February 26, 2014

Memorandum

To: Dr. Lee Blonder
Chair, University Senate Council

From: Dr. Gregory Graf
Chair, SAASC

Re: Medical Laboratory Sciences MLT to MLS Program (SR 4.2.1.2)

The Senate's Admissions and Academic Standards Committee (SAASC) met on February 25th to discuss the proposed development of an MLT to MLS program in the Clinical Laboratory Sciences Program in the College of Health Sciences. Committee members in attendance included: Regina Lowry, Scott Yost, Leslie Scott, Ganpathy Murthy and Gregory Graf. Armando Prats also reviewed the proposal and provided questions and comments. Michele Butina, who developed the proposal, was available to provide context and address questions.

Following a brief review of the relationships among regional MLT and MLS programs, career options for degree holders, and the rationale behind the proposal, a number of issues were addressed.

Development of the program:

1. There was strong agreement that the academic requirements and rigor of the MLT to MLS program will be comparable to those of the traditional MLS program presently offered at UK.
2. Concerns were regarding the absence of language defining the relevant professional MLT experiences of the applicant pool used to 1) determine eligibility for the program and to 2) determine the extent of practicum experience required in year 2 of the curriculum. By example, five years of clinical laboratory experience in a small hospital or blood bank is far different from a clinical lab in a major medical center. The present proposal does not appear to distinguish these experiences. The CLS program director was encouraged to develop clear language and standards regarding experiences of the applicant pool.
3. It was recognized by the committee that while the program is anticipated to be relatively small (5-20 students annually), there is a need for such a program based on the following:
    a. There are a substantial number of regional MLT programs, the graduates of which earn significantly less and generally cannot advance to management positions in clinical laboratory settings in the absence of a bachelor's degree.
    b. Norton Healthcare, and other regional hospital clinical laboratories, employ individuals with substantial clinical laboratory experience, but some employees cannot be certified by the Board of Certification (BOC) since they lack a bachelor's degree and their MLT degree-granting institution was not accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). A "bridge" program at an accredited NAACLS institution such as UK will allow their MLT employees to obtain the necessary credentials for full accreditation.
4. Within the program (current and proposed MLT to MLS), the addition of the Graduation Writing Requirement (GWR) to MLS 470 was agreed to be appropriate and satisfactory. The change moves the GWR within the MLS discipline as opposed to a General Education Course. As few MLT programs contain General Education Core courses with a GWR or GCCR equivalents, this will also fulfill this requirement for many MLT to MLS track students who would otherwise be required to enroll in a General Education Course. The GWR, as outlined in the proposal, was piloted and deemed successful

in the previous academic year and will be implemented as a Graduate Composition and Communication Requirement (GCCR).

Change to Senate Rule 4.2.1.2:

5. It is understood by the SAASC that the number of credit hours required to fulfill 1) MLT (AS or AAS) curriculum, 2) UK General Education Core and 3) MLS prerequisites is in excess of the maximal allowance of 67 transferable to UK from a two-year institution. The absence of a waiver significantly disadvantages individuals in the MLT to MLS program based on the following:
    a. Credit hours that are not transferred will result in a minimum of 13 additional credit hours that must be completed at UK. Depending on the individual case, courses would be replicates of courses already completed in the student's MLT program or unrelated to the MLS discipline. Thus, the adherence to the requirement would enroll MLS students in courses that are likely to be redundant, superfluous or both.
    b. The vast majority of students in the MLT to MLS track hold existing positions in hospital clinical labs. The upper-level MLS didactic coursework is completed on-line; practicums are conducted in hospital clinical labs under the supervision of qualified preceptors (as determined by MLS Program faculty); and the laboratory-based coursework is waived due to the completion of an MLT degree and licensure exam and professional experience of the applicants eligible for this track. The requirement to complete additional coursework at UK may not be conducive to distance-learning or work schedules of non-traditional students.
    c. The program is relatively small, targets a niche population and is unlikely to have a significant impact on the number of students transferring greater than 67 credit hours to UK from a two-year institution.
    d. The minimum number of hours that could be completed at UK by the most experienced MLT graduate is 40. Given the 120 credit hour degree program, this number is in excess of the 25% requirement of courses from the degree granting institution required by SACS.

Following the discussion, members in attendance of SAASC voted unanimously to support 1) the development of the MLT to MLS track in CLS, 2) the MLS470 course revision to include a GWR/GCCR, and 3) the revision of rule 4.2.1.2. Support for the proposal comes with the understanding that the CLS faculty develops clear language outlining standards for evaluation of clinical laboratory experiences of MLTs applying to the program.

Sincerely,

Gregory A. Graf
Associate Professor
Pharmaceutical Sciences
Chair, SAASC

cc:

Dr. Robert Hayes
Dr. Reginal Lowry
Dr. Ganpathy Murthy
Dr. Armando Prats
Dr. Leslie Scott
Dr. Michelle Butina
Dr. Benjamin Withers
Provost, University of Kentucky

UK
UNIVERSITY OF
KENTUCKY
College of Health Sciences

Academic Affairs Committee
120 Wethington Building
Lexington, KY 40536-0200

May 24, 2013

MEMORANDUM

To: Sharon Stewart, Ed.D. – *Interim Dean of the College of Health Sciences*
Phyllis Nash, Ed.D. – *Acting Associate Dean for Academic Affairs*

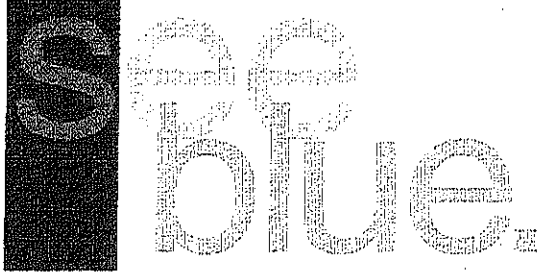
From: Richard Andreatta, Ph.D. - *Chair – Academic Affairs Committee*

