

# SLMTA 3 E-LEARNING COURSE

## COUNTRY IMPLEMENTATION GUIDE

v3



### SLMTA 3 e-Learning Course

#### 5 course components

1

#### Off-line Self Study

- 189 recorded lecture videos (19+ hours viewing time)
- Weekly homework (26 hours)

2

#### Weekly Zoom-based live sessions\*\*

15 weekly sessions

3

#### Weekly office hours

- Get assistance on homework
- Ask any question you have
- Optional

4

#### Peer support group

(WhatsApp, on-line discussion forum)

5 ECHO Series – Tele-mentoring for Improvement Projects (optional)

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## Assumptions

- Countries will use the public-facing course materials on the SLMTA 3 course [website](#) (190+ lecture videos and 300+ documents) to deliver the didactics. Non-English-speaking countries who wish to recreate the lecture recordings and documents in their own languages will need additional considerations not accounted for in this guidance.
- If countries want to replicate the non-public facing section of the course website including the recordings of live sessions, discussion forum, and participant profiles (accessible only by registered participants), they are responsible for administering those webpages.
- Countries are responsible for providing a legal copy (paper or cloud) of the ISO 15189 document to their participants.
- Countries will be responsible for organizing and delivering live sessions, including the weekly office hours and training sessions. These may be done virtually or face-to-face, depending on country preferences. The office hours are designed to help participants with their homework before submission deadlines while the training sessions focus on group-based learning, such as conducting/debriefing group activities, reviewing homework, Q&A, and discussion.

## Identify key team members for the course

Key members include Course Director, Course Facilitators, and Course Coordinator. See their qualifications below. Refer to [Appendix A](#) for their roles and responsibilities. One person may serve more than one role – for example, a facilitator may also serve the role of the course director if they have the skills and capacity.

Member	Qualifications
<b>Course Director</b>	<ul style="list-style-type: none"> <li>▪ Experience in SLMTA program management</li> <li>▪ Experience in project management</li> <li>▪ Experience in mentoring others, with coaching and feedback skills</li> <li>▪ Competency in learner-centered facilitation skills</li> <li>▪ Proven track record in engaging stakeholders effectively</li> <li>▪ Experience in program monitoring and evaluation</li> <li>▪ Familiarity with the Zoom platform or other virtual platforms</li> </ul>
<b>Facilitators</b>	<ul style="list-style-type: none"> <li>▪ SLMTA master trainers or trainers who have attended the SLMTA 3 face-to-face workshop or eLearning course</li> <li>▪ Have the commitment and availability for the entire duration of the course</li> <li>▪ Experience in mentoring others, with coaching and feedback skills</li> <li>▪ Familiarity with the Zoom platform or other virtual platforms</li> </ul>
<b>Course Coordinator</b>	<ul style="list-style-type: none"> <li>▪ Basic data analytical skills</li> <li>▪ Good Microsoft office skills</li> <li>▪ Attention to detail</li> <li>▪ Excellent organization skills</li> <li>▪ Ability to meet tight deadlines</li> <li>▪ Availability to be present in all live sessions</li> <li>▪ Familiarity with the Zoom platform or other virtual platforms</li> </ul>

Other team members may include web master and IT support.

## Define your country's course delivery model

Consider factors such as: access to stable internet connections, costs, and other factors Refer to the following 3 main options to design your own variation. See [Appendix B](#) for cost comparisons between face-to-face and e-learning delivery.

<b>E-learning Components</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
<b>Webinars</b>	100% live on-line (synchronous)	Hybrid: Face-to-face for the first (kick-off) and last (graduation) session of the course	100% face-to-face (synchronous)
<b>Office Hours**</b>	100% on-live	See below**	See below**
<b>Homework/self-study</b>	Off-line (asynchronous)	Off-line (asynchronous)	Off-line (asynchronous)
<b>Advantage</b>	Anyone can attend the course regardless of their geographic locations. No venue hire or travel costs and less disruption to participants' work schedules. This option also broadens the pool of candidates for facilitators since they can train from anywhere.	Face-to-face interactions facilitate community and relationship building.	No internet access is needed to attend live sessions, although it is still required to access the course website.
<b>Disadvantage</b>	Access to strong and steady internet access is essential. Without it, learning will be severely hampered. Participants need to learn the new virtual platform used for e-learning.	This option may limit access by participants from certain geographic area. Venue hire, travel costs and per diem may be required.	This option may be the most expensive (i.e., venue hire and travel expenses/per diem). It is also the most disruptive to participants' work schedules since they must travel to the training site weekly. This option may limit access by participants from certain geographic areas.

\*\*One alternative for the Office Hour may be, instead of a live session via Zoom, participants post their homework-related questions via email or WhatsApp. See below for the comparisons. The global SLMTA 3 e-learning course not only offered live Office Hour sessions, but also allowed participants to email facilitators their homework questions any time.

<b>Office Hours Format</b>	<b>Synchronous Live Office Hours (Virtual or face-to-face)</b>	<b>Asynchronous Using Email or WhatsApp</b>
<b>Advantage</b>	Live sessions stimulate group discussion and peer-to-peer sharing. Verbal Q&A sessions (as in live sessions) save time and allow instantaneous	Participants may send their questions any time. Participants, as well as facilitators, who receive the questions may

Office Hours Format	Synchronous Live Office Hours (Virtual or face-to-face)	Asynchronous Using Email or WhatsApp
	<p>follow-ups if the answers given are not understood.</p> <p>Questions and answers are heard by all in attendance, benefitting everyone.</p>	<p>respond. This facilitates participant networking.</p>
<b>Disadvantage</b>	<p>Time for scheduled office hours may not be convenient for some participants.</p>	<p>There may be a time lag between questions sent and answers received.</p> <p>Questions/answers sent via email may not reach everyone.</p> <p>Communications via text (as in email and WhatsApp) may not be as effective as verbal exchange of information (as in live sessions) in terms of speed, details, and clarity.</p>

### Other course components

Another decision you need to make is, besides the weekly office hours, webinars, and self-study/homework assignments, will you offer the other two components? See table below for details.

Additional Course Component	What is this? Why is it important?	Tips on implementation
<b>Peer support</b>	<p>Participants often feel isolated and overwhelmed during virtual learning. Interpersonal interactions offer the needed motivational boosts. On-line discussion forum and WhatsApp platform provide the means for participants to communicate with each other and share their challenges and ideas.</p>	<p><b>WhatsApp</b> – primary communication channel with and among the participants due to its easy reach and instant responses; works the best when the course coordinator is able to respond ASAP when any issue arises</p> <p><b>On-line discussion forum</b> – need a webmaster to help manage this. Forum must be monitored regularly and responses provided accordingly. The course director needs to provide thought-provoking questions to elicit comments.</p>
<b>ECHO series</b>	<p>A learning collaborative that facilitates mentoring (by master trainers) and peer-to-peer learning for laboratory improvement projects. It complements the e-learning and ensures immediate impact of the course.</p>	

## Determine the total course duration and the course schedules

The global SLMTA 3 e-learning course is 15 weeks long. Refer to the Appendices for more information.

- [Appendix C](#): Sample webinar agenda
- [Appendix D](#): Sample course schedules and weekly workload
- [Appendix E](#): Weekly Homework Requirements

	Longer Duration	Shorter Duration
<b>Advantage</b>	Course is less intense because the weekly workload is lower. Participants will have more time to implement improvement in their home laboratories.	Shorter duration may be easier for the participants and their organizations to commit to the course.
<b>Disadvantage</b>	People may lose motivation and concentration if the course runs too long.	Course is more intense because of higher workload per week. Participants may not be able to handle it since they still have a full-time job. They will also have less time to implement improvement projects in their home laboratories as the course is progressing, which reduces the impact of the course.

- It is highly recommended that ***each webinar be no longer than 2 hours in duration***. Our experience showed that participants became tired when the session went beyond 2 hours.
- Frequency of the live session (e.g., 1X, 2X, or 3X per week). Factors to consider include:
  - Length of each session – for example, having an one-hour session twice a week.
  - Whether these live sessions are virtual or face-to-face. That is, if face-to-face, how many times will participants be able to leave the workplace to go to training each week?
  - Participants' availability and preference
- Note that ***the office hour must be scheduled at least one day before the homework deadline*** because the main purpose of the office hours is to answer questions about that week's homework.

## Determine the number of facilitators and participants

<b>Factors to Consider</b>	
<b>Number of Facilitators</b>	<b>Number of Participants</b>
<ul style="list-style-type: none"> <li>▪ Areas of expertise – Are your facilitators knowledgeable in all topics in the curriculum? Or are they very specialized? How many facilitators will you need to cover all the content areas of the course?</li> <li>▪ Availability of facilitators – how much time can each facilitator dedicate to this course?</li> <li>▪ Each live session should have at least two facilitators present: one lead facilitator and one co-facilitator.</li> </ul>	<ul style="list-style-type: none"> <li>▪ It depends on the course team’s capacity to review all submitted homework.</li> <li>▪ All homework must be reviewed by facilitators, who will select the best submissions to showcase during the live sessions, and clarify common gaps. Cohort size will depend on the number and capacity of the facilitators to review all the homework each week.</li> </ul>

As a benchmark, the global SLMTA 3 e-learning course employed 3 facilitators and limit the cohort size to 28 participants. Although the class size is limited in accordance with the facilitators’ capacity to review all the homework, countries should encourage all staff from each enrolled participant’s laboratory to attend the live sessions. Completion of the homework should involve all staff members, so do the improvement projects. To make this possible, the course delivery model may need to be virtual instead of face-to-face to minimize impact on work.

