THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF HEALTH SCIENCES

CLINICAL LABORATORY SCIENCE PROGRAM

STUDENT HANDBOOK

Class of 2026 – 2028

A NATIONALLY ACCREDITED PROGRAM
Accredited by the
National Accrediting Agency for Clinical Laboratory Sciences
5600 N. River Road, Suite 720,
Rosemont, Illinois 60018; Ph:(773)714-8880

The policies, procedures, and UTEP CLS Program requirements outlined in this handbook are in effect as of Summer Session 2026. Entering students are responsible for program requirements in effect at the time of initial enrollment. Policies and procedures are subject to change and are communicated to all Clinical Laboratory Science students upon approval by the CLS faculty.

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Inquiries regarding compliance may be directed to Mary Solis, Director, Chief Compliance and Ethics Officer (915) 747-6087 mavitia@utep.edu . The University of Texas at El Paso Office of Institutional Compliance is located in Kelly Hall, Room 308, 500 W University, El Paso, Texas 79968, E: complianceoffice@utep.edu eoaa@utep.edu P: (915) 747-6478 F: (915) 747-6486

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The University of Texas at El Paso

College of Health Sciences

Clinical Laboratory Science Program

Welcome

Welcome to the UTEP College of Health Sciences and the Clinical Laboratory Science Program. Congratulations on choosing a career path which will prepare you to become a member of the health care team. Through the analysis of body fluids, tissues, and cells, the clinical laboratory scientist/medical laboratory scientist play an integral role in the detection, diagnosis, monitoring and treatment of disease. According to the CDC, 14 billion lab tests are ordered annually, and 70% of medical decisions depend on laboratory results (https://www.cdc.gov/lab-week/about-archive.html#:~:text=These%20laboratory%20heroes%20conduct%20approximately,laboratories%20in%20the%20healthcare%20industry.) That means that laboratory professionals play a vital role in healthcare and patient advocacy.

The Bureau of Labor Statistics recently stated that employment opportunities for clinical laboratory scientists / medical laboratory scientists are expected to exceed most occupations through the decade with new jobs being needed each year and expected to grow 2%, and in Texas, the 2022-2032 percent change is 17.2% (https://www.bls.gov/ooh/healthcare/clinical-laboratory-technologists-and-technicians.htm; https://www.twc.texas.gov/data-reports/lmi-occupational-projections). These projections are based on the volume of laboratory testing, sharply increasing in the coming years and on advances in clinical laboratory sciences creating new tests and laboratory procedures.

DESCRIPTION OF THE MEDICAL LABORATORY SCIENTIST PROFESSION

The medical laboratory scientist is qualified by academic and applied science education to provide service and research in clinical laboratory science and related areas in rapidly changing and dynamic healthcare delivery systems. Medical laboratory scientists perform, develop, evaluate, correlate and assure accuracy and validity of laboratory information; direct and supervise clinical laboratory resources and operations; and collaborate in the diagnosis and treatment of patients. The medical laboratory scientist has diverse and multilevel functions in the principles, methodologies and performance of assays; problem-solving; troubleshooting techniques; interpretation and evaluation of clinical procedures and results; statistical approaches to data evaluation; principles and practices of quality assurance/ quality improvement; and continuous assessment of laboratory services for all major areas practiced in the contemporary clinical laboratory. Medical laboratory scientists possess the skills necessary for financial, operations, marketing, and human resource management of the clinical laboratory.

Medical laboratory scientists practice independently and collaboratively, being responsible for their own actions, as defined by the profession. They have the requisite knowledge and skills to educate laboratory professionals, other health care professionals, and others in laboratory practice as well as the public.

The ability to relate to people, a capacity for calm and reasoned judgment and a demonstration of commitment to the patient are essential qualities. Communications skills extend to consultative interactions with members of the healthcare team, external relations, customer service and patient education. Medical laboratory scientists demonstrate ethical and moral attitudes and principles that are necessary for gaining and maintaining the confidence of patients, professional associates, and the community.

Accreditation

The UTEP CLS Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The Council for Higher Education Accreditation (CHEA) recognizes NAACLS. NAACLS is located at 5600 North River Road, Suite 720, Rosemont, IL, 60018-5119 and may be contacted at 773-714-8880, www.naacls.org or e-mail at info@naacls.org.

Clinical Laboratory Science Program Mission Statement

In accordance with the mission of the UTEP College of Health Sciences, the UTEP Clinical Laboratory Science Program (CLS) seeks to provide competent Medical Laboratory Scientists that will fulfill the current and future demands of the U.S. – México border populations and other areas throughout the United States.

The CLS Program is committed to providing high-impact, interprofessional, and transformative educational experiences that develop knowledgeable, skillful, and ethical professionals who will fulfill leadership positions and contribute to the international growth and advancement of the healthcare community.

The UTEP CLS program is also dedicated to the pursuit of scholarly endeavors, continuing education, service, lifelong learning, and UTEP's EDGE initiatives.

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Clinical Laboratory Science Program Goals

Program Goals. The Clinical Laboratory Science Program seeks to prepare entry level clinical/medical laboratory scientists (CLS/MLS) who are competent, demonstrate professionalism reflective of the standards of practice and code of ethics which underlie the profession, and continue to learn throughout their professional career.

The UTEP CLS Program strives to:

- Prepare entry level medical laboratory scientists who will competently and ethically perform diagnostic laboratory testing with the purpose of contributing to the improvement of the population's health and wellness.
- Provide students with the necessary knowledge and experience to qualify for national MLS certification examinations
- Provide opportunities for professional development to enhance students' motivation to continue the pursuit of lifelong learning by regularly participating in continuing education activities and programs.
- Prepare students to become leaders in the medical laboratory profession within technical, educational and administrative roles.

Service Goal. Service at all levels (program, department, college, university and the community) plays an integral role in the mission of the CLS program. The program faculty and students will actively engage in service to the university, professional organizations, and public and private health agencies, especially those within Hispanic and border communities.

Marketable Skills

- Think critically and analyze and solve problems
- Communicate clearly and effectively
- Skills to perform diagnostic laboratory testing competently and ethically with the purpose of contributing to the improvement of the population's health and wellness.
- Obtain the entry-level credential – MLS(ASCP) for practicing in the medical / clinical laboratory per NAACLS accredited program for graduates
- Students will be able to demonstrate and apply their knowledge, skills, and abilities to perform, interpret, and report-out patient clinical laboratory test results as a clinical laboratory scientist.
- Students will gain experience through professional development offered through the program and UTEP EDGE experiences.
- Discuss the clinical significance of abnormal results obtained, correlating patient results as to possible disease and/or therapy states in all areas of the medical / clinical laboratory

DESCRIPTION OF ENTRY LEVEL COMPETENCIES OF THE MEDICAL LABORATORY SCIENTIST

At entry level, the medical laboratory scientist will possess the entry level competencies necessary *to perform* the full range of clinical laboratory tests in areas such as Clinical Chemistry, Hematology, Hemostasis, Immunology, Immunohematology/Transfusion Medicine, Microbiology, Urine and Body Fluid Analysis, Laboratory Operations, and other emerging diagnostics, and will play a role in the development and evaluation of test systems and interpretive algorithms.

The medical laboratory scientist will have diverse responsibilities in areas of analysis and clinical decision-making, regulatory compliance with applicable regulations, education, and quality assurance/performance improvement wherever laboratory testing is researched, developed or performed.

At entry level, the medical laboratory scientist will have the following basic knowledge and skills in:

A. Application of safety and governmental regulations and standards as applied to clinical laboratory science;

B. Principles and practices of professional conduct and the significance of continuing professional development;

C. Communications sufficient to serve the needs of patients, the public and members of the health care team;

D. Principles and practices of administration and supervision as applied to clinical laboratory science;

E. Educational methodologies and terminology sufficient to train/educate users and providers of laboratory services;

F. Principles and practices of clinical study design, implementation and dissemination of results.

Medical Laboratory Scientists are competent in:

- Developing and establishing procedures for collecting, processing, and analyzing biological specimens and other substances;
- Performing analytical tests of body fluids, blood cells, and other substances;
- Integrating and relating data generated by the various laboratory departments while making decisions regarding possible discrepancies;
- Confirming abnormal results, executing and verifying quality control procedures, and developing solutions to problems concerning the generation of laboratory data;
- Evaluating quality control results and quality assurance measures, and instituting proper procedures to maintain accuracy and precision;
- Establishing and performing preventive and corrective maintenance of equipment and instruments as well as identifying appropriate sources for repairs;

- Developing, evaluating, and selecting new techniques, instruments and methods in terms of their usefulness and practicality within the context of a given laboratory's personnel, equipment, space and budgetary resources;
- Demonstrating professional conduct and interpersonal skills with patients, laboratory personnel, other health care professionals and the public;
- Establishing and maintaining continuing education as a function of growth and maintenance of professional competence;
- Providing leadership in educating other health personnel and the community;
- Exercising principles of management, safety, and supervision;
- Applying principles of educational methodology, and
- Applying principles of current information systems.

UTEP CLS Program Learning Objectives:

Graduates of the CLS program will be prepared for successful careers in the Medical Laboratory or related areas of further study by demonstrating:

1. Specific knowledge of theory underlying laboratory testing using analytical, interpretative, and critical thinking skills consistent with entry-level medical laboratory science practice.

2. Appropriate techniques for laboratory procedures from simple to complex including pre-analytical, analytical and post-analytical interpretation.

3. Commitment to all laboratory regulations, confidentiality and quality assurance practices.

4. Effective communication in a variety of styles to varying audiences.

5. Professional and ethical behaviors when working as a member of a diverse health care team.

6. Effective use of basic management, education and research skills

CLS LEARNING OBJECTIVES	**SELECTED COURSE ASSIGNMENTS**	**ASSESSMENTS**
1. Demonstrates knowledge of theory underlying laboratory testing using analytical, interpretative, and problem solving skills.	ALL CLS COURSES	Exams and quizzes All students must achieve a minimum of 75% final grade in all didactic classes. All students must achieve a minimum of 75% final grade in all preceptorship (clinical) classes.

2. Performs laboratory procedures from simple to complex, including specimen collection and processing, analysis, interpretation, and use of quality assurance procedures	A. All CLS Lab courses B. Preceptorships	A 1. Pre and Post lab quizzes A 2. Lab practical exams A.3 All students must achieve a minimum of 75% final grade in all lab courses B 1. Clinical performance evaluation B2. All students must achieve a minimum of 75% final grade in all preceptorship (clinical) classes
3. Demonstrates commitment to all laboratory regulations, confidentiality and quality assurance practices	A. All CLS lab courses B. Preceptorships	A1. Safety quiz A2. Safety and biohazard certificate form UTEP environmental Health and Safety office A3. Lab practical exams B. Clinical performance evaluation
4. Communicates in a variety of styles to varying audiences.	A. Oral presentations and group projects in first year CLS didactic courses B. Oral and written presentations in CLS Education class C. Communication of patient lab results during health fairs D. Computer usage at clinical sites	A. Evaluation rubrics B. Evaluation rubric C. Evaluation rubrics D. Clinical performance evaluation
5. Demonstrates professional and ethical behavior.	A. Attendance and punctuality expectations on campus and at clinical sites B. Completion of course assignments by due dates C. Maintaining regular communication with program faculty and following through with recommendations	A. Attendance recorded in classes and at clinical site B1. Grading rubric and recording for didactic courses and preceptorship B2. Clinical performance evaluations C1. Mentoring sessions with CLS Faculty C2. Clinical performance evaluations D1. Documentation of unsafe practice D2. Clinical performance evaluations

	D. Rigorously practicing all safety procedures	
6. Demonstrates effective use of basic management, education and research skills.	A. Discuss components of laboratory supervision and education. B. Prepare objectives and test questions to accompany a presentation C. Prepare a research proposal / presentation	A. Discussions in education, management, and research classes B. Grading rubric homework and capstone education project C. Research course assignments and poster presentations.

