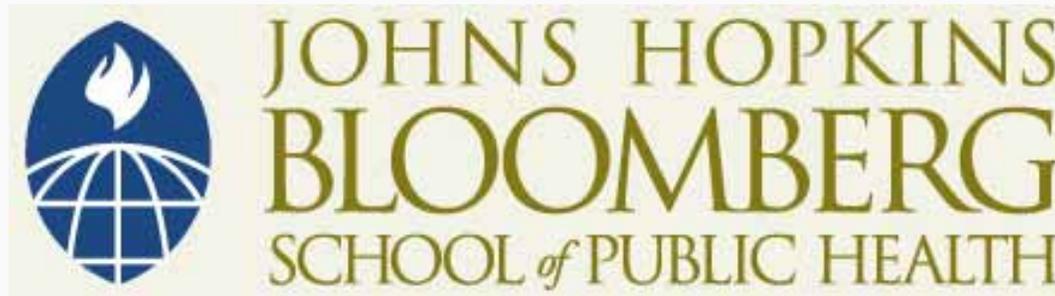


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Distance Education for International Training

Karen R. Charron, BSN, MPH
Johns Hopkins University





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Section A

Planning and Developing a Distance Education Course

Considerations for International Distance Education

How do you deliver quality education to a developing-country audience from a distance?

Can you create a successful learning environment for people:

- *While they remain in their own city/country?*
- *Without making them leave their work or research?*

Clinical Vaccine Trials and Good Clinical Practice (CVT) (Course number 223.705)

- ***<http://distance.jhsph.edu/vactrial>***
- *Developed in 1999 as an academic course with a training focus*
- *A practical training course*
- *Specialized topic*
- *Specific audience*
- *Professional enrichment*

Know your audience

Define your objective

Identify key competencies

Determine teaching methods

Determine and obtain development costs

Prepare material for delivery

What are the needs?

For whom?

What is their background?

Homogeneous or heterogeneous?

Where are they located?

What resources are available to them?

- *Financial, technological*

CVT audience

To demonstrate how to conduct a clinical vaccine trial according to the standards of Good Clinical Practice (GCP)

Create a virtual clinical vaccine trial experience for the students

What skills or knowledge do you want the audience to learn?

How will these apply to their work environment?

How will you measure competencies?

To develop components of a clinical vaccine trial protocol

To critique and create an informed consent document

To understand the steps necessary to conduct a clinical vaccine trial

To understand steps needed to manage a clinical adverse event

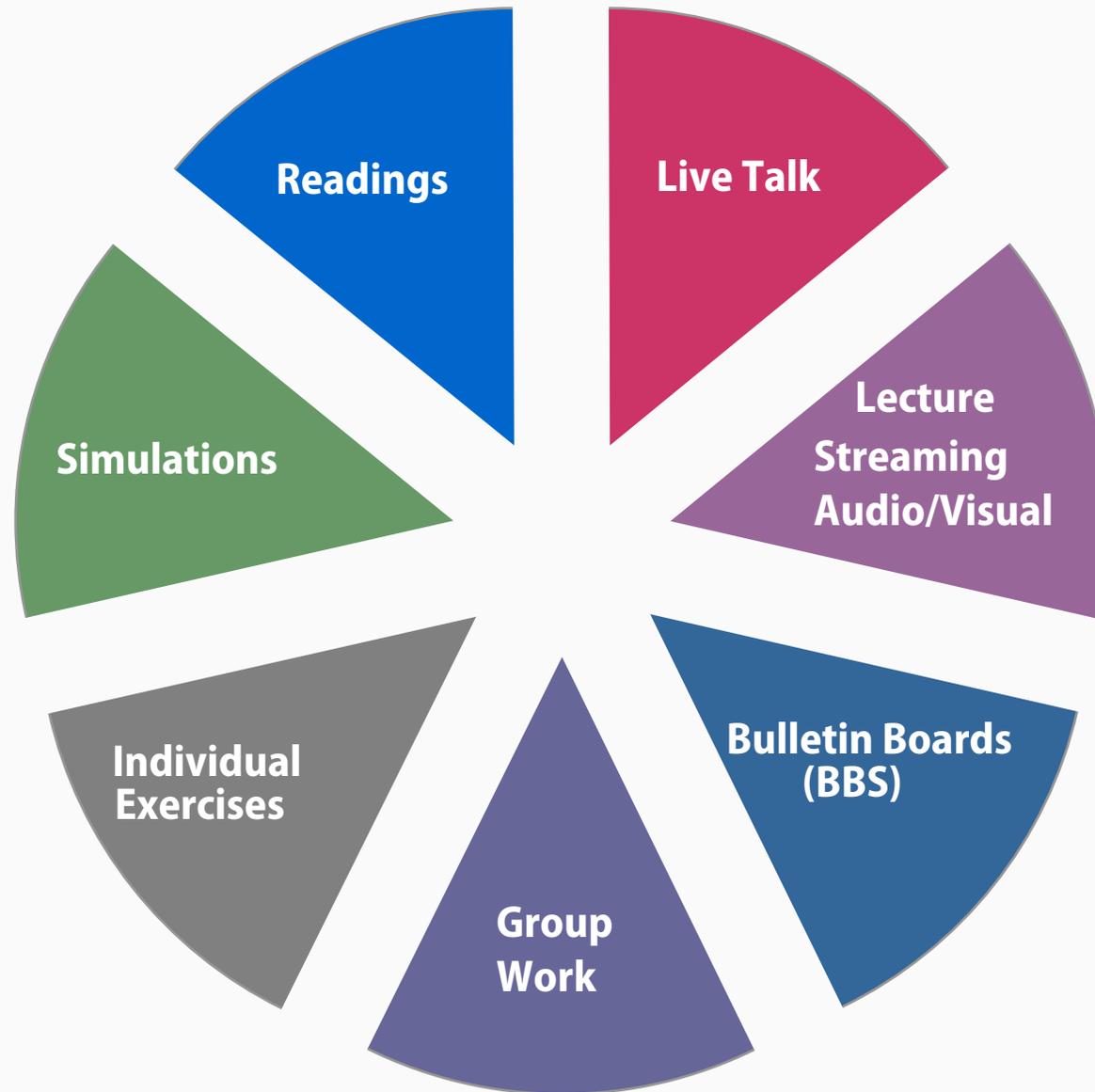
What is the optimal balance of delivering the information?

