a candidate leaves the room during the exam, they will be denied re-admittance to the examination, forfeit all fees, and will not have their exam scored.

If Questions Arise During the Exam

If at any time during the exam a candidate has a problem with his or her computer or needs the proctor for any reason, the candidate should immediately ask for assistance. Test proctors are not allowed to answer any questions pertaining to the test content. If a candidate does not understand a question on the test, he or she should answer the question to the best of his or her ability.

Withdrawal Policy/Requesting a Refund

Candidates who have scheduled an examination appointment as well as those who have not yet scheduled an appointment with ProctorU may withdraw from the MSL-BC® examination and request a refund or request a reschedule to another exam date. The steps for withdrawing and requesting a refund include:

Step One

If you have a scheduled examination appointment, you must first cancel your appointment with ProctorU **at least 3 business days** prior to your scheduled appointment date. To cancel your examination appointment, contact ProctorU. If you fail to cancel your exam within 3 business days prior to your scheduled appointment, you will forfeit all fees. After you have canceled your examination appointment, proceed to Step 2.

If you have **not** scheduled your exam appointment, proceed to step two.

Step Two

To withdraw from the examination and obtain a refund, all candidates must notify the Medical Science Liaison Society of their intent to withdraw by submitting a request via email to certification@themsls.org. Candidates will receive a refund minus a **\$50 USD administrative fee**.

Candidates who submit a request for refund but did not cancel their examination appointment with ProctorU or do not cancel at least three days before their scheduled appointment date will forfeit 100% of all fees.



Refunds will be issued no later than 4 weeks after the request is received.

Rescheduling an Exam

Rescheduling an exam appointment is permitted. However, rescheduling availability may vary, depending on the new date selected to take the exam. Candidates *must* reschedule by logging back into ProctorU, click on “My Session” and click reschedule.

Candidates can only request to reschedule if they have canceled their examination appointment with ProctorU at least 3 business days before the scheduled appointment.

Candidates who do not take the exam during the rescheduled date will forfeit all examination fees.

No Show/Late Arrival

Candidates will not be permitted to take the exam if they present themselves more than fifteen (15) minutes after the scheduled start time for taking the exam and will be denied admittance to the exam.

Candidates who do not appear for their scheduled examination appointment, who do not request a refund, or who do not cancel their appointment within the specified time frame (at least 72 hours before their scheduled appointment), will be considered no-shows and will forfeit all examination fees.

Emergencies

Every attempt will be made to administer all examinations as scheduled. However, should any problems occur, the exam will be rescheduled at no cost to the candidate.

If the exam is unable to be administered or if any candidate is unable to participate in the exam because of inclement weather, a natural disaster, or other unforeseen emergencies beyond the control of the candidate as determined by the Medical Science Liaison Society, the candidate may receive an extended testing window (to be determined on an individual basis) and be allowed to reschedule the examination without being charged a re-examination fee. Candidates must contact the Medical Science Liaison Society, via email (certification@themsls.org) as soon as possible if they are unable to take the exam due to an emergency.

MSL-BC® Examination Detailed Content Outline

(Effective January 31, 2020)

Following international certification standards, the Medical Science Liaison Society conducted a **Job Task Analysis Meeting and a Job Task Analysis Survey** to support the content validity of the MSL-BC® Examination. Program content validity was demonstrated with a comprehensive job analysis conducted and analyzed by experts, with data gathered from current experienced MSLs and MSL leaders. The process identified the knowledge and skills required to competently perform the role of an MSL



professional and the level of importance and frequency of specific knowledge and tasks associated with the role of an MSL or MSL leader.

The Medical Science Liaison Society offers the MSL-BC® certification examination to professionals either working as **Medical Science Liaisons (or equivalent title) or leading Medical Science Liaison teams**.

The exam consists of 140 questions. Of these, 125 questions will be used to calculate your test score. The remaining 15 items serve as pretest questions, and do not affect your final score. Pretest questions are administered to evaluate the item for possible inclusion as a scored question in future exams. These pretest questions are dispersed throughout the exam and are not identified on the examination. The **Detailed Content Outline** identifies the areas that are included in the examination.