RE: MLS Program Change (new degree track) & course change for MLS 470

The faculty of the Medical Laboratory Science (MLS) Program requested approval for the following two curricular proposals: 1) an undergraduate program change to include the development of a MLT (medical laboratory technician) to MLS Track with the waiver of a pre-professional course, (general microbiology with lab), for this new track, and 2) a major course change for MLS 470, to incorporate Graduation Writing Requirement (GWR) criteria into this existing course,

The AA committee reviewed all components of the MLS proposal and generated commentary that was subsequently addressed by the originator of the proposal (Dr. Michelle Butina). Upon receipt of her responses and completion of edits, the AA committee gave final approval for all components of the MLS proposal. This memo serves as official notice from the CHS Academic Affairs Committee of approval of the changes proposed by MLS,

Thank you,
Richard Andreatta



Cc: Michelle Butina, PhD, MLS Program Director

March 26, 2013

Memorandum

TO: Karen Skaff, Clinical Sciences Department Chair

FR: Michelle Butina, Medical Laboratory Science Program Director

RE: Request for Curriculum Changes in the Medical Laboratory Science Program

The faculty of the Medical Laboratory Science (MLS) Program requests approval for the following: 1) undergraduate program changes including the development of a MLT (medical laboratory technician) to MLS Track* and waiver of pre-professional course, general microbiology with lab, for this track, 2) a major course change to incorporate Graduation Writing Requirement (GWR) criteria into an existing MLS course, and 3) exception of SR 4.2.1.2 (maximum of 67 semester hours accepted from a two-year college) for the MLT to MLS Track. The rationale for these changes is attached along with other documents that will assist in understanding the proposed changes to the MLS curriculum.

This list represents the following documents and their order:

- Change requests and rationale
- Track Comparison by Semester
- Track Comparison by Curriculum Area
- Sample Curriculum for KCTCS Student
- Undergraduate Program Change Form
- MLS 470 Major Course Change (Submitted through eCATS)
- MLS 470 Syllabus (Submitted through eCATS)

Please contact Michelle Butina (mbu228@uky.edu or 218-0852) if you have questions or concerns.

*The medical laboratory science profession has more than one career track based on level of education: medical laboratory technician (2 years/associate degree) and medical laboratory scientist (4 to 5 years/bachelor's degree).

PROPOSED CHANGES FOR BACHELOR OF HEALTH SCIENCE DEGREE IN MEDICAL LABORATORY SCIENCE

BACKGROUND IN MEDICAL LABORATORY SCIENCE

Medical laboratory practitioners are those who perform, evaluate, and assure accuracy and validity of laboratory testing. Medical laboratory practitioners assist physicians and other healthcare providers in the diagnosis, prognosis and treatment of patients by performing reliable and accurate laboratory testing.

Clinical or medical laboratory personnel consist of phlebotomists, laboratory assistants, medical laboratory technicians, medical laboratory scientists, administrators and pathologists. Those medical laboratory practitioners actually performing the testing consist of medical laboratory technicians and medical laboratory scientists. Major differences between these two long-standing levels include curriculum content, educational degree, pay scale, and skill level.

CREDENTIAL AND TITLE	**MEDICAL LABORATORY TECHNICIAN (MLT)**	**MEDICAL LABORATORY SCIENTIST (MLS)**
DEGREE	Associate	Bachelor
CURRICULUM	2 year; limited general education; MLT curriculum focuses on theoretical and practical aspects of each of the major laboratory disciplines; includes practicums	4 year; extensive general education and science courses; MLS curriculum that includes more in depth courses in major and minor laboratory disciplines as well as management and education courses; includes practicums
EDUCATIONAL SETTING FOR MLT/MLS PROGRAMS	Two-year community/technical college (most common); proprietary institution; four-year college/university	Four-year college/university (most common); hospital-based
JOB ROLE	Competent in the collection, processing and analysis of biological specimens, the performance of lab procedures, the maintenance of instruments, and relating lab findings to common diseases/conditions	An extensive theoretical knowledge base, therefore they not only perform laboratory procedures including very sophisticated analyses, but also evaluate/interpret the results, integrate data, problem solve, consult, conduct research and develop new test methods
SALARY	In 2010, the average salary for medical laboratory technicians was $40,768	In 2010, the average salary for medical laboratory scientists was $54,412

http://www.ascls.org/professional-development/career-center
http://labmed.ascpjournals.org/content/42/3/141.full.pdf

Medical laboratory practitioners are nationally certified by the American Society for Clinical Pathology (ASCP) Board of Certification (BOC). The BOC (previously known as the Board of Registry, BOR) was founded in 1928 and provides certification to laboratory technicians and technologists/scientists. The BOC has a certification maintenance program in which those certified must complete a certain level of continuing education, every three years, in order to demonstrate continued competence.

According to the 2012 National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) Annual Report, there are generally an equal number of MLT programs (231) and MLS programs (227) in the United States. (http://naacls.org/docs/2012AnnualReport.pdf) Similarly within Kentucky, there are 5 MLS accredited programs (3 four-year colleges and 2 hospital based) and 7 MLT accredited programs (6 two-year colleges and 1 four-year college).

The medical laboratory science profession has been in a chronic shortage for the past 25 years. Three major factors affect this shortage: 1) increased need as medical testing advances, 2) mass exodus of the baby boomer generation which comprises 30-50% of current workforce, and 3) gravely insufficient number of MLT and MLS programs to meet the need. Additional shortage factors consists of high vacancy rates, retention of current personnel as many seek advanced healthcare related degrees, and lack of awareness of the profession.

For 80 years, the University of Kentucky (UK) has offered a Medical Laboratory Science (MLS) Program (formerly known as Medical Technology and Clinical Laboratory Science). Currently, the Program offers a bachelor's degree in health sciences with a major in medical laboratory science. The Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences. The MLS Program is offered at the UK Lexington campus and at the Center of Excellence in Rural Health (CERH) in Hazard.