## Determine the criteria for course certificates and CPD points

It is important to establish the criteria for certificates of completion and communicate them to the participants at the beginning of the course. The global SLMTA 3 e-learning course uses the following criteria:

<b>Certificates of Course Completion</b>	<b>CPD Points for each webinar</b>
<p>To earn the certificate at the end of the course, participants must fulfill the following requirements:</p> <ul style="list-style-type: none"> <li>▪ Timely attendance and submission of homework (3 strikes and you are out*)</li> <li>▪ Minimum 77% attendance of live sessions (that is, no more than 3 missed live sessions. If a participant missed one session, he/she must view the recording and take a quiz)</li> <li>▪ Timely completion of all course surveys and evaluations</li> </ul> <p>If a participant had 3 violations, he/she will be expelled from the course. A late/missed homework submission or an occurrence of late arrival to a live session is counted a one violation.</p>	<p>The global SLMTA 3 e-learning course was accredited by European Accreditation Council on Continuing Medical Education (EACCME®). Participants must attend the live session and complete a post-webinar survey in order to earn 2 CPD points each week. A total of 30 CPD points was awarded if participants attended all 15 webinars and completed 15 weekly surveys on time. CPD certificates were issued weekly.</p> <p>**Providing CPD credits promotes the course and encourages participation. It also facilitates integration of the course into countries’ in-service training curriculum. Individual countries should follow their own policy and requirements.</p>

## Select the indicators to monitor the course

The global SLMTA 3 e-learning course collects the following data. The course team reviewed the data weekly to identify opportunities for immediate improvement.

Indicators	Notes
<p><b>Course scorecard:</b></p> <ol style="list-style-type: none"> <li># Participants who attended the office hour</li> <li># Participants who attended the webinar</li> <li># Participants who submitted homework timely</li> <li># Participants who attended the webinar on time</li> </ol>	<p>Reported weekly over the course duration Overall average calculated at the end of the course</p> <p>(See Figure 1 below for example)</p>
<p><b># chats as an indicator of participant attention</b></p> <ul style="list-style-type: none"> <li>Total # chats at each webinar</li> <li>Average # chats per participants at each webinar</li> </ul>	<p>Reported weekly over the course duration</p> <p><u>Numerator</u> = Total Number of group chats at a webinar <u>Denominator</u> = Total number of participants at a webinar</p> <p>(See Figure 2 below for example)</p>
<p><b>Dropout rate at each webinar due to internet connectivity issues</b></p>	<p>Reported weekly over the course duration</p> <p><u>Numerator</u> = Number of attendants who lost internet connections at least once and had to re-log into Zoom <u>Denominator</u> = Total number of attendants at a webinar</p> <p>(See Figure 3 below for example)</p>
<p><b>Course completion rate</b></p>	<p>Calculated at the end of the course</p> <p><u>Numerator</u> = Number of participants who met all the criteria and successfully completed the course <u>Denominator</u> = Total number of participants accepted</p>
<p><b>Improvement and outcome measures</b></p>	<p>This may include SLIPTA audit scores (pre vs post), accreditation status (no vs yes), or any indicators for the improvement projects.</p>

Figure 1

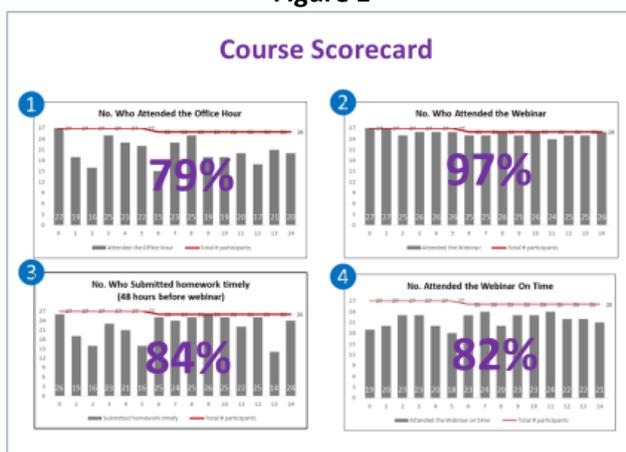


Figure 2

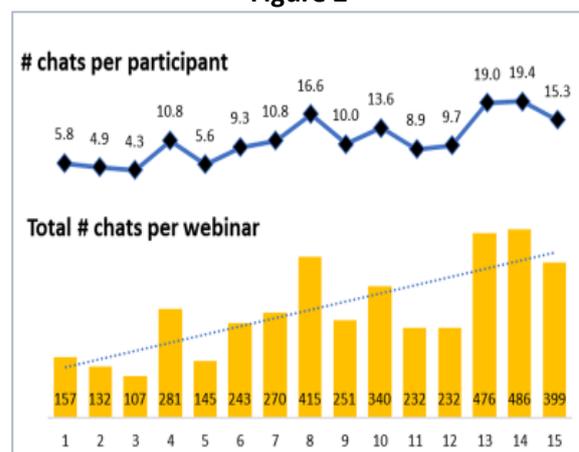
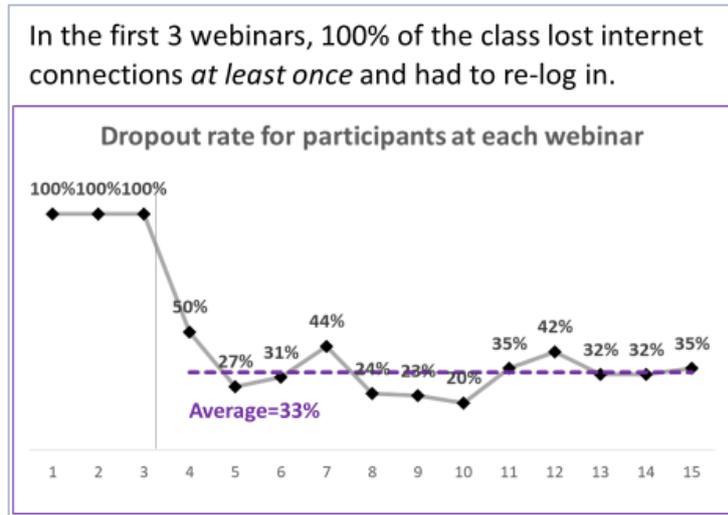