Using the MSL-BC® Examination Detailed Content Outline

The MSL-BC® Examination Detailed Content Outline was constructed from the results of the **Job Task Analysis Meeting and a Job Task Analysis Survey** which were both conducted in 2017. The results of these provided the framework for the knowledge and tasks important to the roles of an MSL and MSL leader and therefore the content of the exam. To be certified, an MSL or MSL leader is expected to have proficiency in the three (3) main content areas displayed in the chart below. The percentage of scored questions in each of the major content areas is shown below.

Content Areas		Percentage of scored items on exam
A	Engaging External Stakeholders	52%
1	Develop KOL Engagement Plans	7.2%
2	Collect Insights	8%
3	Identify Clinical Investigators	8%
4	Communicate Medical/Scientific Data	8%
5	Connect Internal and External Stakeholders	4.8%
6	Provide Conference Support	5.6%
7	Support External Stakeholder Research Activities	4.8%
8	Respond to Medical Information Requests	5.6%



B	Collaborating with Internal Stakeholders	21%
1	Provide Scientific Education and Training	10.4%
2	Support Clinical Research Team	4.8%
3	Serve as an SME on Internal Cross-Functional Teams	5.6%
C	Maintaining MSL Expertise	27%
1	Remain Current on Scientific Knowledge	17.6%
2	Maintain Knowledge of Pharmacoeconomics	4.8%
3	Coordinate Activities with other Field Personnel in Territory	4.8%

Medical Science Liaison-Board Certification (MSL-BC®) Examination Detailed Content Outline

(Effective January 31, 2020)

As defined by the most recent **Job Task Analysis Meeting and Job Task Analysis Survey**, an MSL-BC® shall have proficient knowledge in the following three (3) content areas, 14 tasks, and 60 steps, illustrated below. An MSL or MSL leader typically uses this knowledge to perform the tasks listed.

The specific knowledge and tasks identified as important are provided in the MSL-BC® Detailed Content Outline listed below. The best preparation is to understand the MSL-BC® knowledge requirements and their application to the MSL Role. Therefore, to prepare to take the MSL-BC® Exam, one should study this outline and especially consider the underlying knowledge, skills, and abilities needed to perform as an MSL or MSL leader. It is recommended that an eligible candidate use this outline to identify knowledge gaps for constructing a relevant preparation plan. Because of the nature of the exam, there is not one single comprehensive source to go to in order to study or prepare. Choice of study aids will depend upon learning style and current knowledge base.

A detailed content outline serves as the basis for the development of the examination and its test specifications. A valid examination accurately reflects the knowledge and skills required for competent practice. All questions appearing on the examinations have been validated using accepted psychometric rating scales. Subject matter expert volunteers from the MSL profession developed the questions on the examination. The Test Development Committee reviewed and finalized all questions for the



examination. Each stage of the MSL-BC® examination development is an intensive peer review process. Each scored examination question has been verified for accuracy, and referenced to a published source.

Duties, Tasks and Steps			Special Knowledge	Skills
A		Engaging External Stakeholders		
	1	Develop KOL Engagement Plans		
		a Apply KOL Criteria	Medical Strategy	Analytical
		b Develop a Tiered KOL List Based on Profiling and Criteria	Compliance Rules	Communication
		c Select Tactics and Timelines for each KOL Aligned with the Medical Strategy	KOL's interests and current engagement with the company	Prioritization
		d Develop Relationships with KOLs	Healthcare Environment	Organizational
			Tier Criteria	Networking
			SOPs	Relationship building
	2	Collect Insights		
		a Engage in Scientific Exchange	Strategic Topics of Interest	Analytical
		b Recognize Pertinent Insights to the Medical Strategy	Definition of Insight	Communication
		c Document Insights	Compliance Rules	Interviewing
		d Escalate Insights	SOPs	Listening
				Organizational
	3	Identify Clinical Investigators		
		a Identify Clinical Study Needs	Gap Analysis	Manage Expectations
		b Evaluate Investigators and Sites	Study Protocol	Communication