CURRENT BACHELOR'S DEGREE IN HEALTH SCIENCE WITH MAJOR IN MLS (TRADITIONAL STUDENT TRACK)

Currently, the MLS Program offers a bachelor's degree in health science with major in medical laboratory science, this model is hence forth referred to as the traditional student track to differentiate it from the proposed track. The MLS Program requires students to seek admission into the Program after completion of UK general education core courses and MLS Program pre-professional (or pre-requisite) courses. The MLS Program pre-professional courses include:

- 1 semester of general biology with laboratory
- 2 semesters of general chemistry with laboratory
- 1 semester of organic chemistry with laboratory
- 1 semester of general microbiology with laboratory
- 1 semester of statistical methods
- 1 semester of human physiology (or combined course in physiology and anatomy)

Typically, students are admitted in late spring of their sophomore year and start MLS classes in the fall of their junior year. The 18-month MLS Program consists of 60 credit hours including lecture and laboratory courses and practicums. Upon successful completion of the program, students graduate in December of their senior year. Specific details regarding the curriculum for the Traditional Track can be found on the Track Comparison by Semester document.

REQUEST FOR CHANGE (Traditional Track)

There is one requested change to the Traditional Tack, a major course change in which the MLS Program is seeking Graduation Writing Requirement (GWR) approval within an existing MLS course (MLS 470). (Major course change document and syllabus was submitted through eCATS.) If GWR approval is granted for MLS 470, it will also become a component of the MLT to MLS Track. Currently, the course is delivered via distance learning as a hybrid model (majority is on-line) however it will be slightly modified to be delivered completely on-line for MLT to MLS Track students, if the track is approved.

RATIONALE FOR CHANGE

This request is being made because: 1) the GWR is still being required while several GWR courses were removed in anticipation of the move to the Communication Requirement in the Major (CRM) however it was not approved, 2) difficulties meeting the GWR requirement for students in the Program at the CERH in Hazard (as many are transferring in from two year institutions, further details provided in the note below), 3) the anticipated difficulties meeting the GWR requirement for students entering the MLT to MLS track (described below) as they will be transferring into UK from two year institutions, and 4) to transform this in-depth writing assignment into a discipline specific requirement.

Note: To further elaborate on the difficulties mentioned above, for students transferring in from a two-year institution, the current GWR requirements can only be satisfied by taking a UK course. For MLS students at the CERH in Hazard and those in the proposed MLT to MLS track, the optimal option is an online UK course (in order to avoid the commute to Lexington) that meets the GWR requirements however the offering of such courses are minimal. Another factor currently encountered by students at the CERH is the addition of an extra three credit hour GWR course taken while in the MLS Program which by design has heavy credit hour semesters.

MLS 470, Clinical Correlations, is taught during the last semester of the MLS Program and is considered a review course for the profession's certifying examination. This course was selected as it: 1) is a review course of the major medical laboratory science disciplines and as such is ideal for a lengthy paper assignment covering a multidisciplinary case study or disease, and 2) is co-taught by four faculty members therefore allowing division of the work in reviewing and grading the 15-page paper assignment.

As stipulated by the guidelines for the GWR, MLS 470 seeks to address the following outcomes:

a) The existing course will be revised to include a 15-page paper in which students must draft, edit, revise, and proofread while taking into account instructor reviews.
b) Students must research a topic area focusing on a multidisciplinary approach to a clinical case or a disease as it relates to medical laboratory science. This paper will allow students to demonstrate the ability to perform literature searches, clearly present data and findings, and provide citations in the accepted format for this profession. Further it will allow the writing to focus on a discipline specific topic while promoting more in-depth learning of this topic. The paper must be relatively free of grammatical and mechanical errors.
c) Students must earn a "C" or better to receive GWR credit for this course.

Note: If UK approves the proposed Graduation Composition and Communication Requirement (GCCR), replacing the GWR, the MLS Program would fulfill the new oral or visual requirement via existing assignments within MLS courses. Currently, MLS (traditional track) students have two oral presentation assignments during the 18-month curriculum. For the proposed on-line MLT to MLS track (described below), students will have the same assignments, as Traditional Track students, however they will submit visual/electronic artifacts (e.g., video presentation) instead of a face-to-face oral presentation.

PROPOSED BACHELOR'S DEGREE IN HEALTH SCIENCE WITH MAJOR IN MLS (MLT TO MLS TRACK)

REQUEST FOR CHANGE (MLT to MLS Track)

The Medical Laboratory Science Program, Department of Clinical Sciences, College of Health Science is submitting a proposal for a program revision/change to establish a second student track, MLT to MLS (articulation option), within the MLS Program. This new track would be offered on-line which is the delivery format often utilized with MLT to MLS articulation programs. The anticipated start date for this new track is fall of 2014.

RATIONALE FOR CHANGE

Within the profession, in order to advance into more technical or administrative/supervisory roles, medical laboratory technicians are often required to seek certification as medical laboratory scientists. Without this additional certification, MLT's are limited in their job advancement and salary increases. The Board of Certification (BOC), certifying agency for medical laboratory practitioners, requires that anyone seeking certification as a medical laboratory scientist must have a bachelor's degree. The most common route for MLT's seeking MLS certification is to graduate from a MLT to MLS articulation program ensuring completion of a bachelor's degree and advanced training.

Within the past 15 years, the medical laboratory science profession has seen the development of several on-line or hybrid MLT to MLS articulation programs. These programs have been designed as an efficient means of serving a large population of individuals seeking career advancement. After extensive research, it is estimated (unfortunately, there is not a database of these articulation programs as most tracks exist within an established MLS Program) that 10-15 on-line or hybrid MLT to MLS articulation programs exist in the United States. Geographically, the closest articulation program to Kentucky is at the University of Cincinnati. This is the largest on-line MLT to MLS program, touting hundreds of students per year. Currently, there is not a MLT to MLS articulation program offered in the Commonwealth of Kentucky.

The rationale for offering this new track is to: 1) provide a MLT to MLS articulation program specifically for working MLTs in the Commonwealth of KY, 2) provide a means for MLTs to advance their education via distance learning, 3) fulfill the need of KY hospitals who wish to promote those who have clinical experience and knowledge, and 4) address workforce shortage issues within the profession. The medical laboratory science profession is composed of practitioners who are motivated to advance and the proposed track would fulfill a major need in the healthcare community.