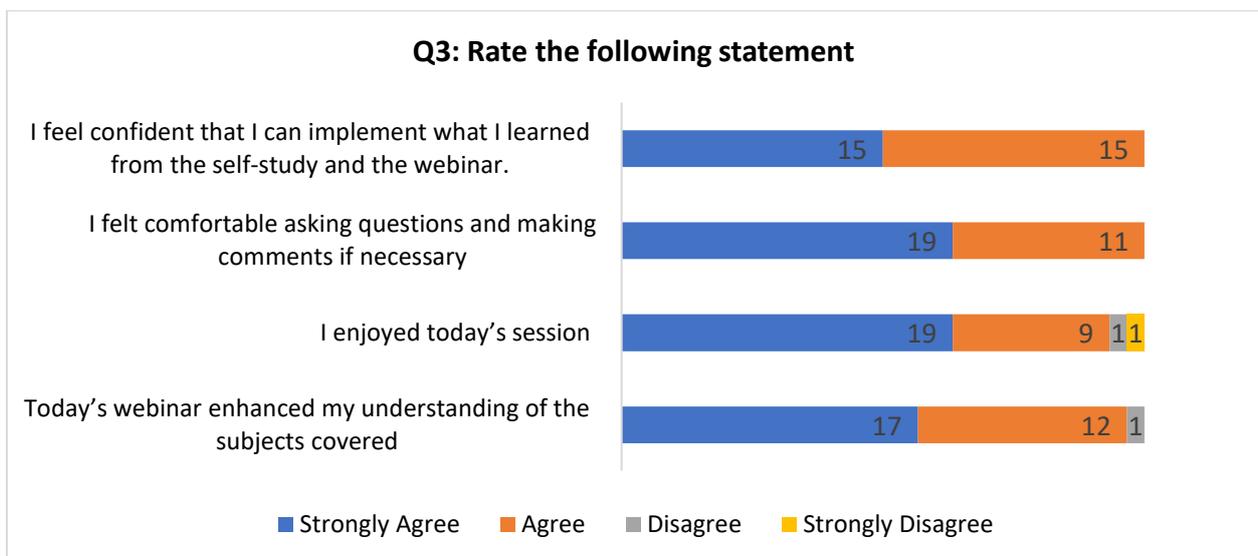
Figure 3



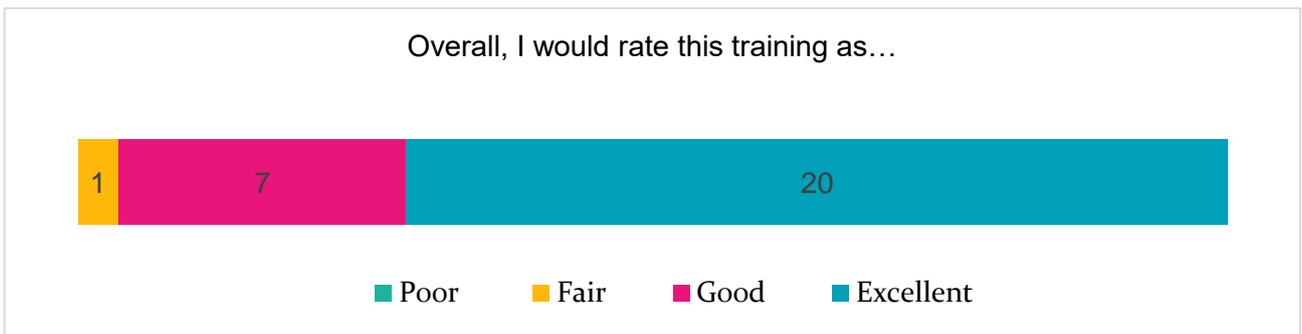
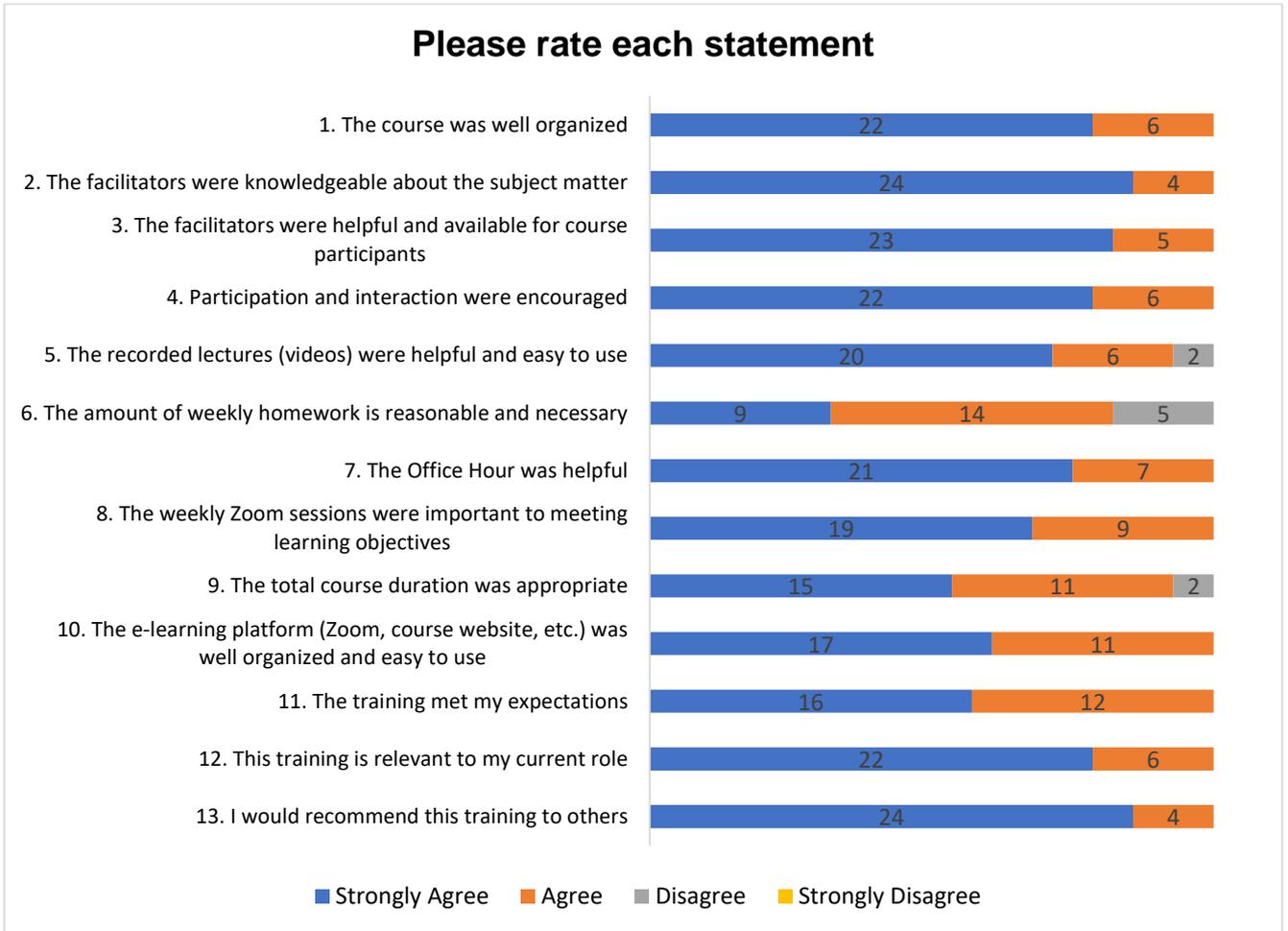
Additionally, we administered 2 surveys (see table below) to collect participant feedback and review the data weekly. Gaps and issues identified from the surveys were addressed immediately. These surveys were administered via SurveyMonkey. An alternative to Survey Monkey is MicroSoft Forms.

Survey	Frequency	Survey tool	Survey Report
Post-webinar survey (short survey)	Weekly, after each webinar (Total number of surveys = 15)	See Appendix F	See Figure 4
Post-module survey (long survey)	At the end of each module (Total number of surveys = 4)	See Appendix G	See Figure 5

Figure 4 – Sample Weekly Survey Report (excluding written comments)



**Figure 5 – Sample End-of-Module Survey Report (excluding written comments)**



## Determine the costs

The table below lists the potential budget items. Also see [Appendix B – Cost comparisons: face-to-face vs e-learning delivery](#).

Line Item	Unit Cost	Description
<b>Virtual training related costs</b>		
Webmaster salary		Countries are responsible for managing country-specific webpages (accessible only by their registered participants). The Headquarters will provide the templates and train in country personnel on how to administer and manage country-specific webpages.
IT support salary		IT support is needed to help troubleshoot any IT related issues such as internet connections and problems with log-in for both facilitators and participants .
Server space		The headquarters will cover the cost of server space if countries are leveraging the course <a href="#">website</a> (both public and restricted access). If the countries are using a different platform (such as Moodle), they will need budget for this item.
Zoom account(s), or alternatives		At a minimum, there needs to be one Zoom account to conduct the e-learning course. If a country plans to record their own (customized) lecture videos, each lecturer will need a Zoom account. One can sign up for a free Zoom account, but the free account restricts each live session to 40 minutes. Zoom's Basic (no-cost) license gives you unlimited time for one-on-one meetings, but group meetings are limited to 40 minutes. With a Zoom Pro license, you can host unlimited group meetings with up to 100 people and can collaborate as long as you need, without worrying about time limits or having to start another meeting. See pricing at <a href="#">link</a> .
DropBox account, or other file-sharing programs		We use <a href="#">DropBox</a> to house our many documents and lecture recordings (mp4 files). This is needed only if you plan to record your own lecture videos or save your live session recordings.
SurveyMonkey account, or alternatives		We use <a href="#">SurveyMonkey</a> to administer the evaluation surveys. You may consider other alternatives, such as MicroSoft Forms for your own course surveys.
Hardware (computer, headset, webcam, etc.)		You may need to purchase necessary hardware for your trainers. It is recommended that they all get a headset to assure better audio quality for both recording and live session facilitation. You may need to purchase webcams if their desktop computers do not come with them.
Internet connections		You may need to cover the costs of data packs for the participants as well as the facilitators.
<b>Face-to-face delivery costs (for live sessions, if applicable)</b>		
Venue hire		

<b>Line Item</b>	<b>Unit Cost</b>	<b>Description</b>
Travel expenses (facilitators)		
Travel expenses (participants)		
Printing and supplies		
<b>Costs applicable to both delivery modes</b>		
Facilitator cost		
Course coordinator cost		
CPD fees		

## Other things to consider

### Which virtual platform should you use for the e-learning course?

The global SLMTA 3 e-learning course uses Zoom and it is an excellent platform for conducting webinars. We highly recommend it. Of course you may consider other platforms. Here, we provide the information from CDC's Center for Global Health Cloud Solutions Group comparing MicroSoft Teams and Zoom.

Microsoft Teams	Zoom
<p>Microsoft Teams is built for collaboration. Yes, you can host video and audio calls, hold channel meetings, and chat using Teams, but what Teams does really well is provide a portal that incorporates other M365 products and functionality into one platform. Not only can your team meet via video, but you can also manage a project, co-author documents, store files, hold channel conversations, and much more. Teams is turnkey digital collaboration at its finest.</p>	<p>Zoom is perhaps the most intuitive videoconferencing tool available today. That's not surprising since that's exactly what it's built for. If you are hosting a larger call like a training class or all-hands meeting, you will find Zoom's features especially useful. Built-in polling, meeting templates, post-call recording with transcripts, and detailed participant reports are a few of the functions that make Zoom a nice option.</p>

The Bottom Line - How do you know when to choose one tool over the other? Our recommendation is to think of Teams as your everyday collaborative workspace. Share files, manage projects, update documents, call coworkers, chat with team members and definitely hold team video meetings...but when you want to host a large webinar with call-in polling and advanced post-call recording features, you may want to consider Zoom.

### Who should be the Zoom account owner?

If you have decided to use Zoom, you will need to purchase a professional Zoom account for your course. Go to Zoom's website ([link](#)) for cost information. We recommend that you purchase a *Meetings*, not *Webinars*, account for your virtual training sessions to facilitate two-way communications. In our experience, **it is the best for the course coordinator to be the course's Zoom account owner/host**, and not a program manager or project officer. The advantages are as follows:

- Recording links are emailed to the account owner. The course coordinator does not have to wait for the links from someone else to manage the MP4 files upload or their distribution to the participants.
- It is easier for the facilitators to reach out to the course coordinator to create poll questions whenever necessary before a live session. Only the account owner can create poll questions.
- The course coordinator can schedule Zoom calls for live sessions and send out calendar invites whenever necessary.

### Determine whether to record the live sessions

Recording live sessions helps those who are unable to attend a session as well as those who have attended it but would like to re-watch the session. Recordings are particularly important in places where internet

connectivity failures are a norm rather than an exception. It is easy to record a session on the Zoom platform. One decision you need to make is how to distribute the recording MP4 files. Will you upload them to a webpage, or just email the recording links to the participants? If the former, who will upload the files and manage the webpage? Where will you store these recording files?

### **Do you plan to offer an incentive program?**

The global SLMTA 3 e-learning course had a virtual incentive program to encourage desired behaviors such as timely attendance, timely homework submission, contribution to discussion forum, best homework, and outstanding participation during live sessions. To create such a program, consider the following:

- What behaviors/criteria will allow a participant to earn points/dollars/awards?
- Earnings should be tallied and published each week as feedback to participants to their performance status. How will the earnings be published or communicated?
- We also played games to help participants earn SLMTA dollars. These games served two purpose: 1) to encourage timely log-in to the live sessions since the fast-paced games were played in the first few minutes of the webinars; and 2) helped participants get to know their classmates since these questions in the games were drawn from participant profiles.