		c	Match Clinical Investigators with Clinical Study Needs	Clinical Strategy	Analytical
		d	Prioritize Clinical Investigators and Sites based on Criteria	Good Clinical Practice (GCP)	Business Acumen
		e	Submit Recommendations	Regulatory Approval Process	
				Product Development Process (drug and devices)	
				Clinical Investigator/Site History	
	4		Communicate Medical/Scientific Data		
		a	Complete Therapeutic Area and Product Training	Scientific Platform	Technological
		b	Demonstrate Readiness to Proceed	Audience Interest	Pre-call Planning
		c	Align Data to Target Audience	SOPs	Active Listening
		d	Select Approved Materials	FAQs	Storytelling
		e	Engage in Two-way Scientific Exchange	Standard Responses	Presentation
		f	Provide Education and Training	Insights	Communication
	5		Connect Internal and External Stakeholders		
		a	Identify Internal and External Stakeholder Interests	Stakeholder Interests	Networking
		b	Align Internal and External Stakeholder Interests	Organizational Structure	Relationship Building
		c	Introduce Aligned Stakeholders	Medical Strategy	Communication



		d	Facilitate an Ongoing Relationship	Company Strategy	Manage Expectations
		e	Manage Expectations		
	6		Provide Conference Support		
		a	Identify Expected Conference Activities	SOPs	Networking
		b	Perform Pre-Conference Planning		Communication
		c	Obtain Scientific Insights		Intelligence Gathering
		d	Execute Objectives Aligned with Medical Strategy		
		e	Contribute to the Production of the Post- Conference Report		
		f	Perform Post-Conference Follow-up with HCPs		
	7		Support External Stakeholder Research Activities		
		a	Make KOLs Aware of Research Priorities	Gap Analysis	Research
		b	Evaluate Unsolicited Proposal Ideas	Research Priorities	
		c	Support Generation of Medical Evidence from Research Activities		
		d	Explain the Submission Process to Investigators		
		e	Support Study Progress		
	8		Respond to Medical Information Requests		
		a	Identify Requests as On-Label or Off-Label	Off-Label Requests	Communication
		b	Provide Disclaimers Regarding Off-Label Requests	On-Label Requests	Question Clarification



		c	Reply and/or Request Follow-up from Medical Information	SOPs	Technological
		d	Document Off-Label Requests	Standard Responses	
		e	Follow-up with Requester		
B			Collaborating with Internal Stakeholders		
	1		Provide Scientific Education and Training		
		a	Select Educational and Training Materials based on Request	Approved Materials	Training
		b	Prepare for the Training	Internal Material Review Process	Communications
		c	Deliver Education or Training	Compliance	Active Listening
		d	Facilitate Dialogue and Respond to Questions	SOPs	Presentation
	2		Support Clinical Research Team		
		a	Clarify Roles and Expectations of Field Medical	Study Protocols	Analytical
		b	Assess Territory for Directives	Good Clinical Practice (GCP)	Problem Solving
		c	Follow Directives of the Clinical Research Team	Regulatory Approval Process	
		d	Execute Clinical Support Activities	Clinical Trial Design	
				Pharmacovigilance	
				Product Development Process (drug and devices)	
	3		Serve as an SME on Internal Cross-Functional Teams		
		a	Identify Role on Team	Roles	Collaboration



		b	Provide Field/Scientific Input	Cross-Functional Teams	Team Building
		c	Provide Project Updates to Stakeholders	SOPs	Time Management
					Prioritization
C			Maintaining MSL Expertise		
	1		Remain Current on Scientific Knowledge		
		a	Determine Appropriate Sources	Databases	Defining Search Terms
		b	Determine Relevancy and Credibility of Sources	Sources	Research
		c	Critically Evaluate Content	Conferences	Fact Finding
		d	Apply Knowledge to Role	Literature	Technological
				Product Development Process (drug and devices)	
	2		Maintain Knowledge of Pharmacoeconomics		
		a	Define Common Pharmacoeconomics Terminology	Pharmacoeconomics	
		b	Articulate the Value of Products		
	3		Coordinate Activities with other Field Personnel in Territory		
		a	Identify Field Personnel in Territory	Territory	Scheduling
		b	Delineate Roles and Responsibilities of Field Personnel in Territory	Roles and Responsibilities of Field Personnel	Coordinating
		c	Coordinate Field Activity	SOPs	



References for the (MSL-BC®) Examination

This reference list contains journals and websites that may be helpful in preparing for the MSL-BC® exam. Use of the references does not guarantee a passing score on the test and provided for informational purposes only.

