

HOUSTON COMMUNITY COLLEGE SYSTEM
HISTOLOGIC TECHNICIAN PROGRAM (HT)

COURSE SYLLABUS

HLAB 1401

Introduction to Histotechnology

FALL 2010 \ CRN: 57914

Coleman Campus – Room TBA \ 9:00 – 1:00 PM \ Monday

4 credits (4 lecture) \ 64 hours per semester \ 16 weeks

Course level – Introductory \ Web Enhanced Instruction

Instructor: Larry Langlois, HTL (ASCP)
713-775-9318 cell
BBV email

Note: Utilize email for questions, advanced notice of missing class, on-line tutoring,
or scheduling time for face-to-face tutoring.

Ed. Coordinator: Lawrence Wall, HTL (ASCP)
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713-718-7653 fax
281-813-1392 cell
BBV email
lawrence.wall@hccs.edu

Office hours: MW 2:00 p.m. – 5:00 p.m.
TTh 1:00 p.m. – 5:00 p.m.

Course Description

This course is an introduction to the healthcare environment and the histology laboratory. Topics include laboratory safety and infection control, healthcare professionals, medical terminology, basic anatomy and physiology, laboratory mathematics, communication, and ethics, legal and professional issues.

Course Prerequisite

Acceptance into the program.

Course Rationale

Many students either have minimal experience working in a hospital environment or none at all. This course introduces the prospective histology student to basic policies and/or procedures in the healthcare environment and pathology laboratory to provide excellent patient care as a healthcare provider.

Program Learning Outcomes

A program that prepares individuals, under the supervision of histology laboratory scientists/technologists, to perform routine procedures and tests in the histopathology laboratory. Instruction includes general laboratory procedures and skills; laboratory mathematics; medical computer applications; interpersonal and communication skills; and the basic principles of fixation, tissue processing, embedding, microtomy, H&E staining, and histochemical staining of tissue sections.

Student Learning Outcomes

After completing this course, the student will be able to:

1. Describe laboratory safety practices.
2. Perform laboratory math calculations.
3. Explain laboratory accreditation and certification and identify the roles of laboratorians in the health care setting.
4. Describe routine laboratory tests performed in the pathology department and their purpose.
5. Demonstrate ethical and professional behavior.

Student Learning Objectives

Student will:

- 1.1 Identify safe laboratory practices and principles of infection control by scoring 70% or better on lecture exams.
- 2.1 Review basic math concepts and apply to laboratory math calculations.
- 2.2 after proper instruction perform math problems related to histology.
- 3.1 Name the accreditation and certification agencies and state their functions.
- 3.2 Recognize all health care professionals, state their function and explain the laboratories' role and interaction in the health care setting.
- 4.1 Identify laboratory tests and their purpose by scoring 70% or better on lecture exams.
- 5.1 Describe the principles of ethical behavior, the Hippocratic oath, and the Patient's Bill of Rights.
- 5.2 When presented with an ethical situation, determine the most ethical method to resolve the issue.

Cognitive

With the use of course materials and various teaching methods, the student will demonstrate mastery of the following course objectives by scoring 70% or better on all examinations.

Exam 1

History of Histology Presentation

1. List scientists who have contributed to the development of laboratory equipment, technical procedures and histochemical testing.
2. Micrograph images: identify early microscopes and microtomes.

Common Histology Terminology/Procedures List

1. Define terminology used in the histopathology laboratory that includes personnel, equipment, and basic chemistry.

Exam 2:

Professionalism, Quality Assurance and Legal Issues

1. Describe professional standards for histology technicians and the importance of effective communication.
2. Describe quality assurance practices that are employed in the histology laboratory designed to ensure excellent patient care.
3. Describe the role of risk management and good work practices in limiting sentinel events.
4. Describe the importance of obtaining informed consent and protecting the patient's privacy to avoid medical lawsuits.

Exam 3:

Healthcare Setting, Laboratory Tests and Math

1. Describe organizational structure of healthcare facilities, billing policies, and common tests performed in both the anatomic and clinical areas of the Pathology Department.
2. Accurately calculate percent, dilution, molar and normal solutions.

