



American Society for
Clinical Pathology

#8302

Elements of a Successful Distance Education

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Speaker Disclosure

In the past 12 months, I have not had a significant financial interest or other relationship with the manufacturer(s) of the product(s) or provider(s) of the service(s) that will be discussed in my presentation.

This presentation will not include discussion of pharmaceuticals or devices that have not been approved by the FDA or unapproved or “off-label” uses of pharmaceuticals or devices.



SCHOOL OF MEDICINE

INDIANA UNIVERSITY

Objectives

After this session, the participant will:

1. Describe the DE strategies that provide a flexible and efficient educational infrastructure.
2. Discuss instructional design elements that address known factors critical for successful DE.
3. Recognize challenges to providing DE in laboratory practitioner professional programs.



SCHOOL OF MEDICINE

INDIANA UNIVERSITY

Indiana University School of Medicine Histotechnology Program

Beginning in the Fall semester, 1995, Indiana University offered its first non-traditional training program in Histotechnology.



I.U. HT Program- Mission Statement

To provide quality education using distance learning technology in preparing individuals for certification in Histotechnology. To meet the healthcare manpower needs in both urban and rural settings nation-wide.



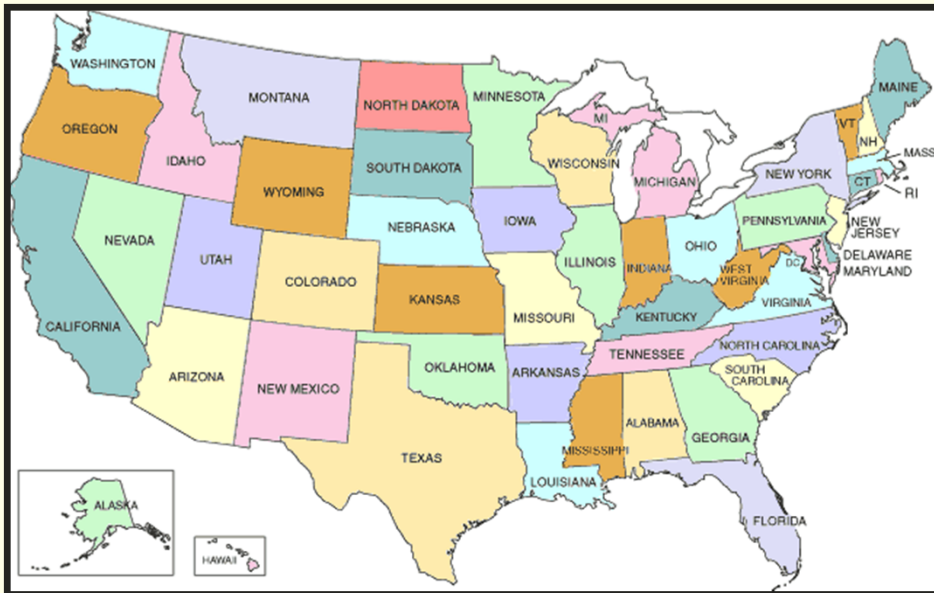
I.U. HT Program- Program Goals

- To provide students with the educational experiences necessary to enter a career as a Histologic Technician and eligibility for the ASCP Board of Certification Histotechnician or Histotechnologist exam.
- To provide the nation-wide health care community with individuals competent to conduct **high quality histologic procedures.**
- To provide a curriculum containing a **balance between technical knowledge and clinical competence** gained in the histology laboratory setting.
- To assist the students in reaching their goals by **providing academic and occupational advisement.**
- To instill in students a **lifelong desire to achieve professional and academic excellence.**



I.U. HT Program: National Model

Since 1995 :



Certificate Program

~ 850 graduates

~ 350 Clinical Affiliate Sites

Associate Degree

~65 graduates



IU HT Program – International Model

- Canada



- Switzerland





I.U. HT Program: National Model

- National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) Accredited
- Florida Board of Health: Approved Training Program
- New York Education Department: Combined Certificate and Associate degree meet requirements for licensure.
- Approved for Federal Student Aid (FASFA) & VA.