Guidance for Industry Responding to Unsolicited Requests for Off-Label Information About Prescription Drugs and Medical Devices, US Food and Drug Administration, electronically accessed from: <http://www.fda.gov/downloads/drugs/guidancecomplianceregulatoryinformation/guidances/ucm285145.pdf>.

Code on Interactions with Healthcare Professionals, PhRMA, electronically accessed from <https://www.phrma.org/en/Codes-and-guidelines/Code-on-Interactions-with-Health-Care-Professionals>.

OIG Compliance Program Guidance for Pharmaceutical Manufacturers, Department of Health and Human Services Office of Inspector General, electronically accessed from: <http://oig.hhs.gov/authorities/docs/03/050503FRCPGPharmac.pdf>.

OIG Compliance Guidance, Department of Health and Human Services Office of Inspector General, electronically accessed from: <http://oig.hhs.gov/compliance/compliance-guidance/>.

FDA Learning Activities, US Food and Drug Administration, electronically accessed from: <http://www.fda.gov/ForHealthProfessionals/LearningActivities/default.htm>.

MedWatch: The FDA Safety Information and Adverse Event Reporting Program, US Food and Drug Administration, electronically accessed from: <http://www.fda.gov/Safety/MedWatch/default.htm>.

Medical Product Safety Educational Resources, US Food and Drug Administration, electronically accessed from: <http://www.fda.gov/Safety/MedWatch/ucm133050.htm>.

Medical Device Overview, electronically accessed from: <https://www.fda.gov/industry/regulated-products/medical-device-overview>.

Overview of Device Regulation, electronically accessed from: <https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/overview-device-regulation>.

The Drug Development Process, US Food and Drug Administration, electronically accessed from: <http://www.fda.gov/ForPatients/Approvals/Drugs/default.htm>.



Overview of Drugs, electronically accessed from:

<https://www.fda.gov/industry/regulated-products/human-drugs>.

Guidance for Industry Responding to Unsolicited Requests for Off-Label Information About Prescription Drugs and Medical Devices, US Food and Drug Administration, electronically accessed from:

<http://www.fda.gov/downloads/drugs/guidancecomplianceregulatoryinformation/guidances/ucm285145.pdf>.

Good Clinical Practice 101: An Introduction, US Food and Drug Administration, electronically accessed from: <http://www.fda.gov/downloads/Training/CDRHLearn/UCM176414.pdf>.

Guidelines for MSL Activities, The Medical Science Liaison Society, electronically accessed from:

<https://www.themsls.org/free-guest-reports/>.

Most Common MSL Related Acronyms and Terms, electronically accessed from:

<https://www.themsls.org/msl-benchmarking-reports/>.

Preparing for the Exam

Candidates should prepare thoroughly prior to taking the MSL-BC® examination. To help prepare for the examination, candidates should review both the **Details About the MSL-BC® Exam** as well as the **Examination Detailed Content Outline** sections in this handbook.

References

Refer to the **References** section of this handbook for a list of references which can be used to prepare for the examination. These references should not be considered the only possible study option nor should examination candidates feel like they need to read all of the references and are provided for informational purposes only. After carefully reviewing the **Examination Detailed Content Outline** section and identifying individual learning needs, examination candidates should identify additional references and study opportunities as necessary.

WARNING: The Medical Science Liaison Society **DOES NOT** sponsor or endorse any specific educational courses; even if the course is advertised as a “prep” or “review” course for the exam. Those creating these courses do not have ANY inside information about the exam. The Medical Science Liaison Society is not affiliated with any organizations claiming to prepare one for the MSL-BC® examination. You should not expect them to directly cover exam content. The same information that is included in this handbook to help you prepare is publicly available to those creating any “review” courses or materials.

After completing the exam, the results will be verified and an official score report will be emailed to the candidate within 3 weeks. The score report provides information on whether the candidate passed or failed the examination and the number of questions correctly answered. The passing score reflects the



standard a committee of experts has determined to be appropriate for certification, according to accepted testing development guidelines.