Exam 4:**Chapter 3: Infection Control and Laboratory Safety**

1. Describe the chain of infection and intervention strategies to limit the spread of infection among patients, family members and employees. Describe hospitals (response to JCAHCO standards) to control the incidences of infection among patients, visitors, and employees.
2. Describe standard body/substance isolation attire (Personal Protective Equipment-“PPE”) and importance of hand washing.
3. Describe OSHA standards of practice to limit exposure to the following hazards:
 - Biohazard, chemical, electrical, fire, and radiation
4. Describe first aide methods for hemorrhaging, shock and heart attack.
5. Describe ways to manage stress and improve one’s sense of wellness.

Exam 5:**Medical Terminology**

1. Identify word elements of medical terms.
2. Define medical terms by associating the meanings of prefixes, root words, and suffixes.

Exam 6:**Human Anatomy and Physiology Review**

1. Identify and describe body positions, planes, cavities, and directional terms.
2. Identify and describe the structural components of cells, nerve cells, and blood cells.
3. Regarding each body system, identify anatomic structure and their function and associated pathological conditions.

Exam 7:**The Circulatory System**

1. Describe the function of the heart, systemic circulatory system, pulmonary circulatory system.
2. Describe cardiovascular pathological conditions and treatment options.
2. Describe the primary steps of hemostasis.
3. Micrograph images: identify major structures of the heart including the conduction system.
4. Micrograph image: identify blood cells.
5. Micrograph image: identify cell/fluid layers of centrifuged blood.

Affective Objectives: Upon receiving appropriate instruction, the student will demonstrate the following attitudes and behaviors as determined by mid-term and end- evaluations.

During the course of the semester, the students will:

1. attentively attend to verbal and demonstrative instruction
2. follow written and verbal instructions
3. communicate effectively in written and spoken English
4. engage in class/laboratory discussions by asking pertinent questions and responding respectfully to other student’s comments
5. demonstrate a willingness to learn and apply new ideas/technical skills to future endeavors
6. demonstrate a positive teamwork ethic by being willing to assist and cooperate with others
7. develop confidence by gradually working independently in a competent manner
8. prioritize and manage work flow within a restricted time frame
9. handle themselves at all times in a professional manner
10. demonstrate honesty and integrity
11. demonstrate commitment to the Histotechnician profession

SCANS Competencies and Foundations

Houston Community College is determined to prepare students with the knowledge and skill necessary to succeed in the workplace. The following competencies and foundation skills have been designed into the curriculum of the course to accomplish this.

- C10 Teach Others
HLAB 1401 assignment: the student is required to prepare an oral presentation on a chosen disease from internet references with the idea of teaching the class what they learned about the disease. The oral report counts as an assignment grade.
- C15 Understands Systems
HLAB 1401 lecture/examination: the student's retention of hospital systems is evaluated by examination.
- C17 Improves and Designs Systems
HLAB 1401 assignment: the student will be required to analyze case studies and make suggestions that would modify and improve treatment for the patient. This assignment must be turned in to verify completion.
- C18 Select Technology
HLAB 1401 lecture/examination: the student's retention of identifying the use of major laboratory equipment is evaluated by examination.
- F1 Reading
HLAB 1401 lecture exam: the student is required to read the textbook and course materials. Assessment will be based on their performance on lecture exams.
- F2 Writing
HLAB 1401 Oral Report assignment: the student is required to write a summary of their findings and distribute a copy to the instructor and fellow students. The summary will count toward an assignment grade.
- F3/4 Arithmetic/Mathematics
HLAB 1401 lecture/examination: the student is required to solve problems pertaining to reagent preparation that is evaluated by performance on an exam.
- F5 Speaking
HLAB 1401 oral report: the student is required to present an oral report. Assessment will be based upon communication skills and meeting content requirements. This will count toward an assignment grade.
- F6 Listening
HLAB 1401 lecture exam: the student is required to listen to lecture material and instructions and will demonstrate their listening skills by following directions.