- *Didactic lecture*
- *Discussions*
- *Interactive activities*
- *Group and individual activities*

How much, if any, will be synchronous?

How much will be asynchronous?

Options for Teaching Modalities



Synchronous activities

- *Live chat sessions*
- *Online office hours*
- *Group exercises*
 - *Group chat sessions*
- *Proctored exams*

Asynchronous activities

- *Streaming audio and video lectures*
- *Bulletin board discussion*
- *Individual projects/papers*
- *Online quizzes*

Human

- *Is there a team, or are you doing it alone?*
- *Do you need to hire an expert?*
- *How long will the development take?*

Technical

- *Do you need special software and hardware?*
 - Development
 - Ongoing delivery of the course
 - Distribution (CD-ROM course)
- *What are audio or visual component costs?*
- *What are the technical support costs?*

Hardware maintenance

Server support (Akamai)

Software selection

Distance education
support

- *Instructional designers*
- *Web developers*
- *Quality control*
- *HELP line*



Photo by Karen Charron

Clinical Vaccine Trials
Technical Team

Technology support for DE course

- *Through JHSPH: ~\$100,000 per 3-credit course*
 - Server, software licenses, instructional design
- *Private development: \$350,000–\$1 million*

Faculty content development

- *Minimum of \$10,000 for translation of an existing course to distance education mode*
- *\$50,000–100,000 for new course with video components*

Web course management systems

- *Blackboard, Inc.*
www.blackboard.com



Website creation service that enables instructors to add an online component to traditional classes or teach an entire course on the Web

Private license

- *Provides basic structure for lectures and student-faculty interaction*

The development of CVT

Course description

Syllabus

Course schedule

Lectures, assignments, and due dates

Faculty background

Advertising to your audience

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media Mail Print Share

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Johns Hopkins Bloomberg School of Public Health

DED Home

About the Course Course Modules Communication Center Course Home

CLINICAL VACCINE TRIALS AND GOOD CLINICAL PRACTICE

Welcome

Have you ever wanted to know all the ins and outs of running a clinical vaccine trial?

Do you know what happens between the development of the vaccine concept and the final data analysis?

Very little, if any, of the trial process is published in the final paper. So how is this data obtained? If you would like to know, then Clinical Vaccine Trials is for you.

We invite you to view the course syllabus and schedule, as well as read about the course faculty, in the [About the Course](#) section of this Web site. Please feel free to contact Karen Charron (kcharron@jhsph.edu) if you would like any additional information about Clinical Vaccine Trials.

Some of the questions that you may ask and that we will answer in the course include:

- Historically, how have currently licensed vaccines been developed?
- Who are the partners involved in vaccine trials?
- What goes in a vaccine protocol?



Course Information		
Course Number	Term	Units
223.705.81	First	3
Course Type: Multi Term		
Faculty: Karen Charron		
Prerequisite:		
• Introduction to Online Learning		
Registration: Important Information		

Important Information

- **Username and password:** If you have forgotten your personalized username and password, use the DED [Password Retrieval](#).
- **Technical support:** dehelp@jhsph.edu
- **Help:** [Computing requirements](#) and [tutorials](#) for technologies used in online courses.
- **Fair use:** The material at this Web site is subject to the copyright of the owners of the material and is being provided under rules of fair use for registered students in this course only. No additional copies of the copyrighted

CVT: Course Modules Page

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Back Forward Stop Refresh Home Search Favorites Media Print Mail News RSS People

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DED Home

Clinical Vaccine Trials and Good Clinical Practice (GCP)

About the Course Course Modules Communication Center Course Home

December 30, 2003
Karen Charron
Go to [Faculty Tools](#)

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Course Modules

*Note: All times are EST/EDT (-5 GMT).
Assignments become accessible on the dates listed in the "Available" column.*