The MLS program proposes a program catering to MLTs working in Kentucky but also acknowledges that an on-line program would attract students from other states. Promotional factors for a program at UK would be smaller class sizes, one faculty member per course, a 100% on-line program, and graduation from the University of Kentucky.

DESCRIPTION OF PROPOSED MLT to MLS TRACK

The MLS program has selective admissions and students are admitted to the professional program on a competitive basis. Applicants must have completed all UK general education core requirements and MLS Program pre-professional requirements prior to entering the program. The application process would include: 1) completion of the MLS application, 2) submission of recommendation forms/letters (exact number to be determined later), and 3) possibly a brief telephone interview session. If the MLT to MLS Track is approved, admission requirements would include: 1) students must achieve an overall (cumulative) GPA of 2.5 and successfully pass all pre-professional courses, 2) an associate degree from a MLT program and 3) ***BOC certification (preferred)** or documentation of 5 years of work experience in a MLT position within a multidisciplinary laboratory, and 4) current employment in a clinical laboratory that offers testing in all major disciplines.

***Note**: BOC certification is preferred as it validates that the MLT has met all criteria set forth by the medical laboratory science profession. However, in order to become certified as a MLT through the BOC, the student must have successfully completed a NAACLS accredited MLT program. Some proprietary educational institutions are not NAACLS accredited thus graduates are not eligible to seek certification. Certification is not required by all hospitals or states for employment, however it is highly recommended. To accommodate students who have graduated from proprietary educational institutions (as suggested by Norton Healthcare System) 5 years of work experience in a MLT position within a multidisciplinary laboratory will be accepted in lieu of certification. It is anticipated that only a small percentage of applicants will not have BOC certification, those without certification must provide the MLS program director with required in-depth documentation. Documentation will be reviewed by the MLS program director before applicant is considered for admission.

There are two populations of students who will seek the MLT to MLS Track. Population A would include those who have an associate in applied science degree (AAS) in Medical Laboratory Technology (MLT) from a Kentucky Community and Technical College System (KCTCS) institution. Population B would include those who have an associate degree (AS or AAS) in Clinical or Medical Laboratory Technology (Clinical Laboratory Technology is synonymous with Medical Laboratory Technology) from various educational institutions within the United States. Regardless of the population, admission requirements and MLS Program pre-professional courses are identical. In addition, students from both populations will require individual review by an academic advisor, (the current MLS traditional track academic advisor in the Office of Student Affairs, College of Health Sciences, will also advise the MLT to MLS track students due to her knowledge of the MLS Program), as their educational backgrounds will vary greatly, to ensure UK general education core and MLS Program pre-professional courses are completed. Ideally, since the track will be offered on-line, UK general education core courses and MLS Program pre-professional courses will be completed locally and transferred into UK.

This proposed MLT to MLS track is essentially the same curriculum that is offered to the Traditional track students with a few minor differences. These minor differences include the target audience, educational backgrounds of the students, and student laboratory courses. (See Sample Curriculum KCTCS Student document and Track Comparison by Curriculum Area document.) The MLS curriculum for Traditional Track students consists of 60 credit hours whereas the curriculum for MLT to MLS Track students consists of 40-48 credit hours. Since the MLT to MLS Track students have more laboratory knowledge, from student laboratories and practicums in their MLT program and work experience, they are not required to take the MLS student laboratory courses. Otherwise, the lecture courses for the Traditional Track and the MLT to MLS Track are identical.

In addition, students in the MLT to MLS Track may not be required to take the maximum amount of practicum credit hours. This will be assessed on an individual basis by the MLS Program Director and depends upon their work experience. The MLS Program Director will request in-depth documentation of work experience. Reviewing the documentation will indicate weaknesses in practical experiences that will result in requiring the maximum amount of practicum credit hours. For example, any potential applicant who has not worked in a particular area of the lab for the past two years will need to take the maximum amount of practicum credit hours. However, if this individual is currently working in that area, then he or she is proficient in the area and will need the minimum amount of practicum credit hours. All students are required to complete a minimum amount of practicum credit hours in order to complete MLS practicum checklists which will be completed more quickly if proficient a student in a particular area in comparison to someone who has not worked in the area during the last two years. The Program Director will review documentation and notify students of their practicum credit hour requirements two months prior to the start of practicum rotations.

POPULATION A (MLT FROM KCTCS INSTITUTIONS)

Currently, there are six KCTCS institutions offering an Associate in Applied Science (AAS) degree in Medical (previously clinical) Laboratory Technology including 1) Henderson Community College, 2) Jefferson Community and Technical College (NAACLS accreditation pending), 3) Madisonville Community College, 4) Somerset Community College, 5) Southeast Kentucky Community and Technical College, and 6) West Kentucky Community and Technical College. The MLS Program is actively working with the KCTCS main office on curriculum mapping in order to streamline MLT students directly into the UK MLS Program, MLT to MLS Track. Ultimately, once the MLT to MLS Track is approved, the MLS Program and KCTCS main office plans to formalize an articulation agreement that would typically allow KCTCS students to complete the MLS Program, MLT to MLS Track, with 40 credit hours.

Students from a KCTCS institution would have a minimum of 99 credit hours (before entering the MLT to MLS track) just by satisfying UK general education core requirements, obtain their Associate in Applied Science (AAS) in medical laboratory technology and complete the MLS Program pre-professional courses. (See Sample Curriculum KCTCS Student; 99 credit hours is composed of 33 credit hours of UK general education core courses, 21 credit hours of MLS Program pre-professional courses, and 45 credit hours of MLT courses.) A KCTCS student

would only fulfill all of these requirements in only 99 credit hours if they did not need remediation courses, had specific career goals, and were well advised. MLT program directors, within KCTCS, have indicated that the majority of their students would not fit into the above category (99 credit hours) and more than likely would have significantly greater than 100 credit hours before seeking admission into the UK MLS Program, MLT to MLS Track.