Course Calendar

Week	Topic of Instruction
1.	UNIT 1: History and Terminology Histology Terminology/Procedures History of Histology Lecture Scientist's contribution to the field.
2.	Unit Exam 1 (History/Terminology) Tentative Library Tour Distribute Oral Report sign up list Cervical cancer presentation
3.	LABOR DAY HOLIDAY
4.	UNIT 2: Professionalism, QA & Legal Issues Professionalism Lecture Quality Assurance/Legal Issues Lecture Test Review
5	Unit exam 2 test Lab math presentation
6.	Unit 3: Healthcare Setting, Lab Services, and Lab Math
7.	Unit 3: Healthcare Setting, Lab Services & lab math Healthcare Setting Lecture, part 2 Cervical Cancer Presentation (content and normal staining results)
8.	Unit 4: Infection Control & Lab Safety UNIT EXAM 3: Health Setting, Lab Math/Services Infection Control and Lab Safety Lecture, part 1
9.	Unit 4: Infection Control & Lab Safety Infection Control and Lab Safety Lecture, part 2
10.	Unit:5 Medical Terminology UNIT EXAM 4: Infection Control & Lab Safety
11.	Unit 6: Human Anatomy/Physiology UNIT EXAM 5: Medical Terminology Human Anatomy/Physiology Lecture, part 1
12	Unit 6: Human Anatomy/Physiology Human Anatomy/Physiology Lecture, part 2
13.	UNIT EXAM 6: Human Anatomy/Physiology Oral Report Presentations
14.	Unit 7: Circulatory System Circulatory System Lecture, part 1 and 2
15.	Unit 7: Circulatory System
16.	UNIT EXAM 7: Circulatory System

Instructional Methods

Instructional strategies will include classroom lectures and collaborative interaction.

Instructional Materials

Instructional materials include the textbook, online lecture PowerPoint presentations, hand-outs, video presentations (if available), and internet access.

All HLAB books are sold at the West Loop Campus Bookstore or can be ordered online. Numerous reference books are available at the HAM-TMC library and in faculty offices. The Computer Center located on the first floor is equipped with fully operational computers available for student access.

The required textbook for this course is:

Phlebotomy Essentials (4th edition) by McCall and Tankersley. Lippincott, Williams & Wilkins.
ISBN 0-7817-6138-7

HAM-TMC Library
1133 John Freeman Blvd.
Houston, Texas 77030
713-795-4200

Circulation Privileges:

Present your student ID, current registration invoice, and registration form. The registration form can be Downloaded at <http://resource.library.tmc.edu/circ/docs/memberregisform.pdf>

Remote TMC Educational Access:

Go to <http://resource.library.tmc.edu/resources/>

Other HCC libraries:

HCC Central Campus
1300 Holman, 3rd floor
Houston, Texas 77004
713-718-6133

HCC West Loop Campus
5601 West Loop South
Houston, Texas 77081
713-718-7880

Web Sites of Interest:

Professional Organizations

American Society of Clinical Pathologist: <http://www.ascp.org/>

Joint Commission on Accreditation of Healthcare Organizations: <http://www.jcaho.org/>

College of American Pathologists: <http://www.cap.org/>

Occupational Safety and Health Administration: <http://osha.gov/>

National Accrediting Agency for Clinical Laboratory Sciences: <http://www.naacls.org/>

Centers for Disease Control and Prevention: <http://www.cdc.gov/>

National Society for Histotechnology**: <http://www.nsh.org/>

Texas Society for Histotechnology**: <http://www.txsh.org/>

Histonet (email between histology technicians): http://www.histonet.org/site_sendpics.asp

The Histotechs' Home Page (various links-jobs, procedures, and theory): <http://www.histology.to/>

**It is recommended that you join one or both of the histology professional organizations.

Research related Web Sites:

Centers for Disease Control and Prevention: <http://www.cdc.gov/>

The Histotechs' Home Page: <http://www.histology.to/>

Web MD: <http://www.webmd.com/>

Histology Resource: <http://swehsc.pharmacy.arizona.edu/exppath/micro/histology.html>

Martindale Histology: <http://www.martindalecenter.com/MedicalAnatomy.html>

Web Path: <http://medlib.med.utah.edu/WebPath/webpath.html#MENU>

Search Engines: "Histology" and specific names of diseases.

Student Assignments

Signing and returning the "syllabus acknowledgement form" in class during the second week of instruction.

Another option is to email the completed form to the instructor on BBV on the second day of class.

NOTE: Five points will be deducted from your final grade if it is handed in late.

Oral Report:

Students will be paired into groups to research two diseases of an organ system. The oral reports should be approximately 10-15 minutes. Possible online reference sources can be found in this syllabus. A sign-up sheet will be distributed with suggested topics. You cannot pick cervical cancer because this topic is part of your instruction for this course.

The content of the oral report must include symptoms, usual age of onset and/or societal prevalence, causes (suspected causes), diagnostic tests, standard treatment and its' effectiveness, and your website references. If possible, include relevant images pertaining to the disease. Cite your references in APA format. The content of the cervical cancer lecture presentation follows the above-mentioned guidelines.