Available		Assignment	Due
Introduction			
Tue, Sep 2	Introduction	Course Overview (Charron) Introduction: Vaccine Trials and the Scientific Method (Steinhoff)	—
Thu, Sep 4, 9 AM	LiveTalk 1	Course Introduction (Charron, TAs) 9am - 10am Eastern time US (-5 GMT)	—
Thu, Sep 4, 5:30 PM	LiveTalk 1 (Alternate)	Course Introduction (Charron, TAs) 5:30pm - 6:30pm Eastern time US (-5 GMT)	—
Tue, Sep 2	Peer Evaluation	Form with Guidelines	Fri, Oct 24, 5 PM

Done Internet

CVT: Course Modules Page

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Back Forward Stop Refresh Home Search Favorites Media Print Mail New Tab People

Address <http://distance.jhsph.edu/vactrial/heart/modules/modsmain.cfm> Go Links

Module 1: Foundations of Vaccine Clinical Trials

Tue, Sep 2	Lecture 1	Types of Vaccines, How Vaccines Are Administered, and the Vaccine Development Process (Halsey)	—
Tue, Sep 2	Lecture 2	Development of a Vaccine Protocol and Sample Size Selection (Charron and Moulton)	—
Tue, Sep 2	Lecture 3	Characteristics and Outcomes of Vaccine Trials (Harro)	—
Tue, Sep 2	Self-Evaluation	Module 1 Self-Evaluation	—
Tue, Sep 2	Group Exercise 1	Development of Protocol Concept, Inclusion/Exclusion Criteria and Study Schedule	Tue, Sep 23, 5 PM

Module 2: Budget Development and Vaccine Management

Fri, Sep 12	Lecture 4	Vaccine Trial Budget Development (Jackson)	—
Fri, Sep 12	Lecture 5	Vaccine Management and Preparation (Ossing)	—
Fri, Sep 12	Self-Evaluation	Module 2 Self-Evaluation	—
Tue, Sep 16, 9 AM	LiveTalk 2	Group Exercise #1 Q & A (Charron, TAs) 9am - 10am Eastern time US (-5 GMT)	—
Tue, Sep 16, 5:30 PM	LiveTalk 2 (Alternate)	Group Exercise #1 Q & A (Charron, TAs) 5:30pm - 6:30pm Eastern time US (-5 GMT)	—

Internet

Summary

Objectives

Reading material

Lectures

- *Streamed audio with PowerPoint slides*
- *“Audio only” option with handouts available*

Evaluation

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File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media Print Mail News RSS People

Address http://distance.jhsph.edu/vacTrial/heart/modules/lect/lect1_main.cfm Go Links

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[About the Course](#) [Course Modules](#) [Communication Center](#) [Course Home](#)

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 **December 30, 2003**
Karen Charron
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Lecture 1

Types of Vaccines, How Vaccines Are Administered, and the Vaccine Development Process

Neal Halsey, MD

Summary

This lecture will provide a brief overview of the types of vaccines that have been developed for human use. It will establish a platform for discussion of various aspects of clinical vaccine trials.

Objectives

After listening to, viewing, and studying the lecture materials on this page, you will be able to:

- Identify the different types of vaccines available
- Describe how different types of vaccines are made
- Explain how different types of vaccines are administered

Reading Material

Please refer to the [Welch Library's E-Reserve](#) area for reading assignments. (If you are prompted for a password to access the files, please enter "223705sph")

Lecture Materials

Lecture Presentation	Running Time	Audio Only	Print Slides
Section A: Types of Vaccines	11:08	(Audio)	(2/page) (6/page)
Section B: The Vaccine Development Process	8:26	(Audio)	(2/page) (6/page)

Lecture Evaluation

Please take a few minutes to [evaluate this lecture](#). Comments and feedback are very important to your instructors, and your confidentiality is assured.

Exercises to support objectives

Balance of individual and group work

Consider time to complete and time to grade

Use varied formats for exercises

Online library

- *Reference documents*
- *Exercise materials*

Web links

Electronic readings

Avoid use of idioms

- *“Hands-on” or “It goes without saying”*

Avoid jargon

- *Use clear, concise wording*

Eliminate cultural references

Use humor judiciously

Express measurements, dates, and times universally

Test and edit material



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Section B

The Structure: Tools That Can Be Used
and How to Optimally Use Them

Seven Principles for Effective Teaching

Chickering and Gamson wrote “Seven Principles for Good Practice in Undergraduate Education,” 1987 and 1993

Charles Graham, Kursat Cagiltay, Byung-Ro Lim, Joni Craner and Thomas M. Duffy used these principles to evaluate online courses at a large university in 2001

- *“Seven Principles of Effective Teaching: A Practical Lense for Evaluating Online Courses”*

Principle #1: Encourage Student-Faculty Contact

Question

- *Are instructors accessible to online students?*
- *Are faculty overwhelmed by email?*

Answer

- *Establish policies describing the types of communication that should take place*
- *Provide clear guidelines for interaction with students*

Created a course email address

Frequently sent email to the entire class to maintain momentum

Scheduled live chats at convenient times for the audience

Utilized bulletin boards for course questions and discussions

Created a policy that we would respond within 24–48 hours

Scheduled synchronous discussions

One-way audio (faculty)

Live text chat with students

Format

- *Question/answer session*
- *Mini lecture with “expert”*
- *Presentations*

Software

Principle #2: Encourage Student Cooperation

Question

- What is **meaningful participation**?