## APPENDIX A – Roles and responsibilities

<p><b>Course Director</b></p>	<ul style="list-style-type: none"> <li>▪ Take full responsibilities for the course</li> <li>▪ Design the hybrid delivery model for the course</li> <li>▪ Create the implementation plans</li> <li>▪ Engage all key stakeholders, including participant supervisors to ensure they have the time to study</li> <li>▪ Announce the course and screen/select the applicants for each cohort</li> <li>▪ Lead weekly calls with the entire course team to prepare for the next session</li> <li>▪ Analyze and review weekly surveys and course scorecard to identify areas of improvement</li> <li>▪ Provide feedback to course facilitators based on participant feedback and observations to help them improve</li> <li>▪ Attend all live sessions (preferred if feasible)</li> <li>▪ Serve as the main point of contact for communication with the course participants.</li> <li>▪ If the Zoom account owner,             <ul style="list-style-type: none"> <li>○ Set up the weekly Zoom meetings and send out calendar invites.</li> <li>○ Program all poll questions</li> </ul> </li> </ul>
<p><b>Course Facilitators</b></p>	<p><b>Lead facilitator:</b></p> <ul style="list-style-type: none"> <li>▪ Adhere to the guiding principles / SOP for the design of the live sessions</li> <li>▪ Prepare for the session; schedule dress rehearsals as necessary</li> <li>▪ Have contingency plans in case of connectivity failure</li> <li>▪ Facilitate the office hour and answer questions related to the homework</li> <li>▪ Design and promote special Office Hours for discussion of improvement projects</li> </ul> <p><b>Co-facilitator:</b></p> <ul style="list-style-type: none"> <li>▪ Provide assistance if requested by other facilitators, including monitoring the chat box</li> <li>▪ Be ready to jump in should the lead facilitator cannot facilitate</li> </ul>
<p><b>Course Coordinator</b></p>	<ul style="list-style-type: none"> <li>▪ Serve as the Zoom account host – sending out all Zoom links, building poll questions as requested by the facilitators, making the course director, coordinators, co-facilitators co-hosts during live sessions</li> <li>▪ Record live sessions and work with webmaster to upload the recording files and PowerPoint files within 24 hours after the session</li> <li>▪ Participate in all standing calls, and dress rehearsals if requested by the lead facilitators</li> <li>▪ Serve as the focal person for homework             <ul style="list-style-type: none"> <li>✓ Receive all homework from the participants; follow up on late or missing homework with participants</li> <li>✓ Organize/zip homework files and forward them to facilitators</li> <li>✓ Track homework submissions in a spreadsheet and notify facilitators upon deadline who has not submitted the homework</li> <li>✓ Send out homework answers and other homework documents to the participants as requested</li> </ul> </li> <li>▪ Send reminder to participants before each live session</li> <li>▪ Keep track of all the participant data for the incentive program; update the virtual bank accounts on the website accordingly</li> <li>▪ Manage the discussion forum on the website and the WhatsApp group             <ul style="list-style-type: none"> <li>✓ Respond to all administrative queries and comments</li> </ul> </li> </ul>

	<ul style="list-style-type: none"><li>✓ Alert the course director and facilitators to comments and queries to which they need to respond</li><li>▪ Be present at each live session</li><li>✓ Troubleshoot technical issue for course facilitators and participants</li><li>✓ Record attendance for each session</li><li>✓ Submit final report on participant attendance at each live session</li><li>✓ Assist facilitators in breakout room set-up</li><li>✓ Capture important questions and comments from the chat box</li><li>▪ After each live session:<ul style="list-style-type: none"><li>✓ Manage the generation, collection and monitoring of evidence to show a participant has viewed the recording of a missed live session (all or a portion). Record in the spreadsheet that requirements have (or have not) been fulfilled.</li><li>✓ Issue weekly survey link after each live session. Capture survey results into run charts and present the data regularly.</li></ul></li><li>▪ Track and report all indicators in the course scorecard on a weekly basis</li><li>▪ Other duties as assigned by the course director or facilitators</li></ul>
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## APPENDIX B – Cost comparisons: face-to-face vs e-learning delivery

The following cost table is provided for your reference only.

	Classroom	eLearning	
<b>Cost Savings (=\$107,074)</b>			
<b>Travel expenses &amp; per diem</b>			
3 facilitators (from outside Johannesburg)	\$ 12,855	\$ -	
24 participants (from outside Johannesburg)	\$ 99,910	\$ -	\$ 125,799
<b>Venue &amp; daily transportation</b>	\$ 10,239	\$ -	
<b>Printing &amp; supplies</b>	\$ 2,795	\$ -	
<b>Facilitator delivery cost</b>	\$ 15,686	\$ 15,686	
<b>CPD fee</b>	\$ 144	\$ 3,700	
<b>Course Coordinator</b>	-	\$ 6,800	
<b>IT costs</b>			
Webmaster		\$ 3,500	
Server space		\$ 1,000	\$ 15,169
Zoom Accounts		\$ 796	
DropBox		\$ 240	
Hardware and internet connection (for course coordinator only)		\$ 2,833	
<b>TOTAL</b>	<b>\$ 141,629</b>	<b>\$ 34,555</b>	

\*Classroom costs: We calculated the costs that would normally incur if the course had been taught in Johannesburg, South Africa  
 \*\*Curriculum development costs are not included in this table. The recording of lecture videos cost \$31,000.

\*\*SurveyMonkey account – The cost is not listed here because we used an account held by CDC’s Center for Global Health.

\*\*Zoom account – In addition to the course Zoom account, we purchased a professional Zoom account for each facilitator so they could make lecture recordings for the course website. Even if the in-country facilitators are not expected to make lecture recordings, you may want to consider, budget permitting, providing a paid account to each facilitator so they can practice and become proficient with the Zoom platform. Anyone can sign up for a free Zoom account, but it limits each meeting to 40 minutes.

## APPENDIX C – Sample Webinar Agenda

**Webinar Agenda for Cohort 2****July 9<sup>th</sup> - October 14<sup>th</sup> 2021**

Week #	Date	Duration	Activity	Facilitator
1	9-July	0:40	Welcome and introduction/ice breaker	Katy
		0:40	Zoom training	
		0:40	Course Overview	
2	16-Jul	0:15	Opening: Welcome/QMS 1 Overview	Elde
		0:10	0.0 Workshop Introduction	Elde
		0:15	1.1 Management Responsibility Introduction	Elde
		0:20	1.2.1 Process Mapping (debrief; Q&A)	Beatrice
		0:45	1.2.2 Using the Model for Improvement (debrief; Q&A)	Elde
		0:15	Closing: Homework/Announcement	Elde
3	23-Jul	0:10	Opening & Welcome	Beatrice
		1:05	1.2.3 Managing Performance (conduct; debrief; Q&A)	Beatrice
		0:30	1.2.4 Creating a Management Calendar (debrief; Q&A)	Beatrice
		0:15	Closing: Homework/Announcement	Beatrice
4	30-Jul	0:10	Opening & Welcome	Elde
		0:25	1.3.1 Designing a Continuously Improving QMS (debrief; Q&A)	Elde
		0:45	1.3.2 Designing Fit-for-Purpose Processes (debrief; Q&A)	Elde
		0:10	1.4.1 How to Establish Your Documentation System (debrief; Q&A)	Elde
		0:15	1.4.2 Documents Process Map (debrief; Q&A)	Elde
		0:15	Closing: Homework/Announcement	Elde
5	6-Aug	0:10	Opening & Welcome	Beatrice
		0:25	1.4.3 Why Was the Outdated Version Used? (debrief; Q&A)	Beatrice
		0:15	1.4.4 Records Process Map (debrief; Q&A)	Elde
		0:20	1.5 Planning and Conducting a Staff Meeting (debrief; Q&A)	Elde
		0:15	2.1.1 Personnel Management Process Map (debrief; Q&A)	Elde
		0:20	2.1.2 Competency Assessment Program (debrief; Q&A)	Elde
		0:15	Closing: Homework/Announcement	Elde
6	13-Aug	0:10	Opening & Welcome	Elde
		0:25	2.1.3 Creating a Personnel File (debrief; Q&A)	Elde
		0:20	2.1.4 How Do You Assign Personnel to Tasks? (debrief; Q&A)	Elde
		0:05	2.2.1 Process + Structure = Outcome (debrief; Q&A)	Beatrice
		0:15	2.2.2 Improving a Problem Floor Plan (debrief; Q&A)	Beatrice
		0:30	2.2.3 Mapping-out the Floor Plan of Your Laboratory (debrief; Q&A)	Beatrice
		0:15	Closing: Homework/Announcement	Beatrice
7	20-Aug	0:10	Opening & Welcome	Beatrice
		0:25	2.2.4 Workstation Set-Up (debrief; Q&A)	Beatrice
		0:20	2.2.6 Assessing Safety Incidents (debrief; Q&A)	Beatrice
		0:30	2.2.7 Conducting a Safety Audit (debrief; Q&A)	Beatrice
		0:20	2.2.8 What did we see on the Site Visits? (debrief; Q&A)	Beatrice
		0:15	Closing: Homework/Announcement	Beatrice
8	27-Aug	0:10	Opening & Welcome	Elde
		0:20	2.3.1 Purchasing and Inventory Process Map (debrief; Q&A)	Elde
		0:15	2.3.2 Forecasting and Calculating Ordering Amounts (debrief; Q&A)	Beatrice
		0:15	2.3.3 Did You Receive What You Ordered? (debrief; Q&A)	Elde
		0:15	2.4.1 Equipment Management Process Map (debrief; Q&A)	Elde
		0:15	2.4.2 Creating a Maintenance and QC Log (debrief; Q&A)	Elde
		0:15	2.4.3 Making a Service Call (debrief; Q&A)	Elde