Group members encourage one another to finish in a timely manner. Upload your oral report using the "add attachment" button located on the BBV "Assignments" page by the due date to avoid 5 points being deducted from your grade. For backup purposes, save your presentation on a CDROM disc or flash drive in case the internet is offline on the day of presentations.

Discussion Assignments:

There two assignments to be completed under a "Discussions" topic. The first assignment involves writing a brief synopsis of a scientist's contribution to the field of Histotechnology. The second assignment involves understanding standard quality control work practices in the histopathology laboratory pertaining to limiting loss of biopsy tissue. For each assignment, read the instructions, grading criteria and the due date. Late assignments will be given a grade of "0".

Medical Ethics Assignment:

After medical ethics is addressed in class, the instructor will divide the class into groups of 4-5 students. Each group will be given the same two medical ethics scenarios to discuss the questions posed for each scenario. In turn, each group's spokesperson will share the group's ideas with the rest of the class. Any student who is not present during this class discussion MUST complete the two ethic scenario assignments and hand them in to the instructor to receive credit.

Student Assessments

Seven unit exams

Seven online quizzes

Oral Report

Two BBV discussion assignments

Medical ethics assignment

Syllabus Acknowledgement form

Exams include multiple choice, true and false, and matching questions with images taken from all PowerPoint presentations.

Program/Discipline Requirements

HLAB 1401 is a required course to earn the Histologic Technician AAS degree. All students must obtain a grade of 70 or better to receive a passing grade. Any student whose scores 69 or below will fail the class.

A = 100 – 90:

B = 89 – 80:

C = 79 – 70:

F = 69 and below

Instructor Grading Criteria

HLAB 1401 is a Four-hour lecture course. Students will be graded according to the following:

Unit exams	50%
Quizzes	10%
Oral Report	25%
BBV Discussion Assignments	15%
Medical ethics	Pass/Fail
Late Syllabus Ack. Form	5 points deducted from final grade

Materials for the exams will come from the textbook, slide presentations, assigned outside readings, and any handouts given to students during class. A thorough knowledge of unit objectives will ensure adequate performance on exams. Students will be allowed to repeat one of the unit exams that they scored below 70%.

This repeat exam must be taken within one week of the original exam and the highest grade allowed is 70%.

Students must maintain a 70% average on all unit exams to pass the class regardless of their grades on the other assignments. After meeting this first condition, your overall average for all assessments must also be 70% to pass the course.

No makeup exams are given for unexcused absences. An absence on test day will result in a grade of “0”. If a student must be absent for a test, the student is responsible for informing the instructor in advance and providing the instructor with appropriate documentation to explain the absence in order to take a makeup exam.

The quiz questions are similar to the unit exam questions. The quizzes are found on the BBV “Assessments” page. All online quizzes/exams are accessible only by using the Respondus Lockdown browser. To download this browser to your laptop/home computer, click on the link to open quiz one and follow the download instructions. Once downloaded, always use this browser to login to BBV to take any quizzes and unit exams.

It is in your best interest to study for the exam and take the quiz to test your retention of the information. You will have approximately 1 minute to answer each question. More time is given for the Cardiovascular quiz to identify basic heart anatomy and the electrical conduction system. A grade of “0” will be given for students who do not complete the quiz before midnight on the eve of the unit exam.

Instructor’s Requirements

As your instructor, it is my responsibility to:

1. Provide the course syllabus and course outline that describes student expectations, assignments, exam content, and grading policies
2. Facilitate an effective learning environment through class activities, discussions, and lectures
3. Inform students of policies such as attendance, withdrawal, tardiness and making up missed exams
4. Be available to tutoring and discussing other issues outside of the classroom whether during office hours or online communication.

To be successful in this class, it is the student's responsibility to:

1. Read lecture material before class, define unknown terms and come prepared to ask questions
2. Attend all classes, pay close attention to instructions given by the instructor, follow procedures and participate to the fullest extent
3. Immediately after the lecture, review lecture material covered and answer learning objectives
4. Students should not study the night before the exam. Rather, plan to study a certain amount each day to achieve academic success

HCC Policy Statement: Disability Notification

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Services Office at their respective college at the beginning of each semester. Faculty are authorized to provide only the accommodations requested by the Disability Support Services Office. If you have any questions, please contact the Disability Counselor at your college or the District Disability Office at 713-718-5165. Contact Dr. Raj Gupta, Coleman College ADA counselor, at 713-718-7631.