Answer

- *Learners should be required to participate*
- *Discussion groups should remain small*
- *Discussions should be focused on a task*
- *Tasks should always result in a product*
- *Tasks should encourage learners in the content*

Require participation

Encourage “Introduce Yourself” and picture postings to the course Web site

Give students options for communication

Include group exercises

- *Match time zones*
- *Consider backgrounds to be sure objectives can be met*
- *Have projects correspond to lectures*

Create a virtual classroom

Allows asynchronous discussions over long periods of time

- *Introduce Yourself*
- *Vaccine Current Events*
 - Students subscribe to *Immunization Newsbriefs* to keep up with current events in vaccines

▼ General Discussion

- 04/02/02 - [Introduce yourself](#) (43) **NEW**
- 04/01/02 - [April 1, 2002 Code of Federal Regulations Handbook](#) (3)

▼ Vaccine Current Events Posting - Due April 1st

- 04/02/02 - [Protein conjugate pneumococcal vaccines](#) (2) **NEW**
- 04/02/02 - [Therapeutic HIV vaccines](#) (3) **NEW**
- 04/02/02 - [Why it is hard to get an HIV Vaccine](#) (19) **NEW**
- 04/02/02 - [Smallpox Vaccination Policy-the Need for Dialogue](#) (1) **NEW**
- 04/02/02 - [Human therapeutic cocaine vaccine: safety and immunogenicity](#) (4) **NEW**
- 04/02/02 - [Measles Epidemic in Venezuela](#) (1) **NEW**
- 04/01/02 - [Dual Vaccine Strategy in HAART treated individuals](#) (5) **NEW**
- 04/01/02 - [Parental perceptions of childhood vaccine safety](#) (1) **NEW**
- 04/01/02 - [Results of Harris Poll: Americans' Faith in Clinical Trials Shak](#) (1) **NEW**
- 04/01/02 - [Standards to protect the privacy of personal health information](#) (1)
- 04/01/02 - [Diluted Smallpox Vaccine](#) (10)
- 04/01/02 - [Vaccine Possibilities to prevent Tooth Decay](#) (2)
- 04/01/02 - [Decline in MMR Vaccinations in Great Britain](#) (7)
- 04/01/02 - [T-cell vaccination for autoimmune diseases](#) (1)
- 04/01/02 - [Vaccine May Lower Cholesterol](#) (5)

Group exercises

Students schedule chat times to work on material

Vaccine Trial Protocol templates provided in the Online Library

Exercises submitted by email

Group Exercise 1

Development of Protocol Concept, Inclusion/Exclusion Criteria and Study Schedule

Instructions

You have been assigned a group topic (HIV, HPV, malaria, or RSV) and a team. Plan a virtual meeting with your team members. You can reach them by email, the CVT DigiChat room, or (if possible) a conference call.

Using the information from Lectures 1–3, work with your team to develop the components listed below for a clinical vaccine trial. **Please use the template provided for your protocol.** The templates are provided in the "Materials" section of this page, as well as in the [Online Library](#). The components required for completion of this assignment are indicated by blue boxes in the protocol template.

(Note: You will *not* be filling in all of the blue boxes in the template for this assignment; some will be completed in future assignments.)

You may also reference the article related to your topic posted in the Online Library. Please follow these directions:

Please follow these directions:

Materials

[HIV Vaccine Protocol Template](#)
[HPV Vaccine Protocol Template](#)
[Malaria Vaccine Protocol Template](#)
[RSV Vaccine Protocol Template](#)

Grading Criteria

This exercise is worth 20% of your grade.

Submit Your Assignment

Please use the following submission instructions:

- Please complete your assignment in Microsoft Word format
- Have one person from your team submit the total assignment for the group
- Be sure the names of each group member are on the title page of the document
- Email your assignment in Microsoft Word format to vactrial@jhsph.edu by the date listed on the course schedule
- Name your file in the following manner:

You have been assigned a group topic (HIV, HPV, Malaria, or RSV) and a team. Plan a virtual meeting with your team members. You can reach them by email, the DED messenger, or (if possible) a conference call.

Using the information from Lectures 1–3, work with your team to develop the components listed below for a clinical vaccine trial. Please use the template provided for your protocol. The templates are provided in the "Materials" section of this page, as well as in the Online Library. The components required for completion of this assignment are indicated by blue boxes in the protocol template.

Principle #3: Encourage Active Learning

Question

- *How can students use skills obtained in lectures?*
- *How can they present course projects?*

Answer

- *Provide opportunities for asynchronous discussions*
- *Use simulations or case studies to emphasize topics*
- *Students present case studies that are critiqued*
- *Faculty feedback can be delayed until classmates respond*

Students were asked to actively use information they learned in the course

- *Obtain and discuss current events in vaccines by using the course bulletin board*
- *Create a vaccine clinical protocol using a template*
- *Critique and create an informed consent form*
- *Respond to a warning letter from a regulatory agency and discuss its implications*
- *Participate in case-study simulations*

Adverse Event Simulation 1

Day 60 Visit

Vaccination schedule is on days 0, 28, 180. The investigator has enrolled a 25 year-old healthy female volunteer in the study. She has received her first 2 vaccinations but has failed to return for follow-up at her day 60 visit. What should the investigator of the trial do?