For those who achieve a passing score, details explaining the MSL-BC® credential, how to use it, and information regarding the 3-year certification period will be included. In addition to a score report, passing candidates will also receive a downloadable version of the certificate from the Medical Science Liaison Society Certification Committee.

For those who do not achieve a passing score, a confirmation email will be sent which will include information regarding the retake process, fees, and details on how to prepare for the exam.

Under no circumstances will scores or passing information be released over the phone or online.

Examination questions and answers will not be released to candidates.

Passing Score

The MSL-BC® examination consists of 140 questions. Of these, 125 questions will be used to calculate your test score. The remaining 15 items serve as pretest questions, and do not affect your final score. Pretest questions are administered to evaluate the item for possible inclusion as a scored question in future exams. These pretest questions are dispersed throughout the exam and cannot be identified by the candidate.

In order to pass the exam and earn the MSL-BC® credential, you must correctly answer a minimum **86** of the **125** scored questions.

Note: The passing point (86) set for the exam cannot be appealed.

Specific questions on the exam and/or answers to exam questions will not be discussed or released.

The **Detailed Content Outline** identifies the areas that are included in the examination. The percentage of scored questions in each of the major content areas is also provided.

Your performance on the exam will be measured against a predetermined standard of knowledge. This standard is the baseline knowledge that can reasonably be expected of individuals with fundamental competence in the Medical Science Liaison profession. You will NOT be measured against the performance of the other individuals taking the exam. This means that if everyone who takes the exam meets the knowledge standard, everyone will pass.



Invalidated Scores

On rare occasions, circumstances may invalidate exam scores. The Medical Science Liaison Society retains the right to invalidate or withhold any exam scores. Invalid scores fall into two categories:

1. Doubts may be raised by the proctor of suspected misconduct or cheating by a candidate. A candidate is expected to cooperate with any investigation to determine if the score is invalid.
2. In rare instances, there may be a problem with the examination technology or live proctoring; such situations will be investigated. The exam will not be valid in these instances. If it is determined that there was an issue with the examination technology or live proctoring, the candidate will be offered an opportunity to retake the exam complementary.

In addition, the Medical Science Liaison Society may invalidate any candidate's score if, upon investigation, it is determined there has been a violation of the testing and/or candidate validation policies.

Retake Policy

Anyone who does not succeed in passing (excluding those deemed to have shown misconduct) the exam may retake the exam. Registration will be subject to the current guidelines and **Examination Fees** section in this handbook.

Candidates must apply and pay for each MSL-BC® Certification exam attempt. Candidates who fail an MSL-BC® certification exam must wait 60 days from the most recent attempt to apply for the second and third attempts, and 3 months for attempts thereafter. After four attempts, candidates must provide completion evidence of additional professional development to the Medical Science Liaison Society Certification Committee for review and approval before applying for additional attempts. Professional development activities completed prior to the most recent attempt will not be considered.

Candidates are not limited to a finite number of exam attempts, although candidates are strongly encouraged to prepare for each attempt. MSL-BC® certification exams are very reliable exams, which means that candidates who are not successful when taking the exam, should not expect to pass on subsequent attempts unless they increase their knowledge of the examination content through additional preparation.

Recertification

MSL-BC® credentialed professionals will be required to engage in documented, Continuing Education (CE) activities to maintain their certifications within each 3-year recertification cycle. Specific requirements are currently under development. The CE activities may include participation in formal education (both online and face to face), publications, and presentations. MSL-BC® credentialed professionals may also have the option to retake the examination to meet the recertification requirements. The MSL Society retains the right to revise its Recertification Policy as appropriate. MSL-BC® credentialed professionals will be required to comply with the policy which is in place at the time of their application for recertification.



Code of Ethics for Medical Science Liaisons and MSL Leaders

Basic Beliefs

Professionals certified by the Medical Science Liaison Society Certification Committee shall:

1. Respect the basic human rights and the dignity of all patients and colleagues, without consideration of social or economic status, race, religion, age, sex, national origin, disability, personal attributes, nature of the health problem(s), or any other factors;
2. Protect the patient and significant others from harm and advocate for their welfare;
3. Maintain confidentiality of company and industry information, except when disclosure is required by law;
4. Utilize the most recent research and educational information as the basis for health care practices;
5. Maintain the knowledge and skills necessary for competent practice as a Medical Science Liaison;
6. Report known or suspected violations made by MSL-BC® professionals;
7. Demonstrate respect for the cultural and ethnic background of professional colleagues.