POPULATION B (MLTs FROM NON-KCTCS INSTITUTIONS)

Population B would include those who have an associate degree (AS or AAS) in Clinical or Medical Laboratory Technology from various educational institutions, excluding KCTCS, within the United States. As indicated in the Background Section of this document, the educational setting for MLT programs consist of two-year community/technical colleges, proprietary educational institutions, and four-year colleges/universities. All of these educational institutions, offering an associate degree in medical laboratory technology, will have similar credit hours and curriculum as KCTCS institutions (detailed description of population A described above). Regardless of educational institution/setting, each applicant must meet the MLS Program admission requirements.

REQUEST FOR CHANGE (MLT to MLS Track)

The Medical Laboratory Science Program, Department of Clinical Sciences, College of Health Science is asking for exception of SR 4.2.1.2. Excerpt from current SR 4.2.1.2 reads:

> **4.2.1.2 Admission to Advanced Standing** [SREC: 6/8/06]
> Applicants for admission must present evidence that they are in good standing in every respect in the institution they last attended. At no time shall college or university records be disregarded to admit an applicant solely on the basis of his/her high school records. Credit hours for courses accepted from a junior college, or other two year colleges or branches, shall be limited to a maximum of 67 semester hours, except for students in the RN-BSN (Registered Nurse to Bachelor of Science in Nursing) program, for whom the limit shall be a maximum of 90 semester hours. Applicants must have maintained a grade point average of 2.0 or an average of C in all previous course work. [US: 12/13/82]
>
> All collegiate level work taken at a fully accredited college or university is recognized credit hour for credit hour except that the dean of a college may require validation by appropriate means of course equivalencies or applicability toward degree requirements for more specialized courses. In order to be classified as fully accredited, a college or university must be a member of one of the six regional accrediting associations, such as the Southern Association of Colleges and Schools. Advanced standing from an unaccredited US college or university may be obtained by special subject examinations. [US: 12/13/82; US: 2/11/91]

RATIONALE FOR CHANGE

Students who obtain their associate degree in medical laboratory technology, from any educational setting, must meet UK general education core and the MLS Program pre-professional requirements. As such, these students will have completed significantly greater than 67 credit or semester hours. Yet, the current allowable number of transferred hours, from a two-year college, at the University of Kentucky is 67 credit or semester hours.

Similar to the College of Nursing exception request and approval of SR 4.2.1.2, made in the spring of 2011, based on education and work experience of RN's; the MLS Program is requesting that the University of Kentucky accept a maximum of 80 credit or semester hours for students in the MLT to MLS Track.
The request is being made based on the following:

- Within the Traditional Track, students are expected to take 37 credit hours of UK general education core courses (including one free elective), 24 credit hours of MLS Program pre-professional courses, and 60 credit hours of MLS courses.
- Course (e.g., general education core, pre-professional) and graduation requirements for students in the MLT to MLS Track should be the same as both tracks result in a bachelor degree in Health Sciences with a major in Medical Laboratory Science.
- As a result of MLT to MLS students work experience and their associate degree in medical laboratory technology, they need a minimum of 40 credit hours in MLS courses instead of the 60 credit hours required for Traditional Track students.
- If MLT to MLS students are only allowed to transfer into UK 67 credit hours (essentially, accounting for UK general education core and MLS Program pre-professional courses) and they only need 40 credit hours of MLS courses, then these students would have to take 13 credit hours of additional UK courses. Yet, these students have met all of the same the expectations and requirements for this degree as Traditional Track students. **Note**: The MLS Program researched the number of required MLS credit hours in other on-line MLT to MLS articulation programs, and the proposed 40-48 hours is comparable.

Additional supporting factors for this request include: 1) it is specific to a small population of students, anticipating maximum of 20 students per year, who already have experience in the profession and must meet MLS Program admission requirements, 2) it will allow students to enter the clinical or medical laboratory workforce more quickly to help alleviate the personnel shortage, 3) it reduces tuition costs for the students overall, and 4) enhances the attractiveness of this track to potential students (essentially leading to the success of this track).

If approved, this exception is only applicable for students who have been accepted into the MLS Program, MLT to MLS Track. Academic rigor (or differences in course content) is addressed by the fact that this MLS Program, regardless of tracks, is selective admissions only and successful completion of MLS program pre-professional courses are still required. In addition, once admitted into the MLS program, there are established academic program progression policies.

REQUEST FOR CHANGE (MLT to MLS Track)

The MLS Program requests that the current MLS Program pre-professional requirement of a general microbiology course with lab be waived for students entering the MLT to MLS Track.

RATIONALE FOR CHANGE

Currently, the pre-professional general microbiology course with laboratory requirement is in place to provide students with a foundation in microbiology concepts and basic laboratory skills. Since the proposed track requires students to have graduated from a MLT program, these students would have taken at least one course in clinical microbiology plus a practicum rotation

in clinical microbiology. These students have received a foundation in microbiology concepts and basic laboratory skills in their MLT program thus a pre-professional microbiology course with laboratory is redundant and should not be required.

TRACK COMPARISON BY SEMESTER

TRADITIONAL TRACK

Current *(proposed)*	Hours
YEAR 1 – FALL	
Composition and Communication I [b]	3
CHE 105 General College Chem I [b]	4
CHE 111 College Chem I Lab [b]	1
General Education [c]	3
BIO 148 Introductory Biology I [a]	3
BIO 155 Lab for Introductory Biology [a]	1
Current Total, Year 1 Fall	**15**
YEAR 1 – SPRING	
Composition and Communication II [b]	3
MA 123 Ele. Calculus [b]	4
CHE 107 General College Chem II [a]	3
CHE 113 Lab for College Chem II [a]	2
General Education [c]	3
Current Total, Year 1 Spring	**15**
YEAR 2 – FALL	
PSY 100 Introduction to Psychology [b]	4
CHE 230 Organic Chem I [a]	3
CHE 231 Lab Organic Chem I [a]	1
BIO 208 Principles of Microbiolgy [a]	3
BIO 209 Lab Microbiolog [a]	2
Statistical Inferential Reasoning [b]	3
Current Total, Year 2 Fall	**16**
YEAR 2 – SPRING	
GWR *(Free elective)*	3
PGY 206 Elementary Physiology [a]	3
STA 291 Statistical Methods [a]	3
General Education [c]	3
General Education [c]	3
Current Total, Year 2 Spring	**15**
YEAR 3 – FALL	
MLS 400 Laboratory Techniques and Phle.	2
MLS 410 Medical Laboratory Biochemis.	3
MLS 420 Clinical Immunology & Serology	3
MLS 460 Clinical Hematology	3
MLS 465 Clinical Hematology Laborato.	2
MLS 461 Clinical Microbiology	3
MLS 466 Clinical Microbiology Laborat.	2
Current Total, Year 3 Fall	**18**