HCC Policy Statement: Academic Honesty

Plagiarism, cheating, and other forms of academic dishonesty are not only violations of the college system and the rules of this class, but are unethical and unprofessional. Students engaging in any form of academic dishonesty are subject to immediate dismissal from the program.

You are expected to be familiar with the College's Policy on Academic Honesty, found in the catalog and student handbook. Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty. "Scholastic dishonesty": includes, but is not limited to, cheating on a test, plagiarism, and collusion.

Cheating on a test includes:

- Copying from another student's test paper;
- Using materials not authorized by the person giving the test;
- Collaborating with another student during a test without authorization;
- Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of a test that has not been administered;
- Bribing another person to obtain a test that is to be administered.

Plagiarism means the appropriation of another's work and the unacknowledged incorporation of that work in one's own written work offered for credit.

Collusion means the unauthorized collaboration with another person in preparing written work offered for credit.

Possible punishments for academic dishonesty may include a grade of 0 or F in the particular assignment, failure in the course, and/or recommendation for probation or dismissal from the College System. (See the Student Handbook).

HCC Policy Statement: Attendance

Attendance: Students are expected to attend all classes and labs regularly. Students are responsible for [any and all] materials covered during their absences, and it is the student's responsibility to consult with the professors for make-up assignments. A student may be dropped from a course for excessive absences in excess of 12.5% of the hours of instruction. For example: For a three-credit hour lecture, a student may be dropped after six hours of absence.

HCCS professors cannot assign a "W" for any student after the official withdrawal date. "Administrative withdrawals are the discretion of the professor. If you are doing poorly in the class, but you have not contacted your professor to ask for help, and you have not withdrawn by the official withdrawal date, it will result in you receiving a grade of "F" in the course.

HCC Policy Statement: Withdrawals

Students are responsible for officially withdrawing from classes. The last day to drop with a "W" is 11/18/2010. Students who fail to withdraw from a class before this date will receive a grade of "F". Before you withdraw from your course, please take the time to meet with the instructor to discuss why you feel it is necessary to do so. The instructor may be able to provide you with suggestions that would enable you to complete the course. Your success is very important.

To help you avoid having to drop/withdraw from any class, contact your professor regarding your academic performance. You may also want to contact your counselor to learn about helpful HCC resources (e.g. online tutoring, child care, financial aid, job placement, etc.). HCC has instituted an Early Alert process by which your professor may “alert” you and the counselors that you might fail a class because of excessive absences and/or poor academic performance.

- **Students should check HCC’s Academic Calendar by Term for drop/withdrawal dates and deadlines. Student may also check the course syllabus for the withdrawal date.**
- **If a student decides to drop or withdraw from a class upon careful review of other options, the student can drop online prior to the deadline through their HCC Student Service Center:**
<https://hccsaweb.hccs.edu:8080/psp/csprd/?cmd=login&languageCd=ENG>

Course Withdrawals-First Time Freshmen Students-Fall 2007 and Later

Under Section 51.907 of the Texas Education Code “an institution of higher education may not permit a student to drop more than six courses, including any course a transfer student has dropped at another institution of higher education.” Beginning in fall 2007, the Texas Legislature passed a law limiting first time entering freshmen to no more than **SIX** total course withdrawals **throughout** their educational career in obtaining a certificate and/or degree.

HCC Policy Statement: Early Report Program

Early Alert Program: To help students avoid having to drop/withdraw from any class, HCC has instituted an Early Alert process by which your professor *may* “alert” you and HCC counselors that you might fail a class because of excessive absences and/or poor academic performance. It is your responsibility to visit with your professor or a counselor to learn about what, if any, HCC interventions might be available to assist you – online tutoring, child care, financial aid, job placement, etc. – to stay in class and improve your academic performance.

HCC Policy Statement: Repeating a course 3 times

Repeat Course Fee: The State of Texas encourages students to complete college without having to repeat failed classes. To increase student success, students who repeat the same course more than twice, are required to pay extra tuition. The purpose of this extra tuition fee is to encourage students to pass their courses and to graduate. Effective fall 2006, HCC will charge a higher tuition rate to students registering the third or subsequent time for a course. If you are considering course withdrawal because you are not earning passing grades, confer with your instructor/counselor as early as possible about your study habits, reading and writing homework, test taking skills, attendance, course participation, and opportunities for tutoring or other assistance that might be available.

THIS SYLLABUS IS SUBJECT TO CHANGE WITHOUT FURTHER NOTICE