Code of Ethics

Professionals certified by the Medical Science Liaison Society Certification Committee must not:

1. Discriminate against patients and colleagues on the basis of social or economic status, race, religion, age, sex, national origin, disability, personal attributes, nature of the health problem(s), or any other factors;
2. Harm the patient and/or others in the performance of their professional obligations;
3. Engage in sexual harassment, disrespectful or abusing behavior in connection with professional duties;
4. Engage in substance abuse that could adversely affect my job performance or endanger co-workers;
5. Violate the confidentiality of company and industry information, except when disclosure is required by law;
6. Conceal or fail to disclose an actual or apparent conflict of interest;
7. Fail to maintain the knowledge and skills necessary for competent practice as a Medical Science Liaison;
8. Fail to report known or suspected violations made by MSL-BC® professionals;
9. Violate any applicable local, state, and federal laws, rules and/or regulations that promote public health, safety and welfare or violate any policies of the MSL Society;
10. Knowingly misappropriate, divert or use monies, personnel, property, or equipment belonging to others for personal gain or advantage;
11. Make false statements about a colleague or professional peer;
12. Plagiarize on another person's printed, audio or visual recordings or using presenting them publicly as original materials, including material that may not be governed by standard copyright laws and restrictions; or



13. Misrepresent my professional training and qualifications and knowingly permit, aid, abet or suffer the misstatement of my training and qualifications by others.

Disciplinary Procedures

The following disciplinary procedures are used for complaints alleging violations of the Code of Ethics. The complaint must contain details of the alleged activities; the basis for complainant's knowledge of these activities; names, addresses, and telephone numbers of all persons involved or who might have knowledge of the activities; and whether the complaint has been submitted to a court or an administrative body. The complaint must also cite the section(s) of the Code of Ethics allegedly violated. The complaint must be signed and sworn to by the complainant(s). Any complaints that do not contain the required information may be immediately dismissed. Complaints may be initiated by any person or the MSL Society itself. Once a complaint is deemed appropriate for further review, the MSL Society Certification Committee shall conduct an investigation.

The MSL Society Certification Committee shall provide written notice to the individual whose conduct has been called into question. The individual whose conduct is at issue shall be given the opportunity to respond to the complaint.

If an individual is found to have violated the Code of Ethics, the MSL Society Certification Committee may issue one of the following sanctions: (a) issue a public or private reprimand, (b) suspend a certificant, or (c) revoke a certificant's certification.

Within thirty (30) days from receipt of notice of a sanction by the MSL Society Certification Committee, the individual may submit to the Appeals Committee an appeal in accordance with the MSL-BC® appeals procedures.

Medical Science Liaison Society Certification Committee retains the sole authority to amend or repeal its policies regarding denial or revocation of certification at any time including, but not limited to, the authority to add new grounds for denial, suspension or revocation.

It should be emphasized that actions taken under these procedures do not constitute enforcement of the law, although referral to appropriate federal, state, or local government agencies may be made about the conduct of the individual in appropriate situations. Individuals initially bringing complaints are not entitled to any relief or damages by virtue of this process, although they will receive notice of the actions taken.

Additional details regarding MSL-BC® appeal procedures and mailing address can be found at: <https://www.themsls.org/msl-board-certification/>. Please review these procedures prior to submitting an appeal.



Candidate Application and Acknowledgement Statement

All candidates must agree with terms within the Candidate Application and Acknowledgement Statement and agree to all policies, procedures, and terms and conditions of certification in order to be eligible for the MSL-BC® credential. Attesting to the application indicates that you have read and understand the candidate handbook to include all policies.

The Acknowledgement Statement:

I have read the current Eligibility Requirements and attest that I meet these requirements.