You now have the following options:

- Attempt to follow-up with volunteer by notifying contacts provided by volunteer or sending certified letter
- Wait and see if she follows up at her day 90 visit
- The volunteer is terminated from the study for noncompliance

< Go Back

Continue >

Principle #4: Give Prompt Feedback

Question: how best to provide feedback?

- *Information feedback (answer a question, assignment grades and comments)*
- *Acknowledgment feedback (confirms some event has occurred)*

Answer

- *Give detailed personal feedback to each student*
- *Respond to discussion topic to the whole class; address patterns and trends*
- *Send messages that assignments were received or grades will be sent shortly*

Balance quality and quantity of feedback to suite student's needs and faculty's time

Realize students learn most from feedback

Include **positive** and **negative** feedback

Acknowledge that an assignment was submitted

Interactive quizzes

- *Multiple-choice*
- *Short-answer*
- *True–false*

Self-evaluation or graded quizzes with results emailed to the instructor

Display feature shows score, correct answers, and explanations

Module 1 : Self Evaluation

Online Course: Clinical Vaccine Trials and Good Clinical Practice (GCP)

Module 1: Foundations of Vaccine Clinical Trials

Instructions:

Answer the questions and click on the 'Completed' button at the bottom of this page when you're finished. Your quiz will be automatically graded, and you'll receive the results a few moments after you submit the quiz. Correct answers will be available from the link at the bottom of this page one day after this quiz's due date.

1. Diphtheria toxoid is what type of vaccine?

- A. Killed vaccine B. Live vaccine C. Subcomponent or subunit vaccine
- D. Toxoid E. Recombinant vaccine F. Naked DNA
- G. Vectored or reassortant

2. The efficacy of a vaccine product is measured in what phase of vaccine development?

- Phase I Phase II
- Phase III Phase IV

3. In a Phase II clinical vaccine trial, the safety assessment is more comprehensive, intense, and frequent than in a Phase I clinical vaccine trial

- True False

Principle #5: Emphasizes Time on Task

Question

- *Does it matter when things are completed?*

Answer

- *Yes: online courses need deadlines*
- *Regularly distributed deadlines encourage students to spend time on tasks and help students avoid procrastination*

Have clear start and stop dates for the course

Have deadlines clearly defined before the start of the course

State expectations and adhere to set deadlines

Monitor student progress in completing lectures and assignments

The Importance of Time

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Back Forward Stop Refresh Home Search Favorites Media Print Mail New Tab

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Module 1: Foundations of Vaccine Clinical Trials

Tue, Sep 2	Lecture 1	Types of Vaccines, How Vaccines Are Administered, and the Vaccine Development Process (Halsey)	—
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Tue, Sep 2	Lecture 3	Characteristics and Outcomes of Vaccine Trials (Harro)	—
Tue, Sep 2	Self-Evaluation	Module 1 Self-Evaluation	—
Tue, Sep 2	Group Exercise 1	Development of Protocol Concept, Inclusion/Exclusion Criteria and Study Schedule	Tue, Sep 23, 5 PM

Module 2: Budget Development and Vaccine Management

Fri, Sep 12	Lecture 4	Vaccine Trial Budget Development (Jackson)	—
Fri, Sep 12	Lecture 5	Vaccine Management and Preparation (Ossing)	—
Fri, Sep 12	Self-Evaluation	Module 2 Self-Evaluation	—
Tue, Sep 16, 9 AM	LiveTalk 2	Group Exercise #1 Q & A (Charron, TAs) 9am - 10am Eastern time US (-5 GMT)	—
Tue, Sep 16, 5:30 PM	LiveTalk 2 (Alternate)	Group Exercise #1 Q & A (Charron, TAs) 5:30pm - 6:30pm Eastern time US (-5 GMT)	—

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Principle #6: Communicate High Expectations

Question

- *Does the material in this course matter?*

Answer

- *Give challenging assignments*
- *Use real-world examples to apply theories and show relevance*
- *Provide examples of exemplary work*
- *Publicly praise exemplary work*

Use actual protocol to make a template

Give students a project where they interact with the community directly

Provide materials from actual clinical trials

Provide information that many students have applied to their actual work assignments

Develop simulations that mirror situations in the real world

“I really enjoyed the course, and it has been incredibly useful to me preparing for the AIDS vaccine trial to start in Durban, SA.”