IU HT Program: Certificate Program

- University partners with any “qualifying” lab.
- Students are employed or unemployed.
- Students apply to the program.
- Verification of: Prerequisites, Lab, Supervision, and completion of practicum hours (340 hours).
- Students pay a flat-rate equivalent to in-state tuition (~\$6,300)
- Instructed on technical skills in their lab by the approved Clinical Education Supervisor.



IU HT Program: Certificate Program

- Complete 24 credit hours. 10 months (August-May)
- Earn a certificate for the I.U. School of Medicine
- Eligible for ASCP BOC exam
- 24 credit hours can apply toward Associate Degree



IU HT Program: Associate of Science in Histotechnology Degree

Open enrollment

2 Tracks

- 60 credit hours total
- Minimum 30 credit hours must come from I.U.
- Transferred courses must be completed at a Regionally Accredited College or University.
- 24 credit hour certificate program + 6 credit hour Capstone course= required 30 credit hours



IU HT Program: Associate Degree

Track 1:

For students that have completed the I.U. HT Certificate Program.

- Students complete the 24 credit hour certificate program offered by IUSM (24 credits hours awarded)
- Apply for the Associate Degree Program
- Complete the required degree courses at any regionally accredited college or university.
- Enroll in the H201 Capstone (6 credit hours) as your final course. (Offered online by IUSM.)
- Earn Associate of Science in Histotechnology



IU HT Program: Associate Degree

Track 2:

For HT (ASCP) certified technicians that have not completed the I.U. HT Program.

- Students are awarded special credit for their HT(ASCP) certification (24 credit hours)
- Apply for the Associate degree program
- Complete the required degree courses online from any Indiana University campus.
- Enroll in the H201 Capstone (6 credit hours) as the final course. (Offered online by IUSM.)



Certificate Program: Curriculum Didactic & Practicum

<u>H101-H181</u>	<u>H102-H182</u>	<u>H103-H183</u>	<u>H104-H184</u>
Safety Ethics & Prof Specimen Rec. Med Term Instr & Microtomy Math & Chem Tissue ID Fixation Final Exam	Decal Processing Cryotomy Embedding Organ ID General Staining Nuclear & cytoplasmic staining Coverslipping	Special Stains: Connective Tissue Carbohydrates Amyloid Lipids Pigments & Minerals VIR, EM, Cyto	Special Stains: Nerve Enzymes IHC Microorganisms Autopsy, ASCP Exam



Certificate Program: Curriculum

Structured Schedule

Module	Unit	Week of: (Friday)	Muddy Moment (Tues.)	Web-Conf (Wed.)	Unit Assessment (Thurs)	Lab activity (Fri)
Example: Module #2	Specimen Receipt	Read Lecture worksheet	What needs more explanation	Cover material & answers questions, review images etc.	Submit homework, take quiz	Office receives technical product



Students and Curriculum

- Asynchronous- Students interact with curriculum. (i.e. recorded lectures, videos, review games, & practice tests)
- Synchronous- Weekly web conference (used to review weekly topics , images, and access comprehension.)
- Multiple Learning Styles- social, solitary, visual, verbal, physical, & logical



Asynchronous Interactions: Student & Curriculum

Courses & Personal
Workspace

Site Tools

Course Module
(Curriculum Chunking)

The screenshot displays the Blackboard LMS interface for the Indiana University School of Medicine. At the top, the university logo and name are visible, along with search and navigation links. A navigation bar contains tabs for 'My Workspace', 'FA12 IN PATH H101 9409' (selected), 'FA12 IN PATH H181 9411', and 'FA12 IN PATH H102 9410'. Below this, a secondary navigation bar includes 'FA12 IN PATH H182 9412', 'HT Courses', 'Administrator Tools', 'PA Project Site', and a '- more -' link. A left-hand navigation menu lists various site tools such as Home, Course Modules, Forums, Adobe Connect Meeting, Tests & Surveys, Resources, Gradebook, Syllabus, Roster, Announcements, SIS Grade Roster, Performance Roster, Campus Course Policies, Site Setup, Site Stats, Messages, and Help. The main content area shows the 'Course Modules' section with an 'Options' link. Below this is a header for 'Histotechnology Techniques & Practicum H101 & H181' by Debra M. Wood, MS, HT (ASCP). A navigation bar within the content area includes 'Home', 'Module 1', 'Module 2', 'Module 3', and 'Module 4'. The main content displays the title 'Histotechnology Lecture H101 & Histotechnology Laboratory H181' and an 'Introduction' section. The introduction text states: 'As you progress through the course, you will be provided with a wealth of information to assist you in achieving professional and academic excellence. The Histotechnology H101 course will focus on specimen receipt and accessioning, laboratory safety, laboratory chemistry and math, instrumentation and fixation. The Histotechnology Laboratory course H181 provides a clinical practicum experience in topics covered in H101. I encourage you to keep copies of lecture notes, assignments, and exams in an organized manner not only for this course, but for your ASCP certifying exam. I look forward to working with you this year. Debbie'. The page number 'Page: 1 of 1' is shown in the bottom right corner.