MLT TO MLS TRACK

Proposed	*Hours*
UK General Education Core Courses will be transferred in (minimum of 30 credit hours)	
MLS Program Pre-professional courses will be transferred in (typically minimum of 22 credit hours but will vary depending upon educational institution in which couses were taken and if the course was included in general education core, e.g., college chemistry I)	
MLT (or CLT) Curriculum/Program credit hours will vary depending upon educational institutions in which program completed, (typically minimum of 40 credit hours)	
Note: MLS Program is requesting that credit hours for courses accepted from a junior college, or other two year colleges or branches, shall be limited to a maximum of 67 semester hours, except for the MLT to MLS track (MLS Program), for whom the limit shall be a maximum of 80	
YEAR 1 – FALL	
MLS 410 Medical Laboratory Biochemis.	3
MLS 420 Clinical Immunology & Serology	3
MLS 460 Clinical Hematology	3
---------Lab course not required as MLT--------	
MLS 461 Clinical Microbiology	3
---------Lab course not required as MLT--------	
Current Total, Year 3 Fall	**12**

Current	Hours
YEAR 3 – SPRING	
MLS 430 Clinical Mycology, Parasitolo.	3
MLS 462 Clinical Chemistry	3
MLS 467 Clinical Chemistry Laboratory	2
MLS 463 Immunohematology	3
MLS 468 Immunohematology Laborator.	2
MLS 464 Body Fluids & Hemostasis	2
MLS 469 Body Fluids & Hemostasis Lab	2
Current Total, Year 3 Spring	**17**
YEAR 3 – SUMMER SESSION 1	
MLS 440 Molecular Techniques	3
Current Total, Year 3 Sum.(1)	**3**
YEAR 3 – SUMMER SESSION 2	
MLS 450 MLS Education & Manageme.	3
MLS 480 Clinical Hematology Practicum	4
Current Total, Year 3 Sum.(2)	**7**
YEAR 4 – FALL	
MLS 470 Clinical Correlations *(w/GWR)*	3
MLS 481 Clinical Microbiology Practicum	4
MLS 482 Clinical Chemistry Practicum	4
MLS 483 Immunohematology Practicum	4
Current Total, Year 4 Fall	**15**
YEAR 4 – SPRING	
Graduate in December – no spring courses	

Proposed	*Hours*
YEAR 1 – SPRING	
MLS 430 Clinical Mycology, Parasitolo.	3
MLS 462 Clinical Chemistry	3
---------Lab course not required as MLT--------	
MLS 463 Immunohematology	3
---------Lab course not required as MLT--------	
MLS 464 Body Fluids & Hemostasis	2
---------Lab course not required as MLT--------	
Current Total, Year 3 Spring	**11**
YEAR 1 – SUMMER SESSION 1	
MLS 440 Molecular Techniques	3
Current Total, Year 3 Sum.(1)	**3**
YEAR 1 – SUMMER SESSION 2	
MLS 450 MLS Education & Manageme.	3
MLS 480 Clinical Hematology Practicum	2-4*
Current Total, Year 3 Sum.(2)	**5-7**
YEAR 2 – FALL	
MLS 470 Clinical Correlations	3
MLS 481 Clinical Microbiology Practicum	2-4*
MLS 482 Clinical Chemistry Practicum	2-4*
MLS 483 Immunohematology Practicum	2-4*
Current Total, Year 4 Fall	**9-15**
YEAR 2 – SPRING	
Graduate in December – no spring courses	

[a] MLS Pre-professional (pre-requisite) course.
[b]Course satisfies UK general education core.
[c]Select a course from either (1) Inquiry in the Humanities, (2) Inquiry in Creativity & Arts, (3) Community, Culture and Citizenship in the U.S., or (4) Global Dynamics. Students must take one course from each of the above categories in order to fulfill general education requirements.
*Practicum credit hours will vary for MLT to MLS track students as each students' educational background and work experience varies.

TOTALS:
UK General education totals (34) + Free Elective (3) = 37
MLS Pre-professional course totals = 24
MLS Professional course totals = 60

Overall Total = 121

TOTALS:
General education total = minimum 30
Pre-professional course totals = minimum 22
Professional course totals = 40-48

Overall Total = At least 120

TRACK COMPARISON BY CURRICULUM AREA

UK GENERAL EDUCATION CORE and FREE ELECTIVES

TRADITIONAL TRACK			MLT TO MLS TRACK (KCTCS Example)		
AREA	COURSE	CREDIT	AREA	COURSE	CREDIT
Composition and Communication	CIS/WRD 110	3	Written Communication	Eng 101	3
	CIS/WRD 111	3		Eng 102	3
				COM 181 or 252	3
				Select 2 courses from list of	
Arts & Creativity	Select 1 course	3	Arts and Humanities	GETA approved courses	6
Humanities	Select 1 course	3			
Social Sciences	PSY 100	4	Social and Behavioral	PSY 100	3
				Select 1 course from list of	
				GETA approved courses	3
Natural/Physical/Mathematical	CHE 105*	4	Natural Sciences	CHE 170*	3
	CHE 111*	1		CHE 173*	1
				CHE 175*	1
				CHE 183*	1
Quantitative Foundations	MA 123	4	Quantiative Reasoning	MA 123	3
Statistical Inferential Reasoning	Select 1 course	3		STA 291*	3
Community, Culture and Citizenship	Select 1 course	3			
Global Dynamics	Select 1 course	3			
Free Elective		3			
		37			33