— Molebogeng Rangaka,
MD, Durban, SA

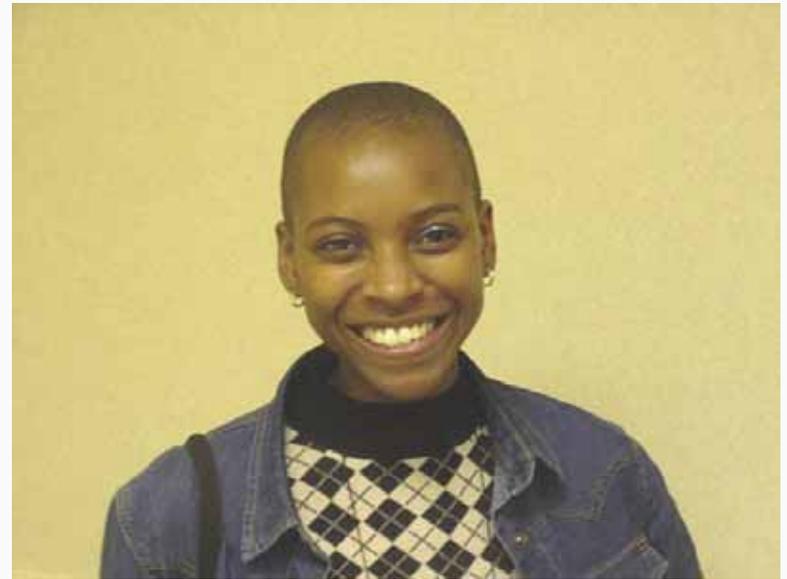


Photo by Karen Charron

Principle #7: Respect Diverse Talents & Ways of Learning

Question

- *How to deal with a heterogeneous class?*
- *How do you respect cultural differences?*

Answer

- *Provide options and allow students to choose project topics (encourages diversity in thought and style)*
- *Avoid idioms that may not have literal translations*

Provide opportunities for students to give their perspective on various topics

Deliver a good balance or hybrid of audio, visual, and text materials

Develop a curriculum that is accessible to the majority of participants

Include information that will appeal and be useful to a wider audience

Choose projects that emphasize core competencies

When possible, give real examples for students to address

Encourage students to incorporate their own experiences

Critique and correct a draft Informed Consent document

- *Uses the standards of GCP*
- *Provides practice with informed consent language and vaccine trial concepts*

Draft a “fake” reply to an actual FDA Warning Letter sent to a clinical investigator

- *Demonstrates that bad research can happen and there are implications*

International students have challenges

- *Internet connections go down*
- *Computers crash*
- *Computer access may only be at work*
- *May travel*

Version control is everything

- *Posting the wrong version of an assignment or lecture can be disastrous*
- *Requires continuous monitoring*



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Section C

Evaluation of the Student and the Course

How do you measure whether the objectives of the training were met?

- *Examinations/tests*
- *Activities/projects*
- *Participation*

Types of examination techniques

Online graded quizzes

Mailed exams (proctored by designated person)

Self-evaluation quizzes

Projects and Activities for the Student

Group projects

Individual written assignments

Live presentations

Case studies or simulations

Critical thinking activities (i.e., position papers)

Measurements of participation

- *Formal discussions*
- *Active interaction with peers through online forums*
- *Current events*
- *LiveTalks*
- *Evaluation of peers and training*

Establish a grading system that will be used in the training (traditional or non-conventional)

Define what will be the marker of success for the student (i.e., grade, pass/fail, certificate)

Consider the optimal use of student and faculty time

Clear Grading Expectations

<i>Title</i>	<i>Exercise</i>	<i>Percent</i>
GE1	<i>Group Exercise 1: Development of Protocol</i>	20%
GE2	<i>Group Exercise 2: Community Education</i>	20%
IE1	<i>Individual Exercise 1: Critique Informed Consent Form</i>	15%
IE2	<i>Individual Exercise 2: Warning Letter Response on BBS</i>	10%
IFS	<i>Individual Final Submission (IFS) of Final Vaccine Trial Protocol:</i>	20%
—	<i>Participation: LiveTalks (4), Adverse Events Simulation (AES) & peer evaluation</i>	15%
	Total	100%

Feedback is necessary

Factors to consider

- *What type?*
- *How much?*
- *Computer-generated vs. faculty-generated*
- *Timeliness*

Electronic feedback is time-intensive

Phrasing of feedback is critical

- *Avoid use of acronyms and jargon*
- *Quick responses can sound cold and callous*

Sometimes a phone call or live chat is necessary to clarify

What are good measures of the quality of the training course?

- *Lecture-by-lecture evaluation*
- *Instructor evaluation*
- *Activity/exercise evaluation*
- *Delivery quality*
- *Strengths and weaknesses*
- *Overall course content*

Photos by Karen Charron

Quality of instruction,
content, sound, and
visual output

Ease of comprehension
of information

Optimal length and
pace

Synchronization of
spoken information
with slides or text



Lecturers need individual
evaluations

Availability

Quality of organization of the training

Managing and accomplishing objectives

Timeliness of response

Good feedback and input

Facilitation of discussions/forums

Amount of workload

Quality of design

Clear instructions

Usefulness

Accomplish specific learning objectives

Length

Appropriateness of deadlines

Methods used appropriate to training objectives

Right balance of delivery methods

Ease of use

Success in communicating information

Issues related to a specific method

What made the training an enjoyable learning experience?

What could be improved to make the training a more valuable learning experience?