Week #	Date	Duration	Activity	Facilitator
		0:15	Closing: Homework/Announcement	Elde
9	3-Sep	0:10	Opening & Welcome	Beatrice
		0:15	3.1.1 Specimen Management (debrief; Q&A)	Beatrice
		0:10	3.1.2 Packaging Specimens for Shipment to Referral Sites	Beatrice
		1:00	3.1.3 Tracking Referral Specimens (conduct; debrief; Q&A)	Beatrice
		0:10	3.2.2 Using Standard Operating Procedures (debrief; Q&A)	Elde
		0:15	Closing: Homework/Announcement	Elde
		10	10-Sep	0:10
0:30	3.2.3 Is QC That Important? (debrief; Q&A)			Elde
0:15	3.2.4 Is There More to QC Than Just Plotting the Data? (debrief; Q&A)			Elde
0:25	3.3.1 Validation of Test Results (debrief; Q&A)			Beatrice
0:25	3.3.2 Is the Test Report Ready to be Released? (debrief; Q&A)			Beatrice
0:15	Closing: Homework/Announcement			Beatrice
11	17-Sep			0:10
		0:35	3.3.3 Customer Service (debrief; Q&A)	Beatrice
		0:15	3.3.4 Meet the Clinician (debrief; Q&A)	Beatrice
		0:15	4.1.1 Overview of Occurrence Management	Elde
		0:15	4.1.2 Mapping Nonconformities (debrief; Q&A)	Elde
		0:15	4.1.3 Just Culture (debrief; Q&A)	Elde
		0:15	Closing: Homework/Announcement	Elde
12	24-Sep	0:10	Opening & Welcome	Elde
		0:25	4.1.4 Selecting the Winning Problem(s)(debrief; Q&A)	Elde
		0:30	4.1.5 Root Cause Analysis (Assignment 1&2) (debrief; Q&A)	Janet
		0:30	4.1.6 Preventive Action (debrief; Q&A)	Elde
		0:10	4.2.1 Introduction to Internal Audit (debrief; Q&A)	Janet
		0:15	Closing: Homework/Announcement	Janet
13	1-Oct	0:10	Opening & Welcome	Janet
		0:30	4.1.5 Root Cause Analysis (Assignment 3 & 4) (debrief; Q&A)	Janet
		0:10	4.2.2 How to set up an Internal Audit Program (debrief; Q&A)	Janet
		0:30	4.2.3 Internal Audit Planning and Preparation (debrief; Q&A)	Janet
		0:25	4.2.4 Internal Audit Methods (debrief; Q&A)	Janet
		0:15	Closing: Homework/Announcement	Janet
14	8-Oct	0:10	Opening & Welcome	Janet
		1:10	4.2.5 Audit Techniques and NCE Writing (conduct &debrief; Q&A)	Janet
		0:25	4.2.6 Audit Reporting (debrief; Q&A)	Janet
		0:15	Closing: Homework/Announcement	Janet
15	15-Oct	0:10	Opening & Welcome	Elde
		1:20	4.3 Management Review (conduct; debrief; Q&A)	Elde
		0:30	Closing/Announcement	Katy

## APPENDIX D – Sample course schedules and weekly course workload

Below is the course schedules for Cohort 2 of the global SLMTA 3 e-learning course.

- Weekly webinars took place on Friday, each lasted 2 hours.
- Homework, in preparation of that week’s webinar, was due on each Wednesday, which gave facilitators 48 hours to review all the submissions.
- The hour-long office hours took place on Tuesday, provided assistance for participants to complete their homework ahead of the homework deadline on Wednesday.
- The estimated workload does not include attending the weekly live sessions (office hours and the webinar). Each week’s homework is tied to the topics covered in that week’s webinar on Friday – see Appendix C for topics covered in each webinar.

Week	Office Hour Date 3:30-4:30 PM Eastern African Time	Live Session Date 2:00-4:00 PM Eastern African Time	Estimated Time Required for Self-Study/ Homework (HH:MM)	Homework Due Date
1. Orientation**	6-July	9-July	2:00	7-July
2. Week 1	13-July	16-Jul	4:28	14-July
3. Week 2	20-July	23-Jul	2:34	21-Jul
4. Week 3**	27-July	30-Jul	2:08	28-Jul
5. Week 4	3-Aug	6-Aug	3:56	4-Aug
6. Week 5	10-Aug	13-Aug	6:04	11-Aug
7. Week 6	17-Aug	20-Aug	5:03	18-Aug
8. Week 7	24-Aug	27-Aug	4:14	25-Aug
9. Week 8**	31-Aug	3-Sep	2:46	1-Sep
10. Week 9	7-Sept	10-Sep	1:54	8-Sep
11. Week 10**	14-Sept	17-Sep	2:48	15-Sep
12. Week 11	21-Sept	24-Sep	6:47	22-Sep
13. Week 12	28-Sept	1-Oct	3:24	29-Sep
14. Week 13	5-Oct	8-Oct	1:52	6-Oct
15. Week 14	12-Oct	15-Oct	1:20	13-Oct

## APPENDIX E – Weekly Homework Requirements

### Weekly Assignments and Due Dates (Cohort 2)

Week	Due Date	Which Homework is due?
<b>0</b>	7-July	Top-four priority gaps based on your laboratory's most recent audit
<b>1</b>	14-July	0.0. Workshop Introduction 1.0. QMS 1 Overview 1.1. Management Responsibility Introduction 1.2.1. Process Map 1.2.2. Using the Model for Improvement
<b>2</b>	21-Jul	1.2.3. Managing Performance: The Balance Scorecard 1.2.4. Management Calendar
<b>3</b>	28-Jul	1.3.1. Designing a Continuously Improving QMS 1.3.2. Designing Fit-for-Purpose Processes 1.4.1. Introduction to documentation system 1.4.2. Document Process Map
<b>4</b>	4-Aug	1.4.3. Why was the outdated version used 1.4.4. Records Process Map 1.5. Planning and Conducting Staff Meeting 2.0. Introduction to QMS 2 2.1.1. Personnel Management Process Map 2.1.2. Competency Assessment Program
<b>5</b>	11-Aug	2.1.3. Creating A Personnel File 2.1.4. How Do You Assign Personnel To Tasks? 2.2.1. P + S = Outcome 2.2.2. Improving a Problem Floor Plan 2.2.2. Improving a Problem Floor Plan 2.2.3. Mapping out and Improving the Floor Plan of your Lab
<b>6</b>	18-Aug	2.2.4. Workstations Set-up (part 1) 2.2.6. Assessing Safety Incidents 2.2.7. Conducting a Safety Audit
<b>7</b>	25-Aug	2.3.1. Purchasing and Inventory Process Map 2.3.2. Forecasting and calculating order amounts 2.3.3. Did You Receive What You Ordered? 2.4.1. Equipment Process Map 2.4.2. Creating A Maintenance and QC Log 2.4.3. Making A Service Call
<b>8</b>	1-Sep	3.1.2. Packaging Specimens for Shipment to Referral Sites 3.1.3. Tracking Referral Specimens 3.2.1. Examination Phase Overview 3.2.2. Using Standard Operating Procedures
<b>9</b>	8-Sep	2.2.4. Workstations Set-up (part 2) 3.2.3. Is QC that important? 3.2.4. Is There More to QC than Just Plotting Data? 3.3.1. Validation of Test Results 3.3.2. Is the test report ready to be released?
<b>10</b>	15-Sep	3.3.3. Customer Service 3.3.4. Meet the Clinician 4.0. QMS 4 Overview 4.1.1. Occurrence Management System – Overview 4.1.2. Mapping Nonconformities (NCE) 4.1.3. Just Culture
<b>11</b>	22-Sep	4.1.4. Selecting the Winning Problem

Week	Due Date	Which Homework is due?
		4.1.5 Root Cause Analysis (RCA) <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• C - Assignment packages 1 and 2</li> </ul> 4.1.6 Preventive Action 4.2.1 Introduction to Internal audit
<b>12</b>	29-Sep	4.1.5 Root Cause Analysis (RCA) <ul style="list-style-type: none"> <li>▪ C – Assignment packages 3 &amp; 4</li> </ul> 4.2.2 How to Set up an Internal Audit Program 4.2.3 Internal Audit Planning and Preparation 4.2.4 Internal audit methods
<b>13</b>	6-Oct	4.2.5 Audit Techniques and NCE Writing 4.2.6 Audit Reporting
<b>14</b>	13-Oct	4.3 Management Review

## PRE-COURSE HOMEWORK

Activity	What you need	What you do	What to submit
Complete the homework BEFORE the mandatory Office Hour on <b>July 6</b>	<a href="#">Navigating the SLMTA 3 e-learning website</a>	<ul style="list-style-type: none"> <li>▪ Review the document and explore the course <a href="#">website</a> to become familiar with it</li> <li>▪ Complete your Personal Profile on the course website</li> <li>▪ Class login information will be sent to you in a separate email.</li> </ul>	None – bring questions, if any, to the office hour
	<a href="#">How to Access ISO 15189 cloud copy</a>	Review the document and confirm you can access the ISO cloud copy without problems (password will be sent to you in a separate email).	
	<a href="#">Zoom User’s Guide</a>	Review the document: <ul style="list-style-type: none"> <li>▪ View the two Zoom training videos (links provided on Page #1)</li> <li>▪ Set up a free Zoom account</li> <li>▪ Practice all the steps</li> </ul> Have the <a href="#">Zoom User’s Guide</a> available for reference during the July 6 <sup>th</sup> Office Hour and July 9 <sup>th</sup> Orientation session	
Bring your questions about this homework, if any, to the Office Hour on <b>July 6</b>	Most recent external or internal audit of our laboratory	<ul style="list-style-type: none"> <li>▪ Summarize, in one page, current status of Quality Management Systems (QMS) in your laboratory, including scope and outcomes of last QMS assessment (external and/or Internal) and non-conformities identified (Major and Minor).</li> <li>▪ State top-four priority gaps you hope to address through participation in SLMTA 3 workshop. If possible, state in the following format:  <i>To (increase/decrease) _____ (metric) from ____ (baseline measure) to ____ (targeted measure) by ____ (month/year).</i> </li> </ul>	The completed one-page summary and top 4 gaps  <b>July 7, 2021</b>