Learning Outcomes

1. Students will demonstrate entry-level medical laboratory science skills at or before the completion of didactic coursework prior to entering clinical rotations by achieving a minimum of 75% final grade on all classes

2. Second year professional phase students will demonstrate entry-level skills at or before completion of their preceptorship in all three NAACLS enforced learning domains in 4 major areas (microbiology, clinical chemistry, hematology, immunohematology) and 3 minor (serology, body fluids, coagulation) CLS core competency areas by achieving a minimum of 75% final grade on all preceptorship classes.

3. Students will be able to demonstrate knowledge, skills, and abilities to perform, interpret, and report-out patient clinical laboratory test results as a clinical laboratory scientist by utilizing their skills and knowledge in community based health fair capstone projects.

About the UTEP Clinical Laboratory Science Program

The CLS Program at the University of Texas at El Paso offers three semesters of classes and laboratories and two semesters of clinical preceptorships in conjunction with several clinical laboratories in El Paso. Clinical affiliates in Texas include hospitals in Huntsville, Gainesville, La Grange and Coleman. These Texas clinical affiliates provide students with stipends. Additional clinical affiliates are located in Las Cruces, NM. Students attending preceptorships in El Paso and Las Cruces return to the university twice a week to complete classes in Molecular Diagnostics, Education, Ethics, Research, Management and Senior Seminar courses. Senior CLS students located out of the El Paso-Las Cruces area will take these courses on-line. Refer to the Preceptorships syllabi for details. These are structured courses including practical achievements, the mastery of skills and techniques, and the development of attitudes and behaviors indigenous to a professional clinical laboratory scientist.

I. The Academic Program

The Southern Association of Schools and Colleges accredit the University of Texas at El Paso. The Clinical Laboratory Science Program is additionally accredited by The National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Road, Suite 720, Rosemont, Illinois, 60018; Phone: (773) 714-8880.

A. Address and phone number of the CLS program is:

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Clinical Laboratory Science Program
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C. Classroom Accommodations

If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass. **Accommodations are not given after the fact.**

D. If a student is not successful in earning at minimum of 75% in any of the CLS courses, the student will be dismissed from the program. The student may reapply to the program but will be **REQUIRED to AUDIT all lecture courses that the student has been successful in and earn at least a 75% in the audited classes. In addition, the returning student must also arrange for a laboratory skills review in all laboratory classes they have taken and passed.** During the auditing of courses, the student is required to attend the classes and take all exams and pass the exams with a minimum of 75%. **If the returning student is not successful at obtaining the minimum standards, the student may not return to the program**.

E. Leave of Absence Policy: Students who are in good academic standing and must temporarily withdraw from the major due to unavoidable circumstances such as medical problems or military duty should request a leave of absence from the program. Documentation of the reason for the leave request will be required and will be considered by the UTEP CLS Faculty.

If the reasons for the leave request are deemed appropriate, the student will receive communication indicating that the Leave of Absence has been granted. These students are not

dismissed from the program and will be placed in the first available space once they are able to return. **NOTE: If the Leave of Absence is extremely lengthy, a condition of readmission may be that some or all of prior coursework is repeated (audited) to ensure academic success.**

F. See Suggested Course sequence at the end of the document

G. See list of course descriptions at the end of the document.

H. **Write-up Policy**: A "write-up" is issued to students who do not follow policies, procedures, or expectations established by the CLS Program and outlined in course syllabi. The purpose of a write-up is not punitive; rather, it is intended to help students understand the importance of adhering to professional standards, policies, and protocols required in the Medical Laboratory profession. A write-up also serves as a formal warning that repeated violations may lead to additional disciplinary action, including suspension or dismissal from the CLS Program. Examples of behaviors that may result in a write-up include, but are not limited to, excessive tardiness, absences from orientations, classes, laboratories, clinical rotations, or community engagement activities, failure to notify appropriate personnel of an absence, and unprofessional behavior. In many hospital settings, an MLS employee may be dismissed after receiving a third write-up. Similarly, within the CLS Program, a student who receives three write-ups will be placed on notice, and a fourth write-up may result in loss of the 10% affective/laboratory grade and/or rotation evaluation scores and possible dismissal from the program due to affective domain concerns.

II. The Clinical Practicum

Four separate courses are included in the Clinical Practicum:
PRECEPTORSHIP I (Some students may start 2 weeks before or end 2 weeks after the semester)
PRECEPTORSHIP II
PRECEPTORSHIP III (some students may start 2 weeks before the semester)
PRECEPTORSHIP IV

Completion of all professional courses in the junior and senior year leads to the award of Bachelor of Science in Clinical Laboratory Science and eligibility for the national certification examination. The certification examination is offered by The Board of Certification, American Society for Clinical Pathologists (ASCP). Students' grades are not dependent upon passing the MLS ASCP (BOC) exam.

See Preceptorship syllabi for details.

III. Admission to Professional Phase of Program (Upper Division)

Admissions criteria and capacity policy

A. The number of students admitted to the program is limited by the size of the UTEP CLS student laboratories and the number of clinical affiliated laboratories. A typical class size ranges from 20 – 32 students. **Students may be REQUIRED to attend Preceptorship out of the El Paso area at their own expense.** If students do not volunteer to take an out of town Preceptorship then students will be chosen via a lottery method **in the month of October of their 1st year professional phase classes. This allows students approximately 10 months to prepare for out of town rotations. If a student chooses not to accept the out of town rotation then that student must be aware that they will not have a rotation for their senior year and will not graduate.**

Based on availability, students may not be immediately guaranteed a clinical assignment during the regular semester and thus may have to begin clinical rotations earlier than the start of the semester for the fall and spring semesters and or continue through the winter break. Students' spring breaks may vary; however, all students do have a "spring break". Students should refer to their individual preceptorship schedule to note when their assigned spring break is scheduled.

For more specific information please contact the UTEP CLS Clinical Coordinator.

Students hoping to enter the professional phase of the program *must* complete all academic requirements prior to starting the upper division classes in the Fall semester.

Students completing approximately 72 semester hours of prerequisite courses must apply for the professional phase of the program by January 31st. Applicants must have an overall GPA of 2.75 and a 2.5 GPA in math and sciences. A student may be accepted conditionally. A limited number of clinical sites are available; therefore, students will be selected to enter the professional phase of the program based upon stated availability and begin the professional phase once a year in the fall session.

All pre-professional course work must be completed prior to enrolling in the professional Clinical Laboratory Science courses.

All students beginning the professional courses will be required prior to the clinical practicum to show evidence of health insurance, professional liability insurance (included with tuition), current CPR certification, current immunizations and titers, including, but not limited to, a Hepatitis B and Influenza / COVID vaccination and a 2 step TB test. Some clinical facilities may require additional fingerprinting and current drug screening at an additional student expense. In addition, hospital affiliates may ask for proof of Health insurance and my conduct random drug screens. Students must also complete City-Wide orientation and orientations specific for various clinical facilities. A grade of "C" or higher must be earned in each CLS class. **Issuing of the BS degree IS NOT contingent upon the student's passing of any type of external certification or licensure examination.**

B. CLS students compete for the professional phase of the program as only a maximum of 30 students will be accepted.

C. Students are selected using the following criteria:
   a. GPA of 2.75 or better in the Sciences/Math
   b. Overall GPA of 2.5 or better
   c. Completion or enrollment in CLSC 2210, 2212, 3310 and 3357
      *Second BS degrees may have course substitution but MUST take CLSC 3357
   d. Application to the CLS upper division
   e. Students selected will begin the summer semester of each new academic year

D. **Background checks and Drug Screens**: Students must undergo and pass a background check and drug screen **prior to being admitted into the Clinical Laboratory Science Program**. Information concerning the background checks and drug screens may be found at the UTEP College of Health Sciences web site under student resources.

IV. General Policies and Information for New CLS Students

A. Vaccinations (***Please see Compliance Check List at the end of the handbook)***

a. All students must have at least 2 of the 3 Hepatitis B vaccines prior to Fall semester of the upper division.
b. All other vaccinations will be up-to date, including a two-step test for TB
c. Vaccination records will be taken to the UTEP Student Wellness Center

B. Attendance

a. Attendance is defined as being present and ready to begin at the specified time for the class or lab period, including dressed in a lab coat and gloved for laboratory class periods, and staying for the full length of the class. Tardiness occurs after the class period begins or in leaving prior to the end of a class period. Laboratory instructions and quizzes will be given at the start of the class or laboratory period. Students missing these instructions or quizzes due to tardiness should not expect either the instructor or their classmates to be responsible for repeating missed instructions. Students may earn a zero grade for the missed quizzes.

b. Students are expected to be <u>on</u> <u>time</u> for all classes and to keep absences to an absolute minimum. **Students may be dropped from the class due to excessive absences. See course syllabi for details.**

c. An absence may be "excused" if it is the result of an illness of the student or dependent, an automobile accident/disablement, or the hospitalization of a student or of a member of the student's immediate family, or events of a greater untoward magnitude.
   - In cases wherein the need to be absent is known in advance, the student shall contact the instructor (or, if the instructor is unavailable, the departmental office) no less than 24 hours prior to class time. Contact may be in person, by phone or by e-mail.
   - If requested by the instructor or the departmental office, the student should be prepared to present documentation of the reason for the absence.
   - If the student's absence from a session is excused, the format for making up the laboratory will be at the discretion of the primary instructor. Because of limited laboratory sample availability and/or because of the cost and/or stability of the reagent, the student may not be able to make up a "wet" lab. However, the student is still responsible for understanding fully the procedure/technique performed. If the primary instructor determines it is not practical to repeat the wet lab due to an excused absence, the student will be given a comparable exercise. The student will submit the assignment to the primary instructor within 4 school days of your return to school
   - Students with excused absences will be permitted to make up graded sessions. The graded exercise may or may not be the same.

d. Students will not be able to make up unexcused absences nor be permitted to make up graded sessions and will receive zero for the exercise/quiz.