PRE-PROFESSIONAL COURSES (FOR MLS PROGRAM)

TRADITIONAL TRACK			MLT TO MLS TRACK (KCTCS Example)		
AREA	COURSE	CREDIT	AREA	COURSE	CREDIT
General Biology with lab	BIO 148	3	General Biology with lab	BIO 114	3
	BIO 155	1		BIO 115	1
General Chemistry with lab	CHE 107	3	General Chemistry with lab	CHE 180	3
	CHE 113	2		CHE 185	1
Organic Chemistry with lab	CHE 230	3	Organic Chemistry with lab	CHE 270	3
	CHE 231	1		CHE 275	2
General Microbiology with lab	BIO 208	3	General Microbiology with lab	Waived	0
	BIO 209	2			
Statistical Methods	STA 291	3	Statistical Methods	STA 291 - taken as gen ed	0
Human Physiology (or combined course in physiology and anatomy)	PGY 206	3	Human Physiology (or combined course in physiology and anatomy)	BIO 137	4

	24	BIO 139	4 21

ADMISSIONS	
Selective Admissions - Abbreviated: Completion of UK gen ed core and pre-professional courses; minimum cumulative GPA of 2.5	Abbreviated: Associate's degree from CLT/MLT Program; completion of UK gen ed core and pre-professional courses; minimum cumulative GPA of 2.5; either certification or 5 years experience, employed in laboratory

MLS MAJOR COURSES

COURSE	CREDIT	COURSE	CREDIT
MLS 400 Laboratory Techniques and Phlebotomy	2		
MLS 410 Medical Laboratory Biochemisty	3	MLS 410 Medical Laboratory Biochemisty	3
MLS 420 Clinical Immunology & Serology	3	MLS 420 Clinical Immunology & Serology	3
MLS 460 Clinical Hematology	3	MLS 460 Clinical Hematology	3
MLS 465 Clinical Hematology Laboratory	2		
MLS 461 Clinical Microbiology	3	MLS 461 Clinical Microbiology	3
MLS 466 Clinical Microbiology Laborary	2		
MLS 430 Clinical Mycology, Parasitology	3	MLS 430 Clinical Mycology, Parasitology	3
MLS 462 Clinical Chemistry	3	MLS 462 Clinical Chemistry	3
MLS 467 Clinical Chemistry Laboratory	2		
MLS 463 Immunohematology	3	MLS 463 Immunohematology	3
MLS 468 Immunohematology Laboratory	2		
MLS 464 Body Fluids & Hemostasis	2	MLS 464 Body Fluids & Hemostasis	2
MLS 469 Body Fluids & Hemostasis Laboratory	2		
MLS 440 Molecular Techniques	3	MLS 440 Molecular Techniques	3
MLS 450 MLS Education & Management	3	MLS 450 MLS Education & Management	3
MLS 480 Clinical Hematology Practicum	4	MLS 480 Clinical Hematology Practicum	2-4
MLS 470 Clinical Correlations (w/GWR)	3	MLS 470 Clinical Correlations (w/GWR)	3
MLS 481 Clinical Microbiology Practicum	4	MLS 481 Clinical Microbiology Practicum	2-4
MLS 482 Clinical Chemistry Practicum	4	MLS 482 Clinical Chemistry Practicum	2-4
MLS 483 Immunohematology Practicum	4	MLS 483 Immunohematology Practicum	2-4
	60		40-48

SAMPLE CURRICULUM KCTCS (MLT) STUDENT

Recommended sequence of courses for MLT students at KCTCS educational institutions. Note: Courses listed below are KCTCS courses that are equivalent to UK courses according to transfer equivalency database.

GENERAL EDUCATION CORE

CATEGORY	COURSE	CREDIT HOURS
Communications	Eng 101	3
	Eng 102	3
	COM 181 or COM 252	3
Arts and Humanities	Select 2 courses from list of approved GETA* courses	6
Natural Sciences	CHE 170**	3
	CHE 173 **	1
	CHE 175 **	1
	CHE 183 **	1
Social and Behavior Sciences	PSY 110	3
	Select 1 courses from list of approved GETA* courses	3
Quantitative Reasoning	MA 123	3
	STA 291**	3
	TOTAL	***33***

*General Education Transfer Agreement

**Courses are also count as MLS Program Pre-Professional courses

MLS PROGRAM PRE-PROFESSIONAL COURSES

REQUIREMENT	COURSE	CREDIT HOURS
Physiology Requirement	BIO 137 & 139	8
General Chemistry I Requirement	Listed above as general education core course	0
General Chemistry II Requirement	CHE 180 & 185	4
Organic Chemistry I Requirement	CHE 270/275	5
General Biology Requirement	BIO 114/115	4
Microbiology Requirement	Waived	0
Statistical Reasoning Requirement	Listed above as general education core course	0
	TOTAL	***21***

MLT PROGRAM COURSES – TRACK 1 (Offered at Somerset Community College, Southeast KY Community and Technical College, Henderson Community College)

CLT 111	Urinalysis	2
CLT 125	Serology	2
CLT 215 & 216	Hematology I & II	7
CLT 225 & 226	Immunohematology I & II	7
BIO 225	Medical Microbiology	4
CLT 101	Intro to Clinical Lab	3
PHB 151 & 152	Phlebotomy for Healthcare Worker & Clinical Experience	2
CLT 205 & 206	Clinical Microbiology I & II	5
CLT 235 & 236	Clinical Chemistry I & II	5
CLT 280	Practicum I	4
CLT 290	Practicum II	4
	TOTAL	***45***

MLT PROGRAM COURSES – TRACK 2 (Offered at Jefferson Community College, Madisonville Community College, West KY Community and Technical College)

CLT 111	Urinalysis	2
CLT 125	Serology	2
CLT 215 & 216	Hematology I & II	7
CLT 225 & 226	Immunohematology I & II	7
CLT 207	Intro to Microbiology	2
PHB 170 & 152	Applied Phlebotomy & Clinical Experience	4
CLT 208 & 209	Clinical Diagnostic Microbiolgoy I & II	5
CLT 237 & 238	Introduction to Clinical Chemistry & Advanced	5
CLT 280	Practicum I	5
CLT 290	Practicum II	5
CLT 111	Urinalysis	2
	TOTAL	***46***

TOTALS

General Education Core	33
Mls program pre-professional courses	21
Mlt program courses – track 1	45
Mlt program courses – track 2	46
OVERALL TOTAL	***99-100***

Note: Ninety-nine credit hours would be the minimum and would only occur in circumstances in which the student did not require remediation courses and was well advised upon entrance into KCTCS institution.