## QMS 1

Activity	What you need	What you do	What to submit
<b>0.0. Workshop Introduction</b>			
View the recorded lecture BEFORE doing the homework	Homework: Workshop Introduction Quiz	Complete the quiz	The completed Homework Submission deadline: July 14, 2021
<b>1.0 QMS 1 Overview</b>			
View the recorded lecture BEFORE doing the homework	Homework: QMS 1 Overview Quiz	Complete the quiz	The completed Homework Submission deadline: July 14, 2021
<b>1.1 Management Responsibility Introduction</b>			
View the recorded lectures BEFORE doing the homework	Homework: Management Responsibility Introduction Quiz	Complete the quiz	The completed Homework Submission deadline: July 14, 2021
<b>1.2.1 Process Map</b>			
View the recorded lectures BEFORE doing the homework	Homework: Process Mapping Cards	Using the cards and map out the process flow by arranging the cards in the right order	The completed process map - the process map could be a photograph of the arranged cards, or electronically produced in a Microsoft PowerPoint or Word document. Submission deadline: July 14, 2021
<b>1.2.2 Using the Model for Improvement</b>			
Do this BEFORE viewing the recorded lectures	Handout 1: The Model for Improvement (XC 04) Handout 2: Using Metrics for Improvement (XC 05) Handout 3: Tools for Analysis (XC 06) Handout 4: Using Change Concepts for Improvement (XC 07) Homework: Reading Assignment Quiz Worksheet 2: Quality Improvement Project Plan (XC 11)	Read Handouts 1-4 and answer the questions in Homework: Reading Assignment Quiz  Familiarize with the different sections of Worksheet 2	The completed Homework Submission deadline: July 14, 2021

## QMS 1

Activity	What you need	What you do	What to submit
Do this BEFORE the live session	Handout 5: Data for Sample Rejection (XC 08) Worksheet 3: Sample Rejection Quality Improvement Project Plan (XC 12)	Analyze Handout 5 and complete pages 1 and 2 of Worksheet 3	The completed Worksheet 3 Submission deadline: July 14, 2021
<b>1.2.3 Managing Performance: The Balance Scorecard</b>			
View the recorded lectures BEFORE doing the homework	Job Aid 4: Quality Indicator Program (1-05)	Read	The completed quiz (Worksheet 1)
	Worksheet 1: Quality Indicator Quiz (XC 19)	Complete the quiz	The completed process map with quality indicator arrows – deliverable may be a photograph of the completed assignment or electronically produced Word or PowerPoint document.  Submission deadline: July 21, 2021
		Relate quality indicators to Laboratory Processes by placing key quality indicator arrows on process map to indicate the point at which it measures the process.	
<b>1.2.4 Management Calendar</b>			
View the recorded lectures BEFORE doing the homework	Job Aid 4: Creating and Effective Calendar (126) Worksheet: Calendar (125) Handout 1: Tasks to be scheduled (123)	Review <u>Job Aid 4</u> and complete the Calendar Worksheet (for 3 months) using <u>Handout 1</u>	The completed Worksheet: Calendar Submission deadline: July 21, 2021
<b>1.3.1 Designing a Continuously Improving QMS</b>			
View the recorded lectures BEFORE doing the homework	ISO 15189: 2012 Standard Handout: Model Overview (1-11) Worksheet: Process-based Model 1-11A	Reorganize the 15 Management Requirements and 10 Technical Requirements of ISO 15189:2012 by assigning them into one of the 4 elements (Management Responsibility; Resource Management; Path of Workflow; Measurement, Analysis and Improvement) of the Worksheet. Please follow instructions provided.	The completed Worksheet: Process-based Model  Submission deadline: July 28, 2021
<b>1.3.2 Designing Fit-for-Purpose Processes</b>			
View the recorded lectures BEFORE doing the homework	Homework: Designing Fit-for-Purpose Processes Quiz	Complete the quiz	The completed Homework Submission deadline: July 28, 2021

## QMS 1

Activity	What you need	What you do	What to submit
<b>1.4.1 Introduction to documentation system</b>			
View the recorded lectures BEFORE doing the homework	Homework: Introduction to documentation system Quiz	Complete the quiz	The completed Homework Submission deadline: July 28, 2021
<b>1.4.2 Document Process Map</b>			
View the recorded lectures BEFORE doing the homework	<a href="#">Job Aid: Document Process Map (2-35)</a> <a href="#">Job Aid: Document Process Steps</a>	Read the two job aids and create your own laboratory's document process map.	Your laboratory's document process map – deliverable may be a photograph of the completed assignment or electronically produced Word or PowerPoint document. Submission deadline: July 28, 2021
<b>1.4.3 Why was the outdated version used</b>			
View the recorded lectures BEFORE doing the homework	Job Aid: Documents and Records (1007) Handout: Glucose Coversheet (1001) Worksheet 1: Master File Index (1002) Worksheet 2: Scenarios (1003) Worksheet 3: Scenario A (AFP)(1004) Worksheet 4: Scenario B (Critical) (1005) Worksheet 5: Scenario C (Hgb) (1005) Worksheet 6: Document Elements (2-39)	Review all documents and answer questions on Worksheet 2 and Worksheet 6. For worksheet 2, make the appropriate changes on Worksheets 3,4 and 5 to reflect your answers.	Completed Worksheet 2, 3,4,5 and Worksheet 6 homework Submission deadline: August 4, 2021
<b>1.4.4 Records Process Map</b>			
View the recorded lectures BEFORE doing the homework	Job Aid: Process Map (2-42) Job Aid: Record Process Map Steps	Read the two job aids and create your own laboratory's record process map	Your laboratory's record process map – deliverable may be a photograph of the completed assignment or electronically produced Word or PowerPoint document. Submission deadline: August 4, 2021

## QMS 1

Activity	What you need	What you do	What to submit
<b>1.5 Planning and Conducting Staff Meeting</b>			
View the recorded lectures BEFORE doing the homework	<a href="#">Job Aid 1: Internal Communications Plan (2-09)</a> Worksheet: Internal Communications Plan	Read Job Aid 1 and complete t Worksheet: Internal Communications Plan	The completed Worksheet Submission deadline: August 4, 2021

## QMS 2

Activity	What you need	What you do	What to submit
<b>2.0 Introduction to QMS 2</b>			
View the recorded lecture BEFORE doing the homework	Homework: Introduction to QMS 2 Quiz	Complete the quiz	The completed Homework Submission deadline: August 4, 2021
<b>2.1.1 Personnel Management Process Map</b>			
View the recorded lectures BEFORE doing the homework	Job Aid: Personnel Process Map (2-05) Job Aid: Personnel Process Map Steps	Read both job aids and create your own laboratory's personnel management process map	Your laboratory's personnel management process map – deliverable may be a photograph of the completed assignment or electronically produced Word or PowerPoint document. Submission deadline: August 4, 2021
<b>2.1.2 Competency Assessment Program</b>			
View the recorded lectures BEFORE doing the homework	Quality Manual and SOPs from your own laboratory Handout: Competency Evaluation Procedure (127) <i>Use this handout ONLY when your lab does not have Quality Manual and SOPs on Competency Assessment</i> Worksheet: Competency Desk Review	Review your laboratory's Quality Manual and SOPs, and complete Worksheet: Competency Desk Review	The completed Worksheet Submission deadline: August 4, 2021
<b>2.1.3 Creating A Personnel File</b>			
View the recorded lectures BEFORE doing the homework	Personnel process map of your laboratory Worksheet: Personnel File	Complete Worksheet: Personnel File	The completed Worksheet Submission deadline: August 11, 2021
<b>2.1.4 How Do You Assign Personnel To Tasks?</b>			
View the recorded lectures BEFORE doing the homework	Handout 1: Duty Scheduling Scenario Handout 2: Workload Statistics Handout 3: Workstation Assignments	Complete Worksheet: Duty Roster Schedule	The completed Worksheet Submission deadline: August 11, 2021

## QMS 2

Activity	What you need	What you do	What to submit
	Worksheet: Duty Roster Schedule		
<b>2.2.1 P + S = Outcome</b>			
View the recorded lectures BEFORE doing the homework	ISO15189	Review requirements for laboratory infrastructure	A photograph or scan of the improved layout Submission deadline: August 11, 2021
	Handout 1: Specimen Flow (101) Handout 2: Sample Floor Plan (102) Handout 3: Diagram with Equipment (103)	Review before watching recording 2.2.1-3	
	Worksheet 1: Floor Plan (106) Worksheet 2: Equipment Cut-outs (107)	Use the equipment cut-outs to redesign and improve the layout	
	Handout 3: Diagram with Equipment (103) Handout 4: Observed Steps	Map observed steps unto floor plan	
<b>2.2.2 Improving a Problem Floor Plan</b>			
View the recorded lectures BEFORE doing the homework	Handout 1: Problem Floor Plan (109)	Review before watching recording 2.2.2-1	A photograph or scan of the improved layout Submission deadline: August 11, 2021
	Worksheet 1: Floor Plan (111) Worksheet 2: Equipment Cut-outs (112) Pencil, Eraser, Glue stick	Use the cut outs and improve the problem floor plan	
<b>2.2.3 Mapping out and Improving the Floor Plan of your Lab</b>			
View the recorded lectures BEFORE doing the homework	Paper Worksheet 1: Cut-outs for Unmovable Items (113) Worksheet 2: Cut-outs for Workbench (114)	Map out the Floor Plan of your Laboratory	A photo/scan of completed step 3 Submission deadline: August 11, 2021
	Paper Worksheet 1: Cut-outs for Unmovable Items (113)	Use cutouts of unmovable objects and workbenches to design the layout of your laboratory and mark the path of workflow of the process most performed in that space.	A photo/scan of completed step 4 Submission deadline: August 11, 2021