C. Competency Based Laboratories

UTEP CLS STUDENTS ARE EXPECTED TO REPORT TO CLASS, LABS AND CLINICLS WELL GROOMED, NEAT, AND CLEAN WITH NON-WRINCKELED ATTIRE. STUDENTS ARE REQUIRED TO WEAR THE UTEP CLS SCRUBS IN ALL STUDENT LABORATORIES AND DURING PRCEPTORSHIP, HEALTH FAIRS AND OTHER OFFICIAL CLS AVTIVITIES.

a. Clinical laboratories are competency based.

b. Laboratory techniques will be practiced in the lab until specific skills are acquired and mastered.

c. Students will demonstrate their competency to perform these specific skills to a CLS faculty member before advancing to the next laboratory test procedure.

d. **Students are expected to read the procedures and protocols of laboratory exercises PRIOR to the scheduled laboratory and a pre-lab quiz will be given.**

e. Depending on laboratory instructor, students may be given laboratory Performance Objectives (PO's**).**

1. PO's are questions pertaining to the laboratory testing policies, procedures and protocols.
2. Students will be required to answer these questions in their own words. Lab exams will include questions from these performance objectives.
3 Class textbooks, reference material, and library services may be used to help the student answer the PO questions. Be aware that the internet is not always a good source of accurate information.
4. If students are answering the PO questions as a group, it is recommended that all students in the group verify the accuracy of all answers. Do not assume the answers are correct without verification and review.

D. Dress Code: Attire

a. Students must wear the CLS scrubs in all labs and other events. Extremes in fad or fashion that may be acceptable for social events or for recreational activities are not acceptable at a professional school. Shorts, cut-offs, tank tops, bare midriffs, low-cut tops, halters, cocktail or evening dresses, miniskirts are some examples of clothing that are considered inappropriate.

b. Tee shirts or any shirt with advertising, slogans, quips or quotes may not be worn at clinical preceptorships. (A slogan does not mean brand names discretely located on a shirt pocket).

c. Students are expected to always maintain professional appearance and personal hygiene standards. This includes wearing clean attire, practicing good personal hygiene such as using deodorant and maintaining a clean and groomed appearance, and ensuring that clothing and undergarments are appropriate, professional, and not visible.

d. the CLS scrubs must be NAVY BLUE and have the UTEP CLS Logo on the left side. Shoes mut be non-porous. Mesh tennis shoes are NOT acceptable. Scrubs are to be purchased from AJ's Uniforms and students will receive a UTEP Student discount.

E. Community Engagement and Leadership (CEL):

CLS students MUST engage in community engagement and leadership service.

First year CLS students must participate in community engagement activities totaling 6 hours. These activities most often occur on a Saturday. UTEP's **Project Move** in the Spring semester is **mandatory** and is considered as the required 6 hours. If a student does not participate in Project Move, the student MUST contact the CLS clinical coordinator to find an appropriate 6 hour activity. **Noncompliance will result in a 5% deduction in your Chemistry II laboratory grades.**

Second year CLS students must acquire a **minimum of 40 hours** of service per year, 20 hours each semester. These activities may occur on some weekends. Any CEL service performed during rotation hours do not count toward the community service requirement but are considered as preceptorship hours. All service activities need to relate to the CLS profession or support the UTEP/CLS program mission. **Participation in the HOPE Health fairs, UTEP Project Move, and the Community Health Fairs are mandatory for senior CLS Students.** Noncompliance will result in the student receiving an Incomplete (I) for Preceptorship IV, until the 40 hours have been completed.

Students in preceptorships out of El Paso-Las cruces area must contact the Clinical Coordinator to arrange community service.

On occasion, the CLS Program is asked to send students to participate in health fairs and other activities. Students are asked to volunteer, however, if students do not volunteer for these activities, then students will be randomly selected to participate in said activities.

***NOTE: Participation in these additional community engagement activities also closely follows the core component of the Community Engagement & Leadership (CEL) designation for this course, as well as UTEP's Edge Advantages mission**

MENTORSHIP OPPORTUNITY:
Second year CLS students may engage in mentoring a CLS Junior student(s). If a Second-year student decides to mentor CLS junior students this must be a year-long commitment and must arrange the details with the UTEP Clinical Coordinator for community service credit. Be advised that this time may most likely occur during the weekend. For every 2 hours you are mentoring with a Junior, you will receive one (1) hour of community service credit.

F. **Evaluation criteria**

Grade	Percent				
A	90-100%	B	80-89%		
C	75-79%	D	74.9 - 70%	F	69% or below

a. **A grade of "C" or higher *must* be earned in each CLS class.**
b. **If a first year CLS student earns less than a "C" in any CLS class, the student will not proceed to the professional phase (preceptorships) until the class has be successfully passed with a C or better.**
c. Students wishing to return to the CLS program after failing a CLSC class must audit all CLSC classes they have successfully completed.
d. Each CLS course instructor has the right to increase the grade percent as the instructor sees fit.

G. **Student organization:**
Newly accepted cohorts will register with UTEP Register Student Organization (RSO) as a

student organization. Annual requirements for student organizations can be found at https://www.utep.edu/student-affairs/selc/student-organizations/annual-requirements.html . The selection of officers should take place by the end of the first week of the fall semester and select a president, a vice president, a secretary, a treasure, and a historian. More than one historian may be selected. A CLS faculty member or Staff member must be designated as the RSO advisor. Officers must create the constitution, attend training, and abide by all RSO requirements and regulations.

H. **Academic Dishonesty**

Any student who commits an act of academic dishonesty is subject to discipline. Academic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person without giving sufficient credit, taking an examination for another person, or any act designed to give unfair advantage to a student or the attempt to commit such acts. Any student suspected of academic dishonesty may also be subject to disciplinary action and may sent to the Office of Student Conduct and Conflict Resolution (OSCAR).

V. PRECEPTORSHIPS:

Clinical placement may not be immediately guaranteed, and students may have to begin clinical rotations before the official start date of the Fall and /or Spring semesters. Students receive their clinical rotation schedule preceptorship syllabus during the preceptorship orientation held during the month of May. Note that this is approximately three months before the clinical rotations begin. **Students are required to submit all compliance documentation ON TIME** and will receive e-mail communications from the UTEP CHS Compliance Coordinator (Ms. Lantican). **If a student fails to submit compliance documentation on time, the student will be dropped from the Preceptorship course** and must wait until the course is offered again. This situation will cause a 1-year delay in graduation.

A. Before beginning the Preceptorship, students *must* show the College of Health Sciences Compliance Coordinator proof of:
   1. Current physical exam.
   2. Current immunizations / titers: MMR, DPT, Oral Polio, Hepatitis B, Influenza, and two step TB test.
   3. Current CPR certification
   4. Liability(included in registration) and Health insurance coverage
   5. Current "City Wide Orientation" (CWO)
   6. Background check and Drug Screen and finger printing (New Mexico requirement)
   7. Any additional documentation required to be specified by the Compliance Office

B. Students are not to enter the clinical laboratory facilities until ALL compliance and clearances have been completed by
   1. The CLS Program
   2. The UTEP Compliance Office
   3. The Clinical Affiliate Education Department and /-or the Human Resources

C. Orientation
   1. The student must take the online citywide orientation before entering Preceptorship.

This is mandatory. STUDENTS WILL NOT BE ALLOWED TO ENTER PRECEPTORSHIPS IF THEY HAVE NOT COMPLETED THE CITY-WIDE ORIENTATION.

2. In addition, each individual clinical affiliate may require mandatory orientation for their facility to familiarize the student or newcomer to their own policies, procedures and protocols. The CLS Clinical Coordinator will advise students of these requirements.

3. Refer to the Preceptorship syllabus for details

D. Supervision

1. Supervision of the student should be available at all times by an affiliate clinical preceptor.

2. It is expected that considerable supervision will be necessary at the start of a rotation and that minimal supervision will be required at the end of the rotation, however, the degree of supervision is left to the discretion of the clinical preceptor in charge.

3. All laboratory testing results which were completed by the student must be reviewed and counter signed by the laboratory scientist in charge prior to being reported out. Under **NO** circumstances should a student sign and release lab results without the acknowledgement and signature of his/her immediate supervisor.

E. Policy and Safety Regulations

1. You are required to observe all safety requirements, regulations, policies and protocols of the UTEP CLS Student Lab and clinical training affiliate, **as if** you were an employee of that facility.

2. All OSHA (Occupational Safety and Health Act of '88) procedures and protocols will be adhered to.

3. **Any conduct unbecoming to a UTEP CLS student, or failure to adhere to any of these policies and procedures, could result in withdrawal from clinical practicum, jeopardizing the completion of the degree in CLS. See preceptorship syllabus for details**.

F. Transportation: Students are required to provide their own transportation to and from clinical sites.

G. Research Rotation: Research rotations are available for students interested in conducting research. Contact the CLS Clinical Coordinator for more information.

H. Tuition and Fees (Subject to Change):

1. UTEP tuition is charged for all courses and clinical practicum per semester. **Tuition and fees are subject to change due to legislative and / or institutional action and become effective when enacted.**

2. Students may expect the following ***approximate*** expenses each semester plus fees which

are not included in the figures below:

Tuition & fee estimate	$ 4,683.40 / 15 Credit hour (resident)
Tuition & fee estimate	$ 12,387.40/ 15 Credit hour (Non-resident)
CLS Major Fee	$ 350.00 / semester
Liability Insurance (estimated)	$ Provided senior year in tuition
Health Insurance	$ see attachment
Books (purchased in 1st year)	$ 600.00 +
Books during 2nd year	$ 250.00 +
Incidental Fees (undergraduate)	Your cost of attendance:

https://www.utep.edu/financial-aid/more-information/cost-of-attendance.html

What you pay to UTEP as a full-time student should be very close to the tuition and fees amounts above: the average Texas resident undergraduate student pays between $8,000 and $9,000 for full-time enrollment in both fall and spring. After you register for courses, you can see the exact amount in **your statement.** You can also see the current tuition rates by credit for each program in the **Student Business Services website.** Our tuition cost has been the same since 2021, and will not increase *at least through 2027*.

I. Professional Dress Code for Student laboratories and Clinical Preceptorship

1. All students will be attired in a CLS scrubs. Jeans are not allowed. Clinical facilities will require wearing specific disposable lab coats.

2. The CLS scrubs are to be worn during clinical rotations. Nametags (UTEP ID) are to be worn at all times.

3. Closed toed shoes will be worn at all times. Wear comfortable flat to low-heeled shoes is recommended. Tennis shoes are acceptable but must be kept clean at all times and **must be made of non-porous materials and meet OSHA requirements. CANVAS OR WEBBED MATERIALS ARE NOT ACCEPTABLE.**

4. Do not wear jeans, as this does not reflect a professional appearance.

5. Beards and moustaches are to be kept clean, neat and trimmed.

6. Long hair is to be tied back to keep it away from the facial area.

7. Students that have hair that is not considered a professional color may be asked by the clinical affiliate to dye their hair to a more appropriate color.

8. For safety purposes, do not wear dangling earrings, loose bracelets, and sharp or oversized rings. The wearing of nominal jewelry that is small is acceptable. For safety purposes any loose head dresses or clothing must be tied back or contained inside a lab coat. Facial body-piercing is not allowed and must be removed. Wearing body-piercing jewelry is not recommended in a hospital laboratory setting.

9. All visible tattoos MUST be covered.

J. Counseling

1. Depending on the issue, counseling is available from the CLS faculty, the University Counseling Center, or Office of Student Life.

2. If concerns develop at the clinical site, call the UTEP CLS Clinical Coordinator before problems get out of hand.

K. Clinical Rotations

Students are not to enter the clinical laboratory facilities until ALL compliance and clearances have been completed by

1. The CLS Program
2. The UTEP Compliance Office
3. The Clinical Affiliate Education Department and /-or the Human Resources.