CHANGE UNDERGRADUATE PROGRAM FORM

1. General Information

College: Health Sciences		Department:	Medical Laboratory Sciences
Current Major Name:	Medical Laboratory Sciences	*Proposed Major Name:*	*No change*
Current Degree Title:	Bachelor of Health Sciences	*Proposed Degree Title:*	*No change*
Formal Option(s):	Traditional Track	*Proposed Formal Option(s):*	*Traditional Track (only one change to GWR requirement, see #4) and MLT to MLS Track*
Specialty Field w/in Formal Option:	———	*Proposed Specialty Field w/in Formal Options:*	———
Date of Contact with Associate Provost for Academic Administration[1]:			
Bulletin (yr & pgs):	2012-2013 pgs 251	CIP Code[1]:	51.1005
Today's Date:	3/25/13		
Accrediting Agency (if applicable):	National Accrediting Agency for Clincial Laboratory Science		
Requested Effective Date:	☐ Semester following approval.	OR	☒ Specific Date[2]: Fall 2014
Dept. Contact Person:	Dr. Michelle Butina	Phone:	859-218-0852
Email:	mbu228@uky.edu		

2. General Education Curriculum for this Program:

The new General Education curriculum is comprised of the equivalent of 30 credit hours of course work. There are, however, some courses that exceed 3 credits & this would result in more than 30 credits in some majors.

- There is no foreign language requirement for the new Gen Ed curriculum.
- There is no General Education Electives requirement.

Please list the courses/credit hours currently used to fulfill the University Studies/General Education curriculum:

See courses below. Note: "Choose 1 from list" indicates that the student can select any UK approved course for that general education area.

Please identify below the suggested courses/credit hours to fulfill the General Education curriculum.

General Education Area	Course	Credit Hrs
I. Intellectual Inquiry (one course in each area)		
Arts and Creativity	*Choose 1 from list*	*3*
Humanities	*Choose 1 from list*	*3*
Social Sciences	*PSY 100*	*4*
Natural/Physical/Mathematical	*CHE 105 & 111*	*5*
II. Composition and Communication		
Composition and Communication I	CIS or WRD 110	3
Composition and Communication II	CIS or WRD 111	3

[1] Prior to filling out this form, you MUST contact the Associate Provost for Academic Administration (APAA). If you do not know the CIP code, the (APAA) can provide you with that during the contact.

[2] Program changes are typically made effective for the semester following approval. No program will be made effective until all approvals are received.

III. Quantitative Reasoning (one course in each area)		
Quantitative Foundations[3]	*MA 123*	*4*
Statistical Inferential Reasoning	*Choose 1 from list*	*3*
IV. Citizenship (one course in each area)		
Community, Culture and Citizenship in the USA	*Choose 1 from list*	*3*
Global Dynamics	*Choose 1 from list*	*3*
Total General Education Hours		*34*

3. Explain whether the proposed changes to the program (as described in sections 4 to 12) involve courses offered by another department/program. Routing Signature Log must include approval by faculty of additional department(s).

Proposed changes to the MLS program will not involve courses offered by other departments/programs

4. Explain how satisfaction of the University Graduation Writing Requirement will be changed.

Current	*Proposed*
☒ Standard University course offering. List: Choose 1	☐ *Standard University course offering. List:* ____
☐ Specific course – list: ____	☒ *Specific course) – list:* *MLS 470*

5. List any changes to college-level requirements that must be satisfied.

Current	*Proposed*
☒ Standard college requirement. List: ____	☒ *Standard college requirement. List:* ____
☐ Specific required course – list: ____	☐ *Specific course – list:* ____

6. List pre-major or pre-professional course requirements that will change, including credit hours.

Current	*Proposed*
BIO 208/209: 5credits	*Waived for those accepted into the MLT to MLS Track*

7. List the major's course requirements that will change, including credit hours.

Current	*Proposed*
See attached Track Comparison by Semester document.	*See attached Track Comparison by Semester document.*

8. Does the pgm require a minor AND does the proposed change affect the required minor? ☐ N/A ☐ Yes ☒ No

If "Yes," indicate current courses and proposed changes below.

Current	*Proposed*
____	____

9. Does the proposed change affect any option(s)? ☐ N/A ☒ Yes ☐ No

If "Yes," indicate current courses and proposed changes below, including credit hours, and also specialties and

[3] Note that MA 109 is NOT approved as a Quantitative Foundations course. Students in a major requiring calculus will use a calculus course (MA 113, 123, 137 or 138) while students not requiring calculus should take MA 111, PHI 120 or another approved course.

subspecialties, if any.

Current	*Proposed*
———	*The MLT to MLS Track is a new option being proposed. The change to the GWR (see #4 above) will affect the Traditional Track*

10. Does the change affect pgm requirements for number of credit hrs outside the major subject in a related field? ☐ Yes ☒ No

If so, indicate current courses and proposed changes below.

Current	*Proposed*
———	———

11. Does the change affect pgm requirements for technical or professional support electives? ☐ Yes ☒ No

If so, indicate current courses and proposed changes below.

Current	*Proposed*
———	———

12. Does the change affect a minimum number of free credit hours or support electives? ☒ Yes ☐ No

If "Yes," indicate current courses and proposed changes below.

Current	*Proposed*
0	*3 for Traditional Track; due to change in GWR (see #4 above)*

13. Summary of changes in required credit hours:

		Current	*Proposed*
a.	Credit Hours of