I understand the information I have provided could be audited to verify my eligibility. I understand my certification can be delayed until eligibility is verified. I authorize the Medical Science Liaison Society to make whatever inquiries and investigations that it deems necessary to verify my credentials and professional standing.

I understand that submission of false or misleading information to the Medical Science Liaison Society or any cheating by me at any time may be cause for withdrawal or revocation of this application without refund of any fees paid, loss of credential (if currently held), cancellation of scores, or denial of eligibility as a candidate to take the exam.

I hereby apply for the Medical Science Liaison-Board Certification (MSL-BC®) credential. I understand that my certification depends on my ability to meet all requirements and qualifications. I certify that the information contained in this application is true, complete, and correct to the best of my knowledge and is made in good faith. I further understand that, if any information is later determined to be false or misleading, or if I have been determined to have cheated in any way, Medical Science Liaison Society reserves the right to cancel any related scores or impose discipline at its discretion. Further, I agree to abide by all Medical Science Liaison Society policies and procedures, including but not limited to the Medical Science Liaison Society Code of Ethics and disciplinary policies and actions.

I hereby release, discharge, indemnify, hold harmless, and exonerate Medical Science Liaison Society, its directors, officers, members, examiners, representatives, affiliates, employees, and agents, from any actions, suits, obligations, damages, claims or demands arising out of, or in connection with, any aspect of the application process including results or any other decision that may result in a decision to not issue me a certificate.

I further understand, acknowledge and agree:

1. That the questions and answers of the exam are the exclusive, confidential, proprietary, valuable, copyrighted property of Medical Science Liaison Society and are protected by the United States Copyright Act and other applicable laws.
2. That I may not disclose the exam questions or answers, in whole or in part, or discuss any content of the exam with any person or in any respect, in any form or media, without prior written approval of Medical Science Liaison Society, and that I must report to the proctor or to authorized Medical Science Liaison Society personnel any instances where any other person appears to be violating this nondisclosure rule or to have been cheating in any way.



3. Not to remove from the examination system any exam materials of any kind provided to me or any other material related to the exam, including any notes or calculations.
4. Not to copy or attempt to make copies (written, photocopied or otherwise) of any exam material, any exam questions or answers, or any notes or calculations.
5. Not to sell, license, distribute, give away, or obtain from any other source other than Medical Science Liaison Society the exam materials, questions or answers.
6. That my obligations in accordance with Medical Science Liaison Society requirements shall continue in effect after the examination and, if applicable, after termination of my certification, regardless of the reason or reasons for termination, and whether such termination is voluntary or involuntary.
7. That any and all uses of the MSL-BC® credential must be consistent with applicable Medical Science Liaison Society policies and procedures and that unauthorized use or misuse in any way will constitute grounds for disciplinary action, including but not limited to revocation of my credential, legal action, or other action by Medical Science Liaison Society to protect its valuable intellectual property.
8. I attest that I have reviewed and understand this Handbook and agree to the statements above and to abide by all policies and procedures, including the confidentiality and disciplinary rules, of the Medical Science Liaison Society Certification Committee. I agree that I am subject to the disciplinary policies and procedures of the Medical Science Liaison Society.



Appendix A

Alternative and Equivalent titles for Medical Science Liaison

Many companies use various alternatives to the Medical Science Liaison title, even though the roles have similar or equivalent responsibilities. Some alternate and equivalent titles include but are not limited to:

- Clinical Liaison
- Clinical Science Consultant
- Clinical Science Liaison
- Clinical Science Specialist
- Clinical Specialist
- Clinical Trial Educator
- Clinical Trial Liaison
- Field Medical Director
- Global Medical Advisor
- Market Access Liaison
- Medical Advisor
- Medical Development Advisor
- Medical Liaison
- Medical Liaison Manager
- Medical Manager
- Medical Outcomes Liaison
- Medical Relationship Manager
- Medical Science Consultant
- Medical Science Manager
- Medical Scientific Director
- Medical Scientist
- Molecular Science Liaison
- Precision Medicine Liaison
- Regional Medical Advisor
- Regional Medical Director
- Regional Medical Liaison
- Regional Medical Manager
- Regional Medical Scientist
- Regional Scientific Manager
- Remote Medical Liaison
- Scientific Affairs Manager