ALL THREE PROCESSES MUST BE COMPLETED FOR STUDENT CLINICAL CLEARANCE TO BE GIVEN. If a student has not completed all the compliance requirements by the specified deadline(s), then the student will not begin preceptorships and may be dropped from Preceptorship courses. Be aware that this may result in the student not completing graduation requirements and the student must reapply the following year. There is no guarantee of a preceptorship clinical rotation and depends on availability.

ONCE STUDENTS HAVE BEEN CLEARED AT ALL LEVELS as stated above, the student will be notified by the UTEP CLS Clinical Coordinator (Ms. Camacho) that they may now contact an individual in the clinical lab department they have been assigned to as stated in their rotation schedule. Students must not assume that if they receive an e-mail from Ms. Lantican indicating they have been cleared that this means they are cleared at all levels. STUDENTS MUST WAIT FOR COMMUNICATION FROM MS. CAMACHO INDICATING THEY ARE CLEARED.

Students may not enter a clinical laboratory facility at any time if they are not currently assigned to that location, with no exceptions.

No student is allowed to leave their preceptor rotation at any time without the authorization of program officials to visit a different clinical site, department or fellow student. Failure to follow instructions may result in disciplinary action or dismissal from the program.

Students should only wear the UTEP ID / Student badge during rotation hours. Students must remove the badge at the completion of the day's rotation.

Students misrepresenting themselves as students outside of clinical rotation times may result in disciplinary action or dismissal from the program.

L. Clinical Rotation Schedule (See Preceptorship syllabus for details)

1. A complete syllabus for preceptorships is posted on Blackboard before classes begin. The syllabus will include practicum calendar, rotation schedule, and schedule of exams for Preceptorships I, II, III, and IV. Students receive their rotation schedule during orientation approximately 3 months in advance.

2. Students, in no way, replace paid staff members in these clinical laboratory rotations.

3. Students are expected to have a rotation time of five (5) hours per day from Monday through Thursday with a 15-minute break. Starting time for rotation will vary depending on facility and department. Students are expected to complete a total of 5 hours per day.

M. Integrity

1. Absolute honesty and integrity are a critical aspect of your chosen profession. Confidentiality of patient information is another. These must be strictly observed.

2. Any student who falsifies patient records and/or results, cheats on quality control results, interferes with laboratory functions, deliberately cheats on any CLS program exam or exhibits any of the behaviors listed in the Probation/Dismissal policy will be considered to be in violation of both the UTEP and CLS program policies and may be subject to immediate dismissal from the clinical practicum and the CLS program itself.

3. If such a dismissal is warranted from the CLS Program, a detailed signed statement will be permanently placed in the student's files.

N. Student Employment and Hospital Service Work **performed by Students**

Students on clinical rotations are not expected to provide "service work" for the clinical sites during their clinical rotation placements. Students may not be substituted for clinical staff. After demonstrating competency, students may be permitted to perform procedures under qualified supervision; however, it is the responsibility of the supervising employee for final verification of the data and release to the laboratory information system.

Any service work by students in the clinical setting outside of the academic hours is non-compulsory. If a student chooses to be hired by a clinical site for a job that does not require a certified medical laboratory scientist (MLS), the work hours must be scheduled at a time other than class hours. In such cases, the student is considered an employee of the clinical site and the work is NOT considered to satisfy any part of the student's clinical rotation experience.

1. No hospital service is required of any student in the UTEP Clinical Laboratory Science Program. Students may not be substituted for clinical staff.

2. Qualified students may be offered employment; **HOWEVER**, students are cautioned to remain cognizant of their responsibility to the CLS program and their academic responsibilities.

3. Qualified student(s) can be employed by clinical facilities provided such openings are available and employment does not interfere with the students educational goals.

O. Work Outside School

The curriculum of the Clinical Laboratory Sciences Program is quite rigorous and demands an appreciable amount of study time. For this reason, those admitted to the program are discouraged from seeking employment while enrolled. We understand, however, because of family or other commitments, that some students must work. For those students who must work, the following policies are enforced:

- Hours of employment must be scheduled for times outside of classes, clinical rotations and

community engagement projects.

- The student's work schedule shall not interfere with any class or clinical assignments as scheduled in the students individual rotation schedule Clinical Laboratory Science Program.
- Missing class, lab or community engagement or leaving class / lab early for work purposes constitutes an unexcused absence (zero for one of the Friday exams of that week and a "write-up").

P. Affiliate Site Visits

1. UTEP CLS Clinical coordinator and or faculty will visit and / or phone the clinical affiliate to determine the student's progress.

2. Each student will have the opportunity to discuss progress and /or any problems that may arise at the student's clinical site.

3. At other times, the student is encouraged to seek counsel with the CLS Program Clinical Coordinator or the CLS Program Director whenever a problem arises.

Q. Evaluation of Clinical Affiliates

1. Each student will complete an evaluation of the department they were assigned to at the end of each clinical rotation.
2. The evaluation will be held in strict confidence by the program faculty and will be shared with the clinical affiliate only after completion of the entire clinical practicum.

3. Comments will in no way affect the student's grade or recommendation for future employment

VI. Additional Student Responsibility

A. Pregnancy

1. CLS students assume the responsibility of somewhat hazardous working conditions during said time.
2. Student must have a physician's statement of physical ability to continue activity in classes, labs, and clinical activity rotations.

B. Changes of name, address, or telephone numbers must be reported to the UTEP CLS Program Director and Clinical Coordinator as soon as possible.

C. Professional Membership

1. Each student is urged to become a student member of the American Society for Clinical Laboratory Science (ASCLS).
2. Those students that choose to belong to ASCLS receive favorable rates for CLS publications, group insurance, and sponsored seminars.

VII. Insurance Responsibility

A. Health insurance and liability insurance is mandatory. **Students are not covered by workmen's compensation. If injuries occur during the clinical practicum the student is responsible for any costs incurred.**

B. Students enrolled in the clinical practicum will be provided liability insurance through the University of Texas System.

C. Students are required to show proof of HEALTH INSURANCE. Proof of health insurance coverage must be for the entire 2nd year during the clinical rotations.

VIII. Clinical Practicum Curriculum (See Preceptorship syllabus for details)

A. Goals and Objectives

1. During the course of the 2nd year of the CLS clinical practicum, students will enroll in the four Preceptorship courses.

2. During this clinical practicum, students will be required to be at their specific facility Monday through Thursday as per the schedule indicated in the syllabus. **Students are required to be on site 20 hours per week** (breaks are not counted toward the total time requirement).

3. Students are required to be in class at UTEP, College of Health Sciences for additional classes. These classes may take place in the afternoon and on Fridays. These classes are held virtually for those students who are out of town. Students must refer to the current schedule for specific days and times.

B. Practicum Performance

1. Electronic Examinations

a. Electronic examinations will be formal examinations based on the study material from the BOC and other appropriate study books.

b. These examinations will be given via Blackboard and require Respondus lockdown and a webcam. The **exams will be timed**. Exams will be taken on Friday (see individual schedule for dates). If the student does not have a laptop, then the student may go to the UTEP library to check out a computer. Please note that cameras will be used to proctor the exams. Make sure that your equipment is functional or the exam will be invalidated. Your entire face must be visible, and surrounding area must be cleared of ALL items. Water bottle excluded. Make sure your camera is working and show your full face.

c. All electronic equipment will be placed upfront in the classroom, including, but not limited to, phones, smart watches, ear buds, earphones, calculators, tablets and other electronics.

d. Dates of exams are given in the preceptorship schedule

e. Examinations: How will I be graded? See preceptorship syllabus for details.

2. Performance Evaluations

a. Each clinical facility will have a certified technologist who will be your "mentor" during your specific department rotations.

b. At the end of students' rotation, his/ her mentor will evaluate the student's overall quality

of performance, professional conduct, and clinical competence.

c. Students will be evaluated on their overall ability to function in a laboratory as a productive hematologist, bio-chemist, microbiologist, immunohematologist, etc.

d. A list of specific tasks and competencies must be completed at each site before the clinical facility instructor (clinical preceptor) will sign, acknowledging completion.

C. COMPREHENSIVE EXAMS:

At the end of each semester, the student will complete a comprehensive exam. The exam consists of 100 questions and the percentage of questions per subject content area is prescribed by the ASCP BOC exam. See below for content areas.

EXAMINATION CONTENT AREAS

The MLS exam questions encompass different content areas within Medical Laboratory Science: Blood Banking, Urinalysis and Other Body Fluids, Chemistry, Hematology, Immunology, Microbiology, and Laboratory Operations. Each of these content areas comprise a specific percentage of the overall 100-question exam. The content areas and percentages are described below:

CONTENT AREA	DESCRIPTION	EXAM PERCENTAGE
BLOOD BANKING	Blood products, blood group systems, blood group immunology, physiology and pathophysiology, serologic and molecular testing, transfusion practice	17 – 22%
URINALYSIS AND OTHER BODY FLUIDS	Physical and chemical testing, microscopic analysis, physiology, disease states	5 – 10%
CHEMISTRY	Carbohydrates, lipids, heme derivatives, enzymes, proteins and other nitrogen-containing compounds, acid-base determinations (including blood gases), electrolytes, endocrinology, vitamins and nutrition, therapeutic drug monitoring, toxicology	17 – 22%
HEMATOLOGY	Physiology, disease states, laboratory testing, hemostasis (including physiology, disease states, and laboratory determinations)	17 – 22%
IMMUNOLOGY	Principles of immunology, diseases of the immune system, transplantation, infectious disease serology, serologic procedures, test results	5 – 10%
MICROBIOLOGY	Preanalytic procedures; analytic procedures for bacteriology; analytic procedures for mycobacteriology, virology, parasitology, and mycology; postanalytic procedures	17 – 22%
LABORATORY OPERATIONS	Quality assessment/troubleshooting, safety, laboratory mathematics, manual/automated methodology and instrumentation, basic management principles, education principles	5 – 10%

Fall Semester Comprehensive Exam

If a student is not successful in earning a minimum of **55%** on the fall comprehensive exam, the student will be issued the grade of "I" in the Preceptorship I and II courses and will be required to remediate and re-take the comprehensive exam before the start of the Spring semester. The student will only be allowed to take the comprehensive exam for a maximum of three (3) times. If the student is not successful after taking the fall comprehensive exam three (3) times, then the student will be dismissed from the program and receive a grade of D. **Please note that if a student is withdrawn from the preceptorships the student will not be able to graduate with a BS in CLS but may be able to earn a degree in Multidisciplinary Studies. The student may choose to continue with**

other CLS lecture classes. The date of the exam re-takes will be arranged with the UTEP CLS Clinical Coordinator.

Spring Semester Comprehensive Exam:
If a student is not successful in earning a minimum of **75%** on the Spring semester comprehensive final exam, the student will be issued the grade of "I" in the Preceptorship III and IV courses and will be required to remediate and re-take the comprehensive exam. If the student has not achieved the minimum of 75%, the student will be allowed to take the comprehensive exam for a maximum of three (3) times. If the student is not successful after taking the spring comprehensive exam three (3) times, then the student will be dismissed from the program and receive a grade of D. **Please note that if a student is withdrawn from the preceptorships the student will not be able to graduate with a BS in CLS but may be eligible to earn a degree in Multidisciplinary Studies.** The date of the exam re-takes will be arranged with the UTEP CLS Clinical Coordinator.