## QMS 2

Activity	What you need	What you do	What to submit
	Worksheet 2: Cut-outs for Workbench (114)  Paper Worksheet 1: Cut-outs for Unmovable Items (113) Worksheet 2: Cut-outs for Workbench (114) Worksheet 3: Cut-outs for Movable Items (115)	Rearrange moveable items to improve the layout of your laboratory and improve the path of workflow.	A photo/scan of completed step 9  Submission deadline: August 11, 2021
<b>2.2.4 Workstations Set-up</b>			
See "What you do" column	Job Aid: 5S Handout 1: MSDS Sheet (XC23) Handout 2: Duties for Workstation (XC24) Handout 3: Environment & Temperature Chart (XC 25) Handout 4: Safety Signs (XC26) Handout 5: Maintenance Log (XC27) Handout 6: Reagent Log (XC28) Handout 7: Corrective Action Log (XC29) Handout 8: Workstation Critical Value List (XC 30) Handout 9: Signatory Cover Sheet Example (XC 31) Handout 10: Test-specific SOP Example (XC32) Handout 11: Daily QC Log (XC33) Handout 12: Levey-Jennings (L-J) Chart (XC34) Handout 13: Quality Indicator	Review BEFORE watching the recorded lectures  Follow guidance and instruction in recorded lecture to complete activity with your laboratory team	Completed Homework  Submission deadline: August 18 <sup>th</sup> and September 8 <sup>th</sup> , 2021

## QMS 2

Activity	What you need	What you do	What to submit
	Monthly Tally (XC 35) Handout 14: Restricted Access Sign (XC36) Handout 15: Report Form (XC37) Handout 16: Occurrence Report (XC38) Handout 17: Generic Analyzer Examination Process (2-12) Job Aid: Guiding Principles for Workstation Set-up (2-13) Homework		
<b>2.2.6 Assessing Safety Incidents</b>			
View the recorded lectures BEFORE doing the homework	Worksheet: Occurrence Report Form (201)	Complete Worksheet: Occurrence Report Form for Safety Incident 2	Completed Worksheet  Submission deadline: August 18, 2021
<b>2.2.7 Conducting a Safety Audit</b>			
View the recorded lectures BEFORE doing the homework	WHO-AFRO SLIPTA Checklist Worksheet 1: Photo Audit Answer sheet (205)	Review section 12 of checklist: Facilities and Safety  Complete Worksheet 1: Photo Audit Answer Sheet	Completed Worksheet 1  Submission deadline: August 18, 2021
<b>2.3.1 Purchasing and Inventory Process Map</b>			
View the recorded lectures BEFORE doing the homework	Job Aid: Purchasing and Inventory Process Map (2-17) Job Aid: Purchasing and Inventory Process Map Steps	Read both job aids and create your own laboratory's purchasing and inventory process map	Your laboratory's purchasing and inventory process map – deliverable may be a photograph of the completed assignment or electronically produced Word or PowerPoint document.  Submission deadline: August 25, 2021
<b>2.3.2 Forecasting and calculating order amounts</b>			
See "What you do" column	Job Aid: Calculating Supplies (403) Worksheet 1: Urinalysis (401)	Review the job aid BEFORE watching recording 2.3.2-1  Complete the worksheet AFTER watching the recorded lecture	The completed Urinalysis Worksheet  Submission deadline: August 25, 2021

## QMS 2

Activity	What you need	What you do	What to submit
<b>2.3.3 Did You Receive What You Ordered?</b>			
View the recorded lectures BEFORE doing the homework	Homework: Did You Receive What You Ordered Quiz	Complete the quiz	The completed Homework  Submission deadline: August 25, 2021
<b>2.4.1 Equipment Process Map</b>			
View the recorded lectures BEFORE doing the homework	Job Aid 1: Equipment Process Map (2-25) Job Aid: Equipment Process Map Steps	Read both job aids and create your own laboratory's equipment process map	Your laboratory's equipment process map – deliverable may be a photograph of the completed assignment or electronically produced Word or PowerPoint document.  Submission deadline: August 25, 2021
<b>2.4.2 Creating A Maintenance and QC Log</b>			
View the recorded lectures BEFORE doing the homework	Homework: Creating A Maintenance and QC Log Quiz	Complete the quiz	The completed Homework  Submission deadline: August 25, 2021
<b>2.4.3 Making A Service Call</b>			
View the recorded lecture BEFORE doing the homework	Homework: Making A Service Call Quiz	Complete the quiz	The completed Homework  Submission deadline: August 25, 2021

## QMS 3

Activity	What you need	What you do	What to submit
<b>3.1.2 Packaging Specimens for Shipment to Referral Sites</b>			
View the recorded lecture BEFORE doing the homework	Homework: Packaging Specimens for Shipment to Referral Sites.	Perform activity with your laboratory and submit pictorial evidence. Homework	The completed Homework Submission deadline: September 1, 2021
<b>3.1.3 Tracking Referral Specimens</b>			
View the recorded lectures BEFORE doing the homework	Handout 1: Specimen Referral Log (709) Worksheet 1: Referral Log Questions (711)	Review Handout 1 and answer questions on Worksheet 1: Referral Log Questions	The completed Worksheet 1 Submission deadline: September 1, 2021
<b>3.2.1 Examination Phase Overview</b>			
View the recorded lecture BEFORE doing the homework	Homework: Examination Phase Overview Quiz	Complete the quiz	The completed Homework Submission deadline: September 1, 2021
<b>3.2.2 Using Standard Operating Procedures</b>			
View the recorded lectures before doing the homework	Homework: Using SOP Quiz	Complete the quiz	The completed Homework submission deadline: September 1, 2021
<b>3.2.3 Is QC that important?</b>			
View the recorded lectures BEFORE doing the homework	Handout: Why a QC Program is Essential (604) Worksheet: QC Program questions (605)	Read the handout and answer the questions in Worksheet: QC Program questions	The completed Worksheet Submission deadline: September 8, 2021
<b>3.2.4 Is There More to QC than Just Plotting Data?</b>			
View the recorded lectures BEFORE doing the homework	Homework: Is There More to QC than Just Plotting Data Quiz	Complete the quiz	The completed Homework Submission deadline: September 8, 2021
<b>3.3.1 Validation of Test Results</b>			
View the recorded lectures BEFORE doing the homework	Homework: Validation of Test Results	Answer questions in Homework.	The completed Homework Submission deadline: September 8, 2021

### QMS 3

Activity	What you need	What you do	What to submit
<b>3.3.2 Is the test report ready to be released?</b>			
View the recorded lectures BEFORE doing the homework	Worksheet 1: Laboratory Report (802)	Review Worksheet 1 and identify all the errors	A list of all the errors you have identified in the laboratory report  Submission deadline: September 8, 2021
<b>3.3.3 Customer Service</b>			
View the recorded lectures BEFORE doing the homework	Job Aid 1: Customer Communication Guidelines (901) Job Aid 2: Customer Satisfaction survey (902) Job Aid 3: HCP Questionnaire (3-10)	Review the three job aids. Design a short customer survey (No more than one side of an A4 sheet)	Customer survey for your laboratory  Submission deadline: September 15, 2021
<b>3.3.4 Meet the Clinician</b>			
See "What you do" column	Homework: Meet the Clinician	Brainstorm issues between the laboratory and Clinicians. List three (3) questions you would like to ask Clinicians and three (3) questions you would like Clinicians to ask the laboratory based on the issues identified.	The completed Homework  Submission deadline: September 15, 2021

## QMS 4

Activity	What you need	What you do	What to submit
<b>4.0 QMS 4 Overview</b>			
View the recorded lecture BEFORE doing the homework	Homework: QMS 4 Overview Quiz	Complete the quiz	The completed Homework Submission deadline: September 15, 2021
<b>4.1.1 Occurrence Management System - Overview</b>			
View the recorded lecture BEFORE doing the homework	Homework: Occurrence Management System Overview Quiz	Complete the quiz	The completed Homework Submission deadline: September 15, 2021
<b>4.1.2 Mapping Nonconformities (NCE)</b>			
View the recorded lectures BEFORE doing the homework	Job Aid 1: NCE Process Flowchart (4-03) Job Aid 2: NCE Process Table (4-04)	Read both job aids and create your own laboratory's NEC process map  Provide a copy or create an NCE Report Form	Your laboratory's NCE process map – deliverable may be a photograph of the completed assignment or electronically produced Word or PowerPoint document. An NCE Report Form  Submission deadline: September 15, 2021
<b>4.1.3 Just Culture</b>			
View the recorded lectures BEFORE doing the homework	YouTube video <a href="#">link</a> (Lucy and Ethel Wrap Chocolates) Worksheet: Lucy and Ethel Video Debrief	Watch the video and answer the questions in Worksheet: Lucy and Ethel Video Debrief	The completed Worksheet Submission deadline: September 15, 2021
<b>4.1.4 Selecting the Winning Problem</b>			
View the recorded lectures BEFORE doing the homework	Handout 1: Procedure Excerpt Worksheet: NCE Case Studies	Watch the recorded demonstration and complete Worksheet: NCE Case Studies (Tic-mark the appropriate classification categories and determine risk score)	The completed Worksheet Submission deadline: September 22, 2021
View the recorded lectures BEFORE doing the homework	Handout 2: Sort and Review Worksheet: Risky Relationships	Watch the recorded demonstration. Analyze Scenario E of Handout 2 and complete Worksheet: Risky Relationships	The completed Worksheet Submission deadline: September 22, 2021