Asynchronous Interactions: Student & Curriculum

Structure & Consistency

The screenshot displays a course website for the Histotechnology Program at Indiana University. The page is titled "Histotechnology Techniques & Practicum H101 & H181" and is taught by Debra M. Wood, MS, HT (ASCP). The navigation menu on the left includes links for Home, Course Modules, Forums, Adobe Connect Meeting, Tests & Surveys, Resources, Gradebook, Syllabus, Roster, Announcements, SIS Grade Roster, Performance Roster, and Campus Course Policies. The main content area shows the course title and a dropdown menu for "Module 3" with the following units: Unit 1: Instrumentation, Unit 2: Microtomy, Unit 3: Math, and Unit 4: Chemistry. Below the dropdown, there is a list of course materials including Introduction, Readings & Recordings, Instructional Material, Lab Activity, and Unit Assessment. The page also features a navigation bar with links for Home, Module 1, Module 2, Module 3, and Module 4.



Asynchronous Interactions: Student & Curriculum

Flexibility

Review any time as often as necessary.

Scripted for hearing impaired

Access comprehension

Regulatory agencies

OSHA - Occupation Safety and Health Administration

EPA – Environmental Protection Agency

NIOSH – National Institute for Occupational Safety and Health – Part of CDC makes recommendations for safety regulations. Does studies and reports to OSHA

CDC – Center for Disease Control

CAP, JCAHO – Lab or hospital certifying or accrediting agency

NFPA – National Fire Protection Agency

1B Safety

Outline Thumb Notes Search

Slide Notes

Regulatory agencies- Safety is regulated and laboratories are required to adhere to policies and pass inspections.
OSHA - Occupation Safety and Health Administration. Federal Agency which operates. Under the Dept of Labor. Its purpose is to establish regulations that require employers to keep you safe.
EXAMPLE:Formaldehyde Standard, Bloodborne Pathogen Standard, Laboratory Standard (Occupational Exposure to Hazardous Chemicals in Laboratories) One major requirement of this is that the lab must have a Chemical Hygiene Plan (CHP) and appoint someone to be the Chemical Hygiene Officer (CHO), Hazardous Communication Standard ("Right to

24 Minutes 27 Seconds Remaining



660c



Slide 3 / 30 | Stopped

00:00 / 04:48



Which of the following agencies provide fire safety standards that must be followed in the laboratory?

- A) ASCP and CAP
- B) FDA and HCFA
- C) OSHA and NFPA
- D) NSH and AMA

Submit

Clear

1B Safety

Outline Thumb

Slide Notes

19 Minutes 3



660c



Answer Question

00:00 / 00:00





Asynchronous Interactions: Students & Students

Chat

- Builds Community
- Encourage thoughtful responses
- Convenient communication
- Create a permanent record of communication

Currently viewing messages for 'Main Chat Room'

View View messages from...

All chat messages are archived and can be read by any site participant.

Jjay (Aug 10, 2012 11:13 AM EDT) hi sharon

Kaitlyn (Aug 10, 2012 12:33 PM EDT) hello from Omaha, NE everyone!