D. End of Rotation Examinations:
The end of rotation exams will be timed and on-line in your Blackboard course. Exams will be Given on Fridays from 8:00 – 9:50 a.m. **Students are required to bring their laptop or tablet computer and must be equipped with a camera.** If the student does not have a laptop then the student may go to the UTEP library to check a computer out. If students are attending out of town rotations, exam date and times will be determined with the UTEP CLS Clinical Coordinator. Please note that cameras will be used to proctor the exams. Make sure that your equipment is functional, or the exam will be invalidated.

The exams will consist of randomly computer-generated multiple-choice questions and pictures from a test bank of over 5000 questions and will appear one-at-a-time. If the question is skipped or unanswered, the student will be able to revisit the question. The exams are timed and the student will have only the allotted time to finish the exams, therefore the student must be prepared ahead of time. The students must check their rotation schedule for specific exam dates.

No study materials, telephones, or other electronic devices other than the computer to take the exam may be taken into the exam room. Students will not be allowed to leave the testing room once the exam has started.

A grade of "C" (75%) is the minimum grade acceptable for the Preceptorship.
All end of rotation exams must be passed with a minimum of 75%. If an unsatisfactory grade is achieved on the first attempt, the student will have only one opportunity to retake the exam to achieve a minimum of 75%. The final grade for that exam will be replaced with the passing grade (greater than or equal to 75%).

The student is given this opportunity ONLY ONCE per semester during the preceptorship year. You cannot "carry over" your opportunity from the previous semester.

If the student fails a second rotation exam during the same semester, the student will be withdrawn from the preceptorship classes. Please note that if a student is withdrawn from the preceptorships the student will not be able to graduate with a BS in CLS but can earn a degree in Multidisciplinary Studies. The student may choose to continue with other CLS lecture classes.

ABSENCE FROM ROTATIONS:

Students are expected to be on time (this means showing up 10 minutes before start time) or early to all rotations. In the case of an emergency or illness necessitating an absence, the student **MUST** inform the Clinical Faculty, i.e. the clinical individual you are working with, no **later than 7:00 A.M**. of an expected absence. The students must also inform the UTEP CLS Clinical Coordinator of any absences. The emergency cell phone number of the UTEP Clinical Coordinator should be used and if no answer, the student MUST leave a message. All absences **WILL** be made up by the student on the student's own time at the convenience of the affiliate. **Students may not ask for time off from rotations to study**. Please note that this may entail the student using his or her spring break or holidays. **Students must fill out the attendance log on a daily basis and have it counter signed by a clinical faculty member.**

IX. Probation /Dismissal Policy: Students may be dismissed from the CLS Program for the following reasons

A. Unsatisfactory academic performance.
   1. A cumulative grade of 75 % must be maintained for all CLS courses and laboratories.
   2. A cumulative grade of 75% must be maintained in all clinical practicum rotations.
   3. Cheating, dishonesty or unethical conduct according to UTEP policies.

B. Unsatisfactory Clinical Laboratory Performance.
   1. Unprofessional conduct, excess tardiness or absences either at the clinical facilities or CLS classes.
   2. Inability to perform designated clinical tasks, or consistent failure to obtain satisfactory results.
   3. Cheating or falsifying patient results.
   4. Falsifying QC /results.
   5. Unsatisfactory or unethical conduct as defined in the UTEP Student Manual.

C. Recommendations for dismissal from clinical affiliates.
   1. Recommendations to dismiss the student from clinical practicum will be brought to the CLS Program Director and the CLS Program Faculty.
   2. A decision to remove the student from the clinical practicum may be appealed through the UTEP Student Due Process procedure. (see below)

D. Illegal Drugs and Narcotics
   In compliance with the Drug Free Schools and Communities Act of 1990, The Board of Regents of The University of Texas System provides the following: any student who is guilty of the illegal use, possession and/or sale of a drug or narcotic, including any amount of marijuana, on the campus is subject to discipline. If a student is found guilty of the illegal use, possession, and/or sale of a drug or narcotic on campus, the minimum penalty shall be suspension for a specified period of time and/or suspension of rights and privileges for a specified period of time.

X. Student Due Process

Students who believe they have been unfairly evaluated must:

Step 1: Attempt to resolve the difficulty with the faculty member.

Step 2: If the dispute cannot be resolved in Step 1, the student may within 5 school days appeal to the program director stating the evidence for the continued dispute in writing.

Step 3: If still unresolved a written complainant, evidence, and reason for the dissatisfaction must be submitted to the Assistant Dean of the College of Health Sciences. The Assistant Dean will call upon the Due Process Committee to review and make recommendations to the Assistant Dean based on statements, written evidence, and interviews with all parties involved.

Step 4: If the matter is still not settled, the complainant will notify the Dean, within five (5) school days. The Dean will then pursue the matter with the Vice President for Student Affairs.

The process will continue until the matter is resolved.

X. CLS Course Descriptions

Course descriptions for all CLS courses can be located in the university catalog and at the end of this handbook.

XI. Clinical affiliates:

New affiliates are being acquired to accommodate the University's requirement for class of 20 or more. The student must be aware that they may be required to leave El Paso to complete their required clinical preceptorship at the student's own expense. Some rural affiliates provide student stipends.

Memorial Medical Center
2450 S. Telshor Blvd.
Las Cruces, NM. 88011-5076

The Hospitals of Providence Memorial Campus
2001 N. Oregon
El Paso, TX 79900

University Medical Center
4815Alameda Avenue
El Paso, TX 79905

Las Palmas Medical Center
801 N. Oregon
El Paso. TX 79902

El Paso Children's Hospital
4845 Alameda
El Paso, TX 79905

The Hospitals of Providence Transmountain Campus
2000 Woodrow Bean
El Paso TX 79911

Baptist Hospitals of Southeast Texas
3080 College Street
Beaumont, TX 77701

The Hospitals of Providence East Campus
3280 Joe Battle Blvd
El Paso, TX 79938

Del Sol Medical Center
10301 Gateway Blvd
El Paso, Texas

The Hospitals of Providence Sierra Campus
1625 Medical Center Dr.
El Paso, TX 79902

City of El Paso Department of Public Health Lab
9566 Railroad Dr.
El Paso, TX 79924

William Beaumont Army Medical Center
18511 Highlander Medics Street
Fort Bliss, TX 79918

North Texas Medical Center
1900 Hospital Boulevard
Gainesville, TX 76240

Centro De Salud Familiar La Fe, Inc
700 S. Ochoa
El Paso, TX 79901

Yoakum Community Hospital
1200Carl Ramert Dr.
Yokum, TX 77995

Kimble Hospital
349 Reid Rd
Junction, TX 76849

Coleman County Medical Center
310 S. Pecos St.
Coleman, TX 76834

Huntsville Memorial Hospital
110 Memorial Hospital Drive
Huntsville, TX 77340

MountainView Regional Medical Center
4311 E. Lohman Ave
Las Cruces, NM 88011

Southwest Health systems, Inc,
1311 N. Mildred Road
Cortez, CO 81321

Montrose Memorial Hospital, Inc
800 S. 3rd Street
Montrose, CO 81401

THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF HEALTH SCIENCES

CLINICAL LABORATORY SCIENCE PROGRAM

ADMISSION REQUIREMENTS

ESSENTIAL FUNCTIONS
(Adopted October 1999)

Essential Functions for this program include:

1. **Mobility:** a) The student **must** have adequate gross mobility in order to maneuver in a timely fashion, throughout the department.

   b) The student **must** be able to lift his or her arms above shoulder height in order to place or remove items of ten pound or less from shelves.

   c) The student **must** be able to bend over at the waist or squat down (waist and knees) in order to place and remove items of ten pounds or less from drawers and cabinets.

2. **Manual Dexterity:** The student **must** have adequate fine motor skills in order to be able to manipulate small objects in a safe and accurate manner. Examples would include (but are not limited to) being able to operate a computer keyboard; dial a telephone; handle cuvettes, sample cups, pipette tips, and reagent vials; pick up glass slides from table top, and use a pen or pencil to write the English language legibly.

3. **Auditory Acuity:** The student **must** be able to hear well enough to respond to significant sounds in a clinical lab. Examples would include (but are **not** limited to) being able to hear the telephone ring, hear the fire alarm or other warning system; be able to hear signals generated from instrumentation that may indicate normal operating status or malfunction, and be able to follow verbal instruction from a coworker or supervisor.

4. **Verbal Communication Skills:** The student **must** be able to speak in a manner that is understandable (this being both clear distinct words and adequate volume) to persons on the other end of a telephone or other health care workers listening specifically to the student in person.

5. **Visual Acuity to read, write, discern colors, and use a microscope:** The student **must** have adequate eyesight such that he/she can recognize and distinguish gradients of color (such as on a urine dipstick), read English words and numbers either on a video display screen, computer printout, or legible handwriting, and interpret lines and points on a graph.

Health Insurance Coverage

Upon acceptance into the Upper division of the CLS Program the student is required to Demonstrate evidence of health insurance coverage.

I acknowledge that I understand the essential function and I agree to comply with the CLS Program Requirements.

_____ _____ _____

Print Name Signature Date

Title IX Notification Regarding Discrimination https://www.utep.edu/titleix/

The University of Texas at El Paso is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in any federally funded educational programs or activities.

Title IX protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination including sexual misconduct, sexual harassment, and acts of sexual violence. Sexual violence may include rape, sexual assault, sexual battery, sexual coercion, stalking, and relationship violence. Title IX prohibits institutions from excluding, separating, denying benefits, or otherwise treating individuals differently on the basis of sex. Sex based discrimination is prohibited at UTEP both by law and by University and UT System policies.

For additional information or questions, please contact the Title IX Coordinator, who can be reached by phone at (915) 747-8358, by email at titleix@utep.edu, or by mail at 500 W. University Ave., El Paso, TX 79968, Kelly Hall, Room 312.

In addition to or in lieu of contacting the Title IX Coordinator, inquiries and complaints may also be sent to the Assistant Secretary of the Office for Civil Rights by mail at 1999 Bryan Street, Suite 1620, Dallas, TX 75201-6810, by phone at (214) 661-9600 or by email at OCR.Dallas@ed.gov.

Inquiries regarding Title IX should be referred to the University's designated Title IX Coordinator(s):

Gabriel Ramirez, J.D., Title IX Coordinator
Oversees Title IX investigations and policy
implementation Kelly Hall 312
915-747-8358
gramirez2@utep.edu

Dr. Charlie Gibbens, Deputy Title IX Coordinator
Student Affairs, Assistant Vice President for Student Support
Union East 301
915-747-5076
cegibbens@utep.edu

Imelda Soto, M.Ed. Deputy Title IX Coordinator /Primary
Investigator Institutional Compliance
Kelly Hall 223
915-747-8797
isoto25@utep.edu

Beatriz Tapia, Deputy Title IX Coordinator
Director for Equal Opportunity
Equal Opportunity
Kelly Hall 304
915-747-5839
betapia@utep.edu

Fire Alarm Evacuation Procedure.

Never ignore a fire alarm signal, even if you have reason to believe that it may be false.