Were the objectives met?

Was the training useful?

Will the information gained be valuable in future endeavors?

Would you recommend this course or training to others in your field of interest?

Anonymous course evaluations completed at the end of the course

Compiled results with comments sent to instructor

Feedback used for updates and revisions

- *Resulted in changes to lectures and exercises*

CVT Course Evaluation

Overall, this course was:	Excellent	Good	Fair	Poor	
	81%	16%	0%	3%	
Questions (1=Strongly Agree, 2=Agree, 3=Disagree, 4=Strongly Disagree, N/A=Not Applicable)	1	2	3	4	N/A
7. Course favorably met my expectations.	68%	32%	0%	0%	0%
8. Course was a valuable learning experience.	77%	16%	3%	3%	0%
9. Course was relevant to my degree/career goals.	58%	29%	3%	3%	6%
10. Course objectives were achieved.	61%	35%	0%	3%	0%
11. Course was managed effectively.	81%	16%	0%	3%	0%
12. I would recommend this course to another student.	77%	16%	3%	3%	0%
13. I would take another course from these instructors.	84%	13%	0%	3%	0%
14. The online format increased my motivation to learn.	32%	42%	19%	6%	0%
15. I learned a great deal from this course.	68%	26%	0%	6%	0%

What Were the Strengths of the Course?

“Provided practical tools”

“Very applicable to real trials”

“The quality of the individual and group exercises”

“Such a practical course. Very thorough and interesting”

“It made one develop a team spirit. It was practical”

What Were the Weaknesses of the Course?

Please provide constructive suggestions for improvement

- *“Some examples could be updated”*
- *“Lack of face-to-face contact”*
- *“It needs additional mock exercises”*
- *“Technical difficulties with lectures”*
- *“Some of the instructors were fast”*
- *“None, this was an excellent course”*

Continual updates and changes to the course are important and necessary

- *Revisions create new energy and excitement*
- *Utilize feedback from participants*

Assignments/exercises

Add or drop lectures

Reorder or modify lectures

Update information and materials

“I really enjoyed the course, and it has been incredibly useful to me in starting my new job at the Malaria Vaccine Development Unit”



David Diemert, MD, NIAID

Photo by Karen Charron

“Thank you so much for the result of our CVT course. I enjoyed learning with you all and with my group. It was really a valuable experience and will be useful for me for my future work.”



Smita Joshi, MBBS, Pune India

Photo provided by Smita Joshi



JOHNS HOPKINS
BLOOMBERG
SCHOOL *of* PUBLIC HEALTH

Section D

Perspectives on Distance Learning

“What students respond to most is being able to have a one-on-one dialogue with somebody and then have somebody say, ‘You’re right,’ and pat them on the back. Acknowledge ‘That’s a very interesting way of looking at it.’”

Source: George Lucas, in conversation with Linda Darling-Hammond, Q&A, p. 20, Edutopia, Fall 2000, www.glef.org

Online learning

- *80% of content is delivered through the Internet*
- *Typically has no face-to-face meetings*

Blended/hybrid

- *30–79% of content online*
- *Blend of face-to-face and online content*

Web-facilitated

- *Web technology facilitates a face-to-face course*

Internet

- *Streaming audio and video*
- *Web conferencing*
- *Chat rooms/bulletin boards*

Video and audio conferencing

Text materials supplemented with audio, videotapes

CD-ROM delivered

Radio

Over 1.6 million students took at least one online course during Fall, 2002

Approximately 97% of public institutions offer at least one online or blended course

- *49% offer an online degree program*

The quality and acceptance of online education continues to improve

American Center for the Study of Distance Education
(Pennsylvania State University)

- ***www.ed.psu.edu/acsde/***

American Distance Education Consortium

- ***www.adec.edu/***

Computer-Using Educators, Inc.

- ***www.cue.org/***

Academic degree programs

Professional development

- *Continuing Education Units (CEUs)*
- *Continuing Medical Education Credits (CMEs)*

Organizational or specialty training

- *Private sector*
- *Government trainings*
- *Regulatory training*

Meetings and professional forums

Full-length academic degrees

Institutes

- *Short courses taught periodically*

Certificate programs

- *Group of courses in specialized area*

Linkages between institutions

- *Academic links*
- *Professional or governmental links*

Internet-based MPH established in 1996

45 full online graduate courses

Streaming audio/visual presentations

Cohorts of students enter in July and January

Combines online courses and live classroom courses taught in East Baltimore

Distance learning is growing internationally

Multiple organization are developing materials for distance education

Regional activities

- *Sub-Saharan Africa programs*
- *Southeast Asia programs*
- *Americas programs*

Allows for cultural and language adaptations

International Distance Education Clearinghouse

- ***www.uwex.edu/disted/international.html***

International Centre For Distance Learning

- ***www-icdl.open.ac.uk***

African Distance Learning Association

- [**www.physics.ncat.edu/~michael/adla/**](http://www.physics.ncat.edu/~michael/adla/)

UN Information and Communication Technologies (ICT) Task Force, was held on September 12 and 13, 2003

- [**www.unicttaskforce.org/**](http://www.unicttaskforce.org/)
- [**www.unicttaskforce.org/globaldatabase/database.asp**](http://www.unicttaskforce.org/globaldatabase/database.asp)

Launched by World Bank in 1997

Based in Kenya with 34 learning centers in 17 countries

Objective: “to build capacity and support economic development by leveraging the power of modern telecommunications technology to provide world-class quality education and training programs to students and professionals in Africa.”