## QMS 4

Activity	What you need	What you do	What to submit
<b>4.1.5 Root Cause Analysis (RCA)</b>			
A. BEFORE watching the recorded lectures	Handout 1: RCA Model (4-17) Handout 2: RCA tools (4-18) Job Aid: Fundamentals (4-16) Worksheet: RCA Tools Quiz	Read the handouts and the job aid; complete Worksheet: RCA Tools Quiz	The completed Worksheet  Submission deadline: September 22, 2021
B. View the recorded lectures BEFORE doing the homework	Homework 4.1.5 RCA	Watch the recorded lectures and complete the homework questions.	The completed homework questions  Submission deadline: September 22, 2021
C. View the recorded instructions for Activity. Recording 4.1.5-9 Assignment 1 to 4	Assignment package 1 Assignment package 2 Assignment package 3 Assignment package 4	Read the Assignment instructions and complete the worksheets for each of the assignments Assignment 1: Problem statement table Assignment 2: Problem statement table and flow chart documents Assignment 3: 5 why Worksheet and Fishbone Worksheet Assignment 4: Worksheet 4 NC1 and Worksheet 4 NC2	The completed Worksheets per assignment.  Assignment 1 and 2 – deadline September 22 <b>Assignment 3 and 4 – deadline September 29</b>
<b>4.1.6 Preventive Action</b>			
View the recorded lectures BEFORE doing the homework	Worksheet: Preventive Action Organizer	Complete Worksheet: Preventive Action Organizer	The completed Worksheet  Submission deadline: September 22, 2021
<b>4.2.1 Introduction to Internal audit</b>			
View the recorded lectures BEFORE doing the homework	Recordings 4.2.1-1 to 4.2.1-3 Homework 4.2.1 Introduction to internal audit	Watch the recorded lectures and complete the homework questions	The completed homework  Submission deadline: September 22, 2021
<b>4.2.2 How to Set up an Internal Audit Program</b>			
View the recorded lectures BEFORE doing the homework	Recordings 4.2.2-1 to 4.2.2 -6 Homework 4. 2.2 Introduction to internal audit	Watch the recorded lectures and complete the homework questions	The completed homework  Submission deadline: September 29, 2021

## QMS 4

Activity	What you need	What you do	What to submit
<b>4.2.3 Internal Audit Planning and Preparation</b>			
View the recorded lectures BEFORE doing the homework.  View the activity instruction recording 4.2.3-5	Handout 1: Document Control Audit Plan (4-47)  Handout 2: Upcoming Audit (4-48)  Worksheet: Creating an Audit Plan (4-49)	Read the handouts and complete Worksheet: Creating an Audit Plan	The completed Worksheet  Submission deadline: September 29, 2021
<b>4.2.4 Internal audit methods</b>			
View the recorded lectures BEFORE doing the homework  View the activity instructions recording 4.2.4-2	Job Aid: Audit Preparation Guide (4-58)  Handout: Desk Review (4-55)  Worksheet: Process Model (4-57)	Read the handouts and complete Worksheet: Process Model (4-57)	The completed Worksheet  Submission deadline: September 29, 2021
<b>4.2.5 Audit Techniques and NCE Writing</b>			
View the recorded lectures BEFORE doing the homework  View the activity instructions recording 4.2.5- 4	Job Aid 1: Common Interview Questions (4-65)  Job Aid 2: Non-conformity statements (4-71)  Worksheet 2: Writing Nonconformities (4-70)	Read the job aids and complete Worksheet 2: Writing Nonconformities (4-70)	The completed Worksheet 2  Submission deadline: October 6, 2021
<b>4.2.6 Audit Reporting</b>			
View the recorded lectures BEFORE doing the homework  View the activity instructions recording 4.2.6-3	Job Aid: Audit closure (4-72)  Worksheet: DocCon Audit (4-69)	Complete Worksheet: DocCon Audit (4-69)	The completed Worksheet  Submission deadline: October 6, 2021
<b>4.3 Management Review (MR)</b>			
View the recorded lectures BEFORE doing the homework	Handout: Quality Report (4-81)  Worksheet: MR Report (4-82)	Read the handout and complete the last page of Worksheet: MR Report (4-82)	The completed Worksheet  Submission deadline: October 13, 2021

## APPENDIX F – Weekly post-webinar survey tool

**Weekly Post-Webinar Survey**

1. Webinar Date: \_\_\_\_\_
2. Name \*\*: \_\_\_\_\_
3. Rate the following statements

	Strongly Agree	Agree	Disagree	Strongly Disagree
Today's webinar enhanced my understanding of the subjects covered				
I enjoyed today's session				
I felt comfortable asking questions and making comments if necessary				
I feel confident that I can implement what I learned from the self-study and the webinar				

4. Please tell us one thing you liked the most about today's webinar
5. Please tell us one thing we can do to improve today's webinar

\*\*Participant name is required because the course accrediting body awards CPD points only to those who have completed the survey associated with each individual webinar.

## APPENDIX G – Monthly post-module survey tool

**End-of-Module Survey**

Name: \_\_\_\_\_

Please rate each statement between 1 and 4	1 Completely disagree	2 Disagree	3 Agree	4 Completely Agree
1. The course was well organized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The facilitators were knowledgeable about the subject matter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The facilitators were helpful and available for course participants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Participation and interaction were encouraged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The recorded lectures (videos) were helpful and easy to use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The amount of weekly homework is reasonable and necessary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. The weekly Zoom sessions were important to meeting learning objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. The total course duration was appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. The e-learning platform (Zoom, course website, etc.) was well organized and easy to use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. The training met my expectations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. This training is relevant to my current role	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Overall, I would rate this training as...	1 Poor	2 Fair	3 Good	4 Excellent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Feel free to provide comments here to explain your ratings above.

(Continue to the next page)

13. Tell us 3 most significant outcomes that this training has achieved (in terms of your personal development, improvement in your labs, or any other changes as a result of this training).

14. What is your plan for applying your learning in the future?

15. Did you experience any challenges during this course? If yes, please describe the challenges.

16. What changes do you suggest for future trainings?

17. Do you have any other comments?

## APPENDIX H – Useful resources/links

### Information about the SLMTA 3 e-learning course:

- The SLMTA 3 e-learning course website ([link](#))
- Navigating the SLMTA 3 E-Learning Website ([link](#))
- SLMTA 3 Curriculum Overview ([link](#))
- Recording of SLMTA 3 overview at the 2021 SLMTA Symposium: On-line training challenges and SLMTA 3 design solutions ([link](#))
- Recording of SLMTA 3 E-Learning Oral Abstract at ASLM 2021: Converting a highly interactive laboratory accreditation curriculum to on-line learning in resource-limited settings: A study of effectiveness, feasibility, and costs for multi-country implementation ([link](#))
- The 2021 SLMTA Symposium recordings – see Section 2 - Designing and facilitating an effective e-Learning course to achieve immediate impact ([link](#))

### Information about training in general:

- “Creating a Successful Laboratory Training Program” by Lab Manager ([link](#))

### Information about program implementation costs:

- Zoom account plans and pricing ([link](#))
- Survey Monkey plans and pricing ([link](#))

## APPENDIX I – Implementation planning template

The template outlines most of the decisions you need to make for your country implementation plan. Depending on your country's delivery model, some items may not be applicable.

<b>Country Program Description</b>
<b>Context, goals, coverage, target audiences, timelines, anticipated challenges, budget, etc.</b>
<b>Briefly summarize the modifications you plan to make to the global SLMTA 3 e-learning course.</b>
<b>Describe your key stakeholders and how you plan to engage them to ensure your e-learning course is sustainable and achieve immediate impact.</b>

<b>Team Member</b>	<b>Name</b>
Course Director	
Facilitators	
Course Coordinator	
Others (web master, IT support, etc.)	

**Number of participants in each cohort and justification:** \_\_\_\_\_

Describe your course structure and delivery model (100% virtual vs hybrid) below:

<b>E-learning Components</b>	<b>Overall course length = ____ weeks</b>
<b>Live training sessions</b>	Frequency – how many times per week? Mode – virtual (webinars) or face-to-face sessions? Will the office hours be recorded? Plans for distributing the MP4 files?
<b>Office hours</b>	Mode – live (virtual / face-to-face) or via email or WhatsApp? If live, <ul style="list-style-type: none"> <li>▪ What is the frequency – how many times per week?</li> <li>▪ Will the office hours be recorded? Plans for distributing the MP4 files?</li> </ul>
<b>Homework/self-study</b>	100% off-line, asynchronous –request weekly homework requirements from Dr. Katy Yao.
<b>Peer support</b>	Describe plans
<b>ECHO series</b>	Describe plans
<b>Incentive Program</b>	Describe plans
<b>Criteria for course certificate and expulsion</b>	Describe plans
<b>CPD</b>	Describe plans

Course Schedules:

	Dates for Office Hours	Homework Deadlines	Dates for Training Sessions
Week 1			
Week 2			
Week 3			
Week 4			
Week 5			
Week 6			
Week 7			
Week 8			
Week 9			
Week 10			
Week 11			
Week 12			
Week 13			
Week 14			
Week 15			

Describe the indicators you will use to monitor the course

Indicators	Frequency of data collection, analysis, reporting, reviewing	Who is responsible

Describe the surveys you will conduct and mechanism (e.g., SurveyMonkey vs MS Forms):

Survey	Frequency	Survey tool	Mechanism

### Budget

Line Item	Unit Cost	Total \$ Amount
<b>Virtual training related costs</b>		
▪ Webmaster salary		
▪ IT support salary		
▪ Server space		
▪ Zoom account(s)		
▪ DropBox account		
▪ SurveyMonkey account		
▪ Hardware (computer, headset, webcam, etc.)		
▪ Internet connections		
<b>Face-to-face costs</b>		
▪ Venue hire		
▪ Travel expenses (facilitators)		
▪ Travel expenses (participants)		
▪ Printing and supplies		
<b>Costs applicable to both delivery modes</b>		
▪ Facilitator cost		
▪ Course coordinator cost		
▪ CPD fees		