A. Prepare Yourself

The University's fire alarm systems are tested and maintained to afford building occupants the best possible warning in case of fire. Before an alarm sounds, take note of the following:

1. Always identify at least two evacuation routes and exits in case of an emergency. Exit Signs in the corridors clearly indicate the way. The route you normally take may not be accessible in an emergency so be prepared with an alternate.
2. Identify the locations of the fire alarm pull stations so that you may sound an alarm in case of fire or other emergency.
3. Observe how to operate the pull station. They are quite simple.
4. When the alarms are tested observe the sound. Learn to recognize it as an indication of an emergency requiring evacuation.
5. Do not prop open the stairwell doors. They must fully close in order to keep smoke and heat out and to maintain a safe passageway out of the building for building occupants. Report stairwell doors that do not self-close and latch so that they may be repaired. Your department will not be charged for repairs to promote safety.
6. Your supervisor should identify an area outside the building a safe distance away where your department will gather in an emergency. Everyone must be accounted for at that location. If you haven't been told where your departmental gathering point is – ask.
7. If there are sensitive items within your space, keep them locked away when not in use. You may not have time to store them in an emergency.

B. When an alarm sounds

In the event that the fire alarm sounds in your building its time to get out. You don't have to see or smell smoke to know this. The following steps should be taken as you prepare to leave your area:

1. Close any open windows. Close the door to your office or room when leaving. This will help slow a fire by reducing the oxygen that feeds a fire. Also, closing your door will reduce the probability of smoke ruining the contents of your room. Don't lock the door. Firefighters must gain entry to all rooms when fire occurs to verify that everyone has escaped.

2. If on an upper floor use the stairs to get out. **DO NOT USE THE ELEVATORS**! An elevator shaft can act like a chimney flue, filling with hot smoke, gases and flames in a fire's natural progression. The elevator control panel or the building electrical system may become disabled due to the emergency. This could trap you in the elevator and place you at risk of fire, heat, or smoke inhalation.

3. Exit the building and proceed to your departmental gathering point away from the building. Do not block driveways or parking lots. Emergency equipment may need access.

4. Report to your supervisor at the departmental gathering point. Do not wander off until you have been accounted for. Emergency crews may lose precious minutes if they must search the building for you so don't forget to report to your supervisor.

5. Do not re-enter the building until it has been declared safe by Campus Police or the city fire department. No other individual should make that call. And if you hear an alarm remember, just because you can't see or smell smoke doesn't mean that there isn't an emergency. There may still be a fire or some other emergency requiring exit from the building. Often fire alarm pull stations may be activated to evacuate the building for other emergencies, such as a chemical emergency, gas leak, medical emergency, or even to draw attention to a crime in progress.

Do not ignore a fire alarm signal, even if you have reason to believe it may be false.

A. If fire starts in your area

Remember to close the door to the fire area, activate the fire alarm, call 911 from a safe telephone, evacuate the building, do not use elevators and if caught in smoke, get down low. The clearest air is closer to the floor. If you become trapped, go to a window and wave something white to catch the attention of those below. If a telephone is available, call 911 and be prepared to give a detailed description of your area. Remember, the rescuers are not as familiar with campus buildings as you are.

B. People with disabilities

We all have an obligation to look out for each other. Each department should develop procedures for evacuating those students, staff or faculty who have disabilities. Persons with hearing impairment should be alerted when an alarm sounds and those with visual impairments will need our help in exiting a building. Notify emergency personnel when a person with disabilities remains behind in a stairwell area of refuge. If you have a disability that could impair your options in an emergency, you should make every effort to plan your exit ahead of time. Make a point to become familiar with the building. Stairwells should be checked out, taking note of landings and whether they may be used as an area of refuge. Locations of exits, telephones, signs and fire alarm pull stations should be noted. Remind your co-workers and others you frequently visit that you may need their assistance in case of an emergency.

When an emergency does occur, request help. Don't wait for someone to offer it.

University of Texas El Paso
College of Health Science
Clinical Laboratory Science Program

Dismissal Based on Affective Evaluation

Affective performance emphasizes the ability to constructively interact with co-workers and supervisors and the ability to make decisions utilizing available data. Affective evaluations include but are not limited to the areas of communication, initiative, self-reliance, judgment, dependability, adherence to policy, and organizational ability. Technical knowledge and proficiency are important qualifications for any job but equally important are affective attributes when considering how well an individual will function in the clinical lab environment. Therefore, a policy for dismissal from the program based on affective problems has been established.

If a student receives <70% on an affective evaluation, a conference will be held between the clinical instructor, the clinical coordinator and the student to discuss the problem. The student will also meet with the CLS Program Director to discuss the situation. When a student receives <70% on three affective evaluations, this may be cause for dismissal and the problem will be discussed between the clinical instructors, University program officials (Program Director & Clinical Coordinator) and the student. A final hearing will be conducted in the presence of the CLS Faculty and a decision reached by judicial process.

The student may appeal the decision by following the standard University of Texas El Paso appeals procedure.

Advice to Students and Employees in Clinical and Teaching Microbiology Laboratories

- **Be aware that bacteria used in microbiology laboratories can make you or others who live in your household sick, especially young children, even if they have never visited the laboratory**.
    - If you work in a laboratory, it is possible for you to bring bacteria home through contaminated lab coats, pens, notebooks, and other items that you use in the microbiology laboratory.
    - Avoid taking laboratory supplies outside of the laboratory to limit contamination.
- Persons working with any infectious agents, including *Salmonella* bacteria, must be aware of potential hazards, and must be trained and proficient in biosafety practices and techniques required for handling such agents safely, in particular, to:
    - Wash hands frequently while working in and immediately before leaving the microbiology laboratory and follow proper hand washing practices. This is especially important to do before preparing food or baby bottles, before eating and before contact with young children.
    - Leave food, drinks or personal items like car keys, cell phones and mp3 players outside of the laboratory. These items may become contaminated if you bring them into the laboratory or touch them while working in the laboratory.
- Wear a lab coat or other protective garment over personal clothing when working in a microbiology laboratory. Remove protective garment before leaving for non-laboratory areas (e.g., cafeteria, library, or administrative offices). Dispose of protective garment appropriately or deposit it for laundering. Lab coats should be removed from the laboratory only when they are to be laundered by the institution.
- If you work with *Salmonella* bacteria in a microbiology laboratory, be aware that these bacteria can make you sick. Watch for symptoms of *Salmonella* infection, such as diarrhea, fever, and abdominal cramps. Call your health care provider if you or a family member has any of these symptoms.

UTEP Student Health and Wellness Center

https://www.utep.edu/chs/shc/
Union Building East
351 W. University Ave. Ste 100
El Paso, Texas 79968

E: studenthealth@utep.edu P: (915) 747 - 5624 F: (915) 747 - 5015

Office Hours (closed every day from 12 – 1:00 pm

SHWC operating hours are 7:30 a.m. - 12:30 p.m. and 1 p.m. to 4:00 p.m. Monday through Friday except on University scheduled holidays. Schedule may be adjusted for administrative reasons. Please note that after-hours care is not available. If you have a medical emergency, please dial 911 for assistance.

Appointments
Call the Student Health and Wellness Center (SHWC) at (915) 747-5624 to make an appointment.

Commitment to appointment Policy
The SHWC aims to provide efficient and effective care for all enrolled UTEP students. To meet this goal, the SHWC reserves time for each student who requests an appointment. An appointment is a bond of trust indicating the SHWC will be here to serve students and that students will be present at their scheduled time. Students who are unable to keep their appointments should notify the SHWC by calling at least 24 hours in advance; otherwise, the student will be charged a $25 NO SHOW FEE. This fee will appear on their Goldmine account. Students are asked to sign the Commitment to Appointment Policy form before their appointment. The form is available at this link: chs/shc/_Files/docs/shwc no show

Services
The Student Health and Wellness Center (SHWC) is not an emergency care facility. Students who are having a medical emergency should call 911.
The SHWC provides healthcare services that address the physical and mental wellbeing of students to help them be proactive about their health and develop healthy habits that will last a lifetime.
The SHWC offers immunizations, routine lab tests, flu vaccines, general checkups, physical exams, prescription refills for existing patients, STD testing (male and female), pregnancy tests, contraceptive care, nutrition and wellness education, mental health counseling, and much more.
Students who are participating in clinical placements can fulfill all medical requirements for compliance purposes at the SHWC, including physicals. All healthcare services are strictly confidential.

Payments and Insurance
All enrolled students, regardless of their health insurance status, are eligible to receive services at the Student Health and Wellness Center (SHWC). Each semester, every student pays a fee as part of the University's tuition and fees structure to access the SHWC's services. In addition to this general fee, there is a **$35.00 office visit fee**. If a student has insurance, this $35 fee may be covered. Students should inquire about insurance coverage for this office visit fee at the time their appointment is made.
Services are provided on a fee-for-service basis. Students with insurance can choose to have these services billed to their insurance. Students without insurance will be responsible for payment of their

healthcare services. All enrolled students are eligible to receive services at the SHWC and will not ever be denied access to an appointment. If a student does not have the funds to pay for services at the time of a visit, fees can be deferred to the student's Goldmine account.

In the event that diagnostic services outside of the scope of the SHWC are needed, lab test(s) will be referred to an outside lab, and the student will be billed independently by the lab for the respective diagnostic procedure(s).

Students who wish to consider purchasing health insurance should visit the below link for more information. https://www.utep.edu/human-resources/services/benefits/student-health-insurance-plan.html.

CLS Clinical Compliance **https://www.utep.edu/chs/compliance/students/chs-undergraduate/clinical-lab-science-cls-compliance-requirements.html**

Floriza Lantican; UTEP-CHS Clinical Compliance Coordinator Phone: 915-747-7225 / **frlantican@utep.edu**

ALL COMPLIANCE REQUIREMENTS DOCUMENTATION MUST BE UPLOADED THROUGH THE MEDICAT PATIENTS' PORTAL USING YOUR MINER UTEP ACCOUNT AND PASSWORD. THE LINK TO THE PORTAL IS, https://utep.medicatconnect.com

Medical requirements may be completed at the UTEP Student Health and Wellness Center (SHWC) at a reasonable price. If you come to the SHWC to complete any immunizations or titers, you will be given the documentation so the you can upload via the portal. The following are the requirements:

- Criminal Background Check
- Drug Screen

  - Criminal Background Check and Drug Screen must be done through this link, https://scholar.verifiedcredentials.com/utep.
- CPR Card (Basic Life Support-Healthcare Provider by the American Heart Association)
- Community Wide Orientation - must be done through this link, https://www.epcc.edu/Admissions/Orientation/community-wide-orientation
- Health/Medical Insurance – insurance verification letter/insurance card must be provided/uploaded into the portal at least 2 months prior to start of internship

MEDICAL REQUIREMENTS

- Two Step TB Skin Test – 2 TB skin tests 7-21 days apart (no earlier than 7 days, and no later than 21 days, or will repeat the process) * If you have had a positive TB test in the past, you will need to submit documentation of the positive test results and chest x-ray results, and must complete the TB Assessment yearly.