UNISA online

- *Degree programs*
- *Short courses*
- *Certificate programs*
- ***www.unisa.ac.za***

SAIDE

A global distance education network

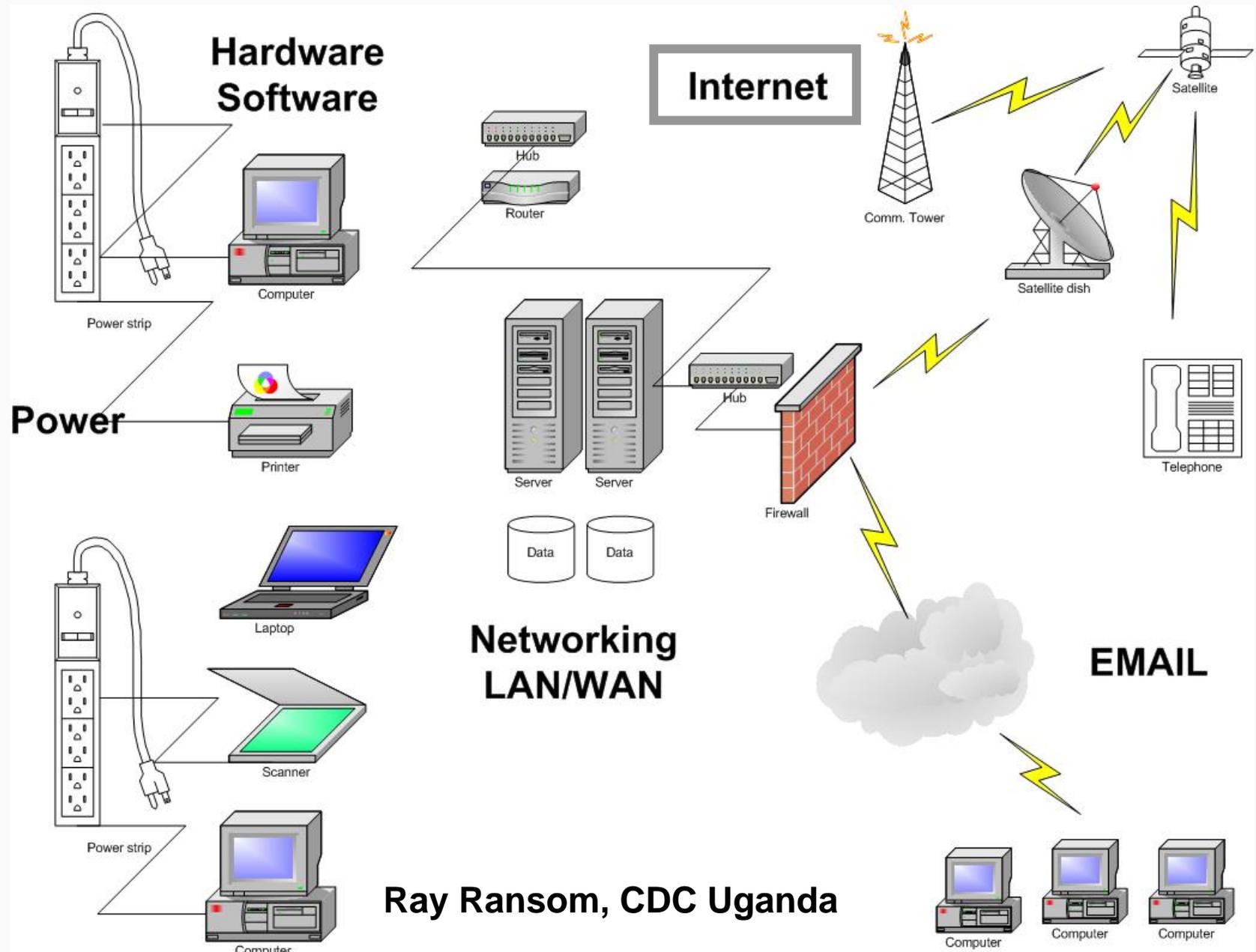
www.saide.org.za/worldbank/Default.htm

Consortium of southern African Universities

Malawi College of Distance Education

- *An outgrowth of the correspondence school*

Flow of Information



Ray Ransom, CDC Uganda



Basic assumptions

- *“Principles that lend themselves to quality face-to-face learning are similar to those found in Web-based learning”*
- *Advanced technology may include a variety of learning environments and tools*
- *Current technologies prove highly effective for various audiences and objectives*

- 1. Must have a clear purpose with focused outcomes and objectives*
- 2. The learner is actively engaged*
- 3. Makes appropriate use of a variety of media*
- 4. Includes problem-based, knowledge-based learning*
- 5. Supports interaction, development of communities*
- 6. Contributes to the larger social mission of education and training*