Alexcia (Aug 10, 2012 12:53 PM EDT) Hello everyone class will start soon. Are you ready? good luck to everyone



Asynchronous Interactions: Students & Students

Discussion Forums

- Focused topics

[Forums](#) / Muddy Moments

Muddy Moments [New Topic](#) | [Forum Settings](#)

This is an area for you to post topics you need additional explanation on during our live discussion. I will review your postings and plan our discussion based on topics needing clarification. This will count toward your class participation.

[2.3 & 2.4 Ethics, Professionalism, and Specimen Receipt](#) (97 messages - [Topic Settings](#) | [Delete](#))
Post your questions and comments here.

[3.1 & 3.2 Instrumentation & Microtomy](#) (67 messages [New messages](#) [Topic Settings](#) | [Delete](#))
Post your questions and comments here.

[3.3 & 3.4 Matn & Chemistry](#) (68 messages - [New messages](#) [Topic Settings](#) | [Delete](#))
Post your questions and comments here

[4.1 Tissue Identification](#) (69 messages - [New messages](#) [Topic Settings](#) | [Delete](#))
Post your questions and comments here

[4.2 Fixation #1](#) (68 messages - [New messages](#) [Topic Settings](#) | [Delete](#))
Post your questions and comments here

[4.3 & 4.4 Fixation #2 & #3](#) (69 messages - [New messages](#) [Topic Settings](#) | [Delete](#))
Post your questions and comments here.



Synchronous Interactions: Student & Faculty

The screenshot shows an Adobe Connect meeting window. The main content area displays a presentation slide with a red background and white text. The slide asks, "Which schedule should you use when processing for urate crystals?" and includes a table with 13 rows of data. The table has columns for Station, Solution, and five numbered columns (#1 to #5). The data in the table is as follows:

Station	Solution	#1	#2	#3	#4	#5
1	10%NBF	60 min	15 min	0	0	30 min
2	10%NBF	60 min	15 min	0	0	30 min
3	70% alc	60 min	15 min	15 min	0	30 min
4	80% alc	60 min	15 min	15 min	0	30 min
5	90% alc	60 min	15 min	15 min	0	30 min
6	100% alc	45 min	15 min	15 min	45 min	30 min
7	100% alc	45 min	15 min	15 min	45 min	30 min
8	100% alc	45 min	15 min	15 min	45 min	30 min
9	Xylene	60 min	15 min	15 min	60 min	0
10	Xylene	60 min	15 min	15 min	60 min	0
11	Paraffin	45 min	15 min	15 min	45 min	0
12	Paraffin	45 min	15 min	15 min	45 min	0
13	Paraffin	45 min	15 min	15 min	45 min	0

The interface also shows an Attendee List on the left with one participant named 'Bill'. A chat window at the bottom left contains a message: "wouldn't necessarily need to add the glycol or glycerol if using within a couple days". A Q & A window at the bottom right is empty. A note window at the bottom center contains the text: "If you choose to use the teleconference line you may call: Local 278-7008 Long Distance: 1-877-".

- Live Adobe Connect Meeting
- Web Microphone
- Web chat
- Private Q&A
- Teleconference



eLearning Challenges

Technology Challenges

- Robust Infrastructure:
 - ✓ Students must have access to computers: *personal, work, library*
 - ✓ Learning Management System (LMS): *Sakai*
 - ✓ Internet access
 - ✓ Personal to design & implement courses: *Center for Teaching & Learning, PMEG, PD & EC*
 - ✓ IT Support; *24/7 UITS support, free software*



eLearning Challenges

Technology Challenges

- Technology Failures: it will fail, so you need procedures in place. *Oncourse Team monitors and resolves issues within minutes.*
- Easy for students to use: *Tutorials are found on every webpage, if needed.*



eLearning Challenges

- **Technology Challenges**
 - Need for LMS Improvements: *Sakai has development teams in place that continuously create more sophisticated capabilities.*



Major ELearning Challenges

- Effectiveness Challenges
 - Assessment methodology that goes beyond grade comparison. *Rubrics, employer evaluation, professional performance evaluations, technical skills evaluations, verification of practicum hours.*



Bibliography

- Waterhouse, S. (2005). *The power of elearning*. Boston: Pearson Education Inc.
- Butler, D (2003). Barriers to adopting technology for teaching and learning. *EDUCAUSE Quarterly*, 25(2), 22-28.