- Tdap (Required every 10 years)
- Varicella **TITER ONLY** (bloodwork and not immunization) (Chickenpox, Immunity IgG)

  * If Varicella titer is not positive, will require 2 doses of Booster a month apart.
- MMR (Measles(Rubeola), Mumps, and Rubella) **TITERS ONLY** (bloodwork) (Immunity IgG)

  * If one of the MMR titers is not positive, will require 2 doses of Booster a month apart.
- Hepatitis B - Documentation of 3 doses and a **HBsAb (Hepatitis B Surface Antibody) TITER** (bloodwork)

  * If Hepatitis B titer is not positive, will require a 2nd series of 3 vaccines followed by a 2nd HBsAb TITER.
- Influenza Vaccine (Required every Fall semester until March 31st of the following year)

  * Date when it was received, Manufacturer, Trade Name, Lot #, Expiration Date, and Injection site must be included in the documentation

  (Waivers <u>WILL NOT</u> be permitted unless documentation from a Physician provided indicates allergic reaction to vaccine.)
- Covid Vaccines/Boosters – must upload a document that indicates ALL dates of administration

NOTE: Additional requirements may be required depending on specific circumstances or at the request of the clinical agencies.

INCIDENT REPORT

Student Name:_____UTEP ID# _____

Home Address_____Phone:_____

Time Accident Occurred:_____a.m./_____p.m. Date:_____

Place of Accident:_____ Number of People Involved: _____

PART OF BODY INJURED

Abdomen	_____	Foot	_____
Ankle	_____	Hand	_____
Arm	_____	Head	_____
Chest	_____	Knee	_____
Ear	_____	Leg	_____
Elbow	_____	Mouth	_____
Eye	_____	Nose	_____
Face	_____	Tooth	_____
Finger	_____	Wrist	_____

Other (specify)_____

_____

NATURE OF INJURY

Abrasion	_____	Laceration	_____
Bite	_____	Needle Stick	_____
Bruise	_____	Poisoning	_____
Concussion	_____	Puncture	_____
Cut	_____	Scratches	_____
Dislocation	_____	Shock (el.)	_____
Fracture	_____	Sprain	_____

Other (specify)_____

_____

DESCRIPTION OF THE ACCIDENT

How did the accident happen?

What was student doing?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Student's signature

DEGREE OF INJURY

Non-disability	_____
Temporary Disability	_____
Permanent Impairment	_____
Death	_____

Faculty/Preceptor in charge when accident occurred [Enter NAME(S)]_____

Present at scene of accident: YES_____ NO_____

IMMEDIATE ACTION TAKEN

		NAME
First-Aid Treatment	_____	By: _____
Campus Police Notified (747-5611)	_____	By: _____
EMS notified (911)	_____	By: _____
Sent to STUDENT HEALTH CTR.	_____	By: _____
Sent Home	_____	By: _____
Sent to Physician	_____	By: _____

PHYSICIAN'S NAME:_____ PHONE: _____

Sent to Hospital _____ By: _____

HOSPITAL NAME:_____PHONE: _____

Was a Parent or other individual notified? YES___ NO____When_____ How_____

Name of Individual(s) Notified:_____

By whom? (Enter NAME) _____

WITNESSES:
1.- NAME:_____ADDRESS/PHONE:_____

2.- NAME:_____ADDRESS/PHONE:_____

REMARKS

What recommendations do you have for preventing accidents of this type? _____

_____

_____ _____ _____

Signature: Student Signature: Faculty Signature: Program Director

The University of Texas at El Paso
College of Health Sciences
Clinical Laboratory Science Program

Suggested course sequence
PRE-PROFESSIONAL COURSES

Freshman

Fall Semester			**Spring Semester**		
UNIV	1301	3	HIST	1301 History of US	3
RWS	1301 or ENGL/ COMM 1611 or ESOL 1311	3	RWS	1302 or ENGL 1313 or ESOL 1312	3
CHEM	1305 General Chemistry	3	BIOL	1305 General Biology	3
CHEM	1105 Lab for Gen Chemistry	1	BIOL	1107 Topics in the study of Life II	1
MATH	1411 Calculus	4	CHEM	1306 General Chemistry II	3
	Total	**14**	CHEM	1106 Lab for Gen Chemistry	1
				Total	**14**

Summer I			**Summer II**		
COMM	1301 or 1302 or ENGL/COMM1611	3	Humanities Core **PHIL ethics 2306 (Required)**		3
HIST	1302 History of US Since 1865	3	Visual & Performing Arts Core (Select one)		3
	Total	**6**		**Total**	**6**

Sophomore

Fall Semester			**Spring Semester**		
POLS	2310 Intro to Politics	3	POLS	2311 American Gov & Politics	3
BIOL	2313 Human Anatomy/Phys II	3	MICR	2340 General Microbiology	3
BIOL	2113 Human A & P II Lab	1	MICR	2141 General Microbiology lab	1
CHEM	2324 Organic Chemistry	3	CLSC	2212 Clinical Laboratory Statistics	2
CHEM	2124 Organic Chemistry Lab	1	CLSC	3310 Prin of Medical Lab Genetics	3
CLSC	2210 Intro to CLS	2	CLSC	3357 Opportunistic & Parasitic Infections	3
Social & Behav Science **PSYC 1301(sug)**		3		**Total**	**15**
	Total	**16**			

PROFESSIONAL COURSES

Junior

Summer I		
CLSC	3351 Concepts in Immunodiagnostics	3
	Total	**3**

Fall Semester			**Spring Semester**		
CLSC	3354 Clinical Chemistry I	3	CLSC	3365 Clinical Chemistry II	3
CLSC	3155 Clinical Chemistry I Lab	1	CLSC	3364 Hematology II	3
CLSC	3356 Hematology I	3	CLSC	3366 Infectious Diseases	3
CLSC	3257 Hematology I Lab	2	CLSC	3167 Inf Dis Lab: Pre-Ana op	1
CLSC	3355 Body Fluids	3	CLSC	3168 Inf Dis Lab: Post-Ana op	1
CLSC	3153 Body Fluids Lab	1	CLSC	3368 Immunohematology	3
CLSC	3260 Serology	2	CLSC	3269 Immunohematology Lab	2
CLSC	3161 Serology Lab	1		**Total**	**16**
	Total	**16**			

Senior

Fall Semester			**Spring Semester**		
			CLSC	4275 Clinical Manag & Supervision	2
CLSC	4471 Preceptorship I	4	CLSC	4476 Preceptorship III	4
CLSC	4472 Preceptorship II	4	CLSC	4478 Preceptorship IV	4
CLSC	4273 Clinical Education	2	CLSC	4180 CLSC Seminar	1
CLSC	4274 Clinical Investigation	2	CLSC	4100 Ethics	1
CLSC	4311 Molecular Diagnostics	3		**Total**	**12**
	Total	**15**			

Total of 133 hours

CLS Course Descriptions

CLSC 2210 - Intro to the Clinical Lab
Introduction to the clinical laboratory (2-0) Information on the careers available in the clinical laboratory as well as an overview of each department in clinical pathology will be presented. Tours of hospital, reference labs, and specialized clinical laboratories will be arranged. This-course includes the principles and practices of quality control and pre-analytical, analytical, and post analytical components of urine and body fluid analysis. 2 Credit Hours 3 Total Contact Hours 0 Lab Hours 2 Lecture Hours 1 Other Hour Prerequisites: (BIOL 1305 and BIOL 11O7) and (CHEM 13O6 and CHEM 1106).

CLSC 2212 - Clinical Lab Statistics
This course encompasses clinical diagnostic computations required in the clinical laboratory setting including clinical chemistry, urinalysis, hematology, immunohematology, microbiology, and molecular techniques. The course also includes fundamental concepts and techniques which underlie applications to the various clinical laboratory disciplines, including statistical concepts, calculations, quality control, instrument and method assessment/ verification, and laboratory emphasis on sampling and applications to include pre-analytical, analytical, and post analytical phases of testing. Prerequisite: MATH 1411, CHEM 1306, and CHEM 1106 each with a grade of C or higher. Department: Clinical Laboratory Science 2 Credit Hours 3 Total Contact Hours 0 Lab Hours 3 Lecture Hours 0 Other Hours Prerequisite(s): (MATH 1411 w/C or better) AND (CHEM 1106 w/C or better AND CHEM 1306 w/C or better)

CLSC 3150 - Medical Terminology
Medical Terminology (1-0) The course is designed for students to gain a working knowledge of medical terminology, symbols, abbreviations, roots, prefixes, and suffixes, The course may be taken by any interested students in associated majors or programs or health related fields.

CLSC 3153 - Body Fluids Lab
Body Fluids Lab (0-3) This laboratory provides the basic laboratory skills necessary for performing urine body fluids analyses. Several fundamental laboratory methods are performed by the students using common body fluids principles. These laboratory assays provide the basis for most body fluids assays which will be demonstrated in the clinical hospital laboratory rotations. This course includes the principles and practices of quality control and pre-analytical, and post analytical components of microscopy and urinalysis and the application of safety to laboratory practice. Corequisite: CLSC 3252.

CLSC 3155 - Clinical Chemistry I Lab
Clinical Chemistry I Lab (0-3); this laboratory provides the basic skills necessary for performing clinical chemistry laboratory analyses. Several fundamental laboratory methods are performed by the students using common clinical chemistry principles. These laboratory assays provide the basis for most clinical chemistry analyses which will be demonstrated in the clinical hospital laboratory rotations. Corequisite: CLSC 3354. Prerequisites: CHEM 1305, CHEM 1105, CHEM 1306, CHEM 1106 and CHEM 2324 each with a grade of "C" or better and department approval. Restricted to major: CLIN.

CLSC 3161 - Serology Lab
Serology Lab (0-3) Serological techniques commonly used in the clinical laboratory will be encompassed with emphasis on direct application to the clinical laboratory. Serological testing and interpretation for disease such as: syphilis, mononucleosis, streptococcal infections and others. Corequisite: CLSC 3260 Prerequisite: CLSC 3351 with a grade of "C" or better.

CLSC 3167. Infectious Dis Lab: Pre-Anal Op.
Infectious Disease Lab: Pre-Analytical Operation This lab presents the essential and applied pre-analytical operations required in the field of clinical bacteriology. This course presents an overview of laboratory procedures used in pre-analytical bacteriology such as, but not limited to, specimen collection and processing, media selection, specimen inoculation and direct microscopic smears including evaluation and interpretation. Students will learn and understand the importance of communication with health professionals to ensure quality patient specimens for submission and recognize potential errors and resolve according to predetermined criteria. This course is presented as a co-requisite course with CLSC 3168 and CLSC 3366.

CLSC 3168. Infectious Dis Lab:Anal/Post-Ana Op.
Infectious Dis Lab: Analytical/Post-Analytical Operations This lab presents the essential and applied analytical and post-analytical operations required in the field of clinical bacteriology. This laboratory emphasizes practical case- study driven analysis of clinical bacteriology specimens presented in CLSC 3167. Students will learn how to accurately perform appropriate and timely testing in a cost-effective manner (analytical) and provide accurate and timely results to health professionals (post-analytical). This course is presented as a co-requisite course with CLSC 3167 and CLSC 3366**.**

CLSC 3257 - Hematology I Lab
Hematology I Lab (0-6) This course is designed to develop the skills and techniques necessary to recognize and identify normal and abnormal components of the hematopoietic system, Restricted to major: CLIN. Corequisite: CLSC 3356. Prerequisite: Admission to the Upper-division.

CLSC 3260 - Serology
Serology (2-0) This course emphasizes the detection of disease by the use of serological techniques. Restricted to major: CLIN. Prerequisite: CLSC 3351 with a grade of "C" or better.

CLSC 3269 - Immunohematology Lab
Immunohematology Lab (0-6) This laboratory course is designed to develop and refine skills in performing antigen and antibody identification techniques, compatibility testing and blood component preparation. Laboratory procedures for processing and selecting blood products, identification of blood group antigens and antibodies, blood storage procedures, quality control and pre-analytical, analytical/ and post analytical components of immunohematology and the application of safety to laboratory practice. Restricted to major: CLIN. Corequisite: CLSC 3368.

CLSC 3310 - Principles Med Lab Genetics.
This course is a foundational course that explores the essential genetic principles as applied to medial laboratory science content domains such as clinical chemistry, infectious diseases, blood banking (immunohematology), hematology, and molecular diagnostics. Pre-analytical, analytical, and post analytical aspects of medical laboratory analysis will be discussed. Laboratory techniques will be discussed in CLSC 4310. Prerequisite(s): (BIOL 1107 w/C or better AND BIOL 1305 w/C or better) AND (CHEM 1106 w/C or better AND CHEM 1306 w/C or better) AND (CLSC 2210 w/C or better)

CLSC 3351 - Concepts in Immunodiagnostics
Concepts in Immunodiagnostics (3-0) This course covers basic clinical immunology and applications in laboratory medicine. Interactions among immune cells and their secretions are examined, The role of the immune system in tumor growth, transplantation and rejection, and autoimmune diseases is covered.

Various methods utilized in the clinical laboratory are demonstrated and discussed. This course includes the principles and practices of quality control and pre-analytical, analytical, and post analytical components of clinical immunology. Restricted to major: CLIN. Prerequisite: MICR 2440 with a grade of "C" or better.

CLSC 3354 - Clinical Chemistry I
Clinical Chemistry I (3-O) This course includes the principles and practices of quality control and pre-analytical, analytical, and post analytical components of clinical chemistry. Basic€ concepts of laboratory mathematics, colorimetry, spectrophotometry, fluorometry, electrophoreses, chromatography are discussed. Chemical laboratory fundamentals and procedures are presented and related to normal and abnormal human physiology and biochemistry. Restricted to major: CLIN. Corequisite: CLSC 3155. Prerequisites: CHEM 1305, CHEM 1105, CHEM 1306, CHEM 1106, and CHEM 2324 each with a grade of "c" or better and department approval.

CLSC 3355 – Body Fluids
This course introduces the formation, function, and diagnostic significance of urine and other body fluids in clinical practice. Students will study urine, cerebrospinal, serous, synovial, seminal, and amniotic fluids, with emphasis on physical, chemical, and microscopic analysis. Laboratory focus on specimen collection, handling, and evaluation, preparing students to identify normal and abnormal components and correlate results with disease processes for accurate diagnosis and patient care. Quality control, pre-analytical, analytical, and post analytical components will be covered. Major Restrictions: Restricted to majors of CLIN Prerequisite(s): (CLSC 2210 w/C or better) AND (CLSC 3351 w/C or better)

CLSC 3356 - Hematology I
Hematology I (3-O) This course is a comprehensive study of the process of blood formation lt includes morphological and biochemical relationships of red blood cell formation in healthy vs. disease states, as well as the performance and application of current methods in hematologic analysis and technology. This course includes the principles and practices of quality control in pre-analytical, analytical, and post analytical components of hematology. Restricted to majors: CLIN. Corequisite: CLSC 3257. Prerequisite: BIOL 2313 with a grade of "C" or better.

CLSC 3357 - Opportunist & Parasitic Infect
This course covers the pathogenesis and the epidemiology of opportunistic microorganisms. The isolation, concentration, and identification of mycological and parasitological specimens is reviewed and discussed. This course includes the principles and practices of quality control, the pre- analytical and post-analytical components of clinical microbiology, and the application of safety to laboratory practice. Prerequisite: MICR 2440 (MICR 2340 and MICR 2141) with a grade of c or better AND departmental approval. Restricted to major: CLIN.

CLSC 3364 - Hematology II
This course emphasizes white-cell formation and function. The etiology and treatment of white blood cell disorders are discussed. It also encompasses hemostasis and laboratory determination of hemostatic disorders, including the study of the interaction of blood vessels and platelets with both the coagulation and fibrinolytic systems. Prerequisites: CLSC 3356 and CLSC 3257 with a grade of C or better. Department approval also required. Restricted to major: CLIN

CLSC 3365 - Clinical Chemistry II
Clinical Chemistry II (2-0) A continuation of CLSC 3354 with an emphasis of therapeutic drugs of abuse, toxicology, pharmacokinetics, hormones, and methods. Corequisite: CLSC 3163. Prerequisites: CLIN 3155 and CLIN 3354 each with a grade of "C" or better and department approval.

CLSC 3366 - Infectious Diseases
This course covers the pathogenesis and the epidemiology of pathogenic microorganisms. The diagnosis of infectious diseases by various cultivation isolation and identification techniques is discussed. This course includes the principles and practices of quality control and pre-analytical, analytical, and post analytical components of clinical microbiology and the application of safety to laboratory practice. Restricted to major: CLIN. Corequisite: CLSC 3267. Prerequisites: MICR 2440 with a grade of "C" or better and department approval.

CLSC 3368 - Immunohematology
Immunohematology (3-O) This immuno-chemical reactivity of blood antigens and antibodies, blood grouping, compatibility testing, and hemolytic disease of the newborn are presented. Restricted to major: CLIN. Corequisite: CLSC 3269. Prerequisites: CLSC 3351 and CLSC 3356 each with a grade of "C" or better.

CLSC 4100 - Ethics
Ethics (1-0) A study of legal and ethical principles in health care and laboratory medicine

CLSC 4180 - Seminar
Seminar (1-0) The student will be given the opportunity to develop a broader understanding of the clinical laboratory scientist's role as a health professional ln a variety of learning experiences, including seminars, lectures, and panel discussions. Principles and application of professionalism will be addressed as well as ongoing professional career development. Included in this course are review and practice examination. Restricted to major: CLIN. Prerequisite: Department approval.

CLSC 4190 - Special Problems
Special problems (O-O-1) Independent study in clinical laboratory research. Limit six credits. Prerequisite: Department approval.

CLSC 4273 - Clinical Education
Clinical Education (2-0) This course will cover basic education techniques and terminology to train/educate users and providers of laboratory services, including the development of continuing education programs, curriculum design, program and student assessments, and test development. Restricted to major: CLIN Prerequisite; Department approval.

CLSC 4274 - Clinical Investigation
Clinical Investigation (2-0) This course will cover research in medical/clinical settings with a focus on research planning, design, data collection and dissemination, and evaluation of published studies. Students will design and perform research to include proposal writing. Correlation of disease states and changes in laboratory values will also be included as case studies. Restricted to major; CLIN. Prerequisite: Department approval.

CLSC 4275 – Clinical Lab Mgmt/Supervision
Introductory course in the principles and techniques used in the supervision and management of the clinical laboratory in the health professions. The course includes human resource management, management and motivational theories, communication skills, interviewing, performance appraisals, accreditation agencies, federal and state regulations, budget and strategic planning, evaluation instruments, and the implementation of a laboratory quality improvement program. Financial management is covered including profit and loss, cost/benefit reimbursement requirements, and materials/inventory management. Restricted to major: CLNN, Prerequisite: Department approval.

CLSC 4290 - Special Problems
Special Problems (0-0-2) Independent study in clinical laboratory research. Limit six credits. Prerequisite: Department approval.

CLSC 4311 - Molecular Diagnostics.
This course encompasses diagnostic applications in the clinical laboratory. Areas covered will include genetics, molecular techniques, molecular pathology, principles and practices of quality control and quality assurance including pre-and post-analytical assurance and the application of safety to laboratory practice. The course will focus on applications of molecular diagnostics within a variety of disciplines such as infectious disease, hematology, immunology, hemostasis, forensic science, and transplantation immunology. 3 Credit Hours 3 Total Contact Hours 1 Lab Hour 2 Lecture Hours 0 Other Hours Major Restrictions: Restricted to majors of CLIN

CLSC 4390 - Special Problems Catalog
Entries Special Problems (0-0-3) Independent study in clinical laboratory research. Limit six credits. Prerequisite: Department approval.

CLSC 4471 - Preceptorship I
Instruction and practice of techniques and their applications in the clinical laboratory setting (practicum) in hematology, immunohematology, clinical chemistry, clinical microbiology, coagulation, body fluid analysis, and serology. This course includes the principles and practices of quality control and pre-analytical, analytical, and post-analytical components of laboratory science and the application of safety to laboratory practice. Corequisite CLSC 4472-

CLSC 4472 - Preceptorship II
Instruction and practice of techniques and their applications in the clinical laboratory setting (practicum) in hematology, immunohematology, clinical chemistry, clinical microbiology, coagulation, body-fluid analysis, and serology. This course includes the principles and practices of quality control and pre-analytical, analytical, and post-analytical components of laboratory science and the application of safety to laboratory practice. Corequisite: CLSC 4471. Prerequisite: CLSC 3368 with a grade of C or better.

CLSC 4476 - Preceptorship III
A continuation of CLSC 4471 and 4472. The student will also be given the opportunity to demonstrate (1) the ability to apply knowledge, attitudes, and skills to the clinical laboratory practices and procedures; (2) the ability to integrate previous knowledge and skills with more sophisticated instrumentation and advanced methodology; (3) an attitude of cooperation and concern in interpersonal relationships and interdisciplinary communication and team building with patients and healthcare workers; and (4) an appreciation of the ethical foundations of clinical laboratory sciences. This course includes the principles and practices of quality control and pre-analytical, analytical, and post-analytical components of laboratory

science and the application of safety to laboratory practice. Corequisite: CLSC 4478. Prerequisites: CLSC 4471 and CLSC 4472, each with a grade of C or higher.

CLSC 4478 - Preceptorship IV
A continuation of CLSC 4471 and 4472. The student will also be given the opportunity to demonstrate (1) the ability to apply knowledge, attitudes, and skills to the clinical laboratory practices and procedures; (2) the ability to integrate previous knowledge and skills with more sophisticated instrumentation and advanced methodology; (3) an attitude of cooperation and concern in interpersonal relationships and interdisciplinary communication and team building with patients and healthcare workers; and (4) an appreciation of the ethical foundations of clinical laboratory sciences. This course includes the principles and practices of quality control and pre-analytical, analytical, and post-analytical components of laboratory science and the application of safety to laboratory practice. Corequisite: CLSC 4476. Prerequisites: CLSC 4471and CLSC 4472, each with a grade of C or higher.

UTEP CLS STUDENT HANDBOOK
SIGNATURE PAGE:

I acknowledge that I have received the UTEP, College of Health Sciences, Clinical Laboratory Science Student Handbook, and that the contents were explained to me.

I further acknowledge that it is my responsibility to read and understand its contents.

If I have any questions regarding this CLS Handbook, I will not hesitate to ask the CLS Program Director or its Faculty, so I may be clear about policies and procedures for the Clinical Laboratory Science Program and my responsibilities as a student.

_____

(Print Name)

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(Signature)

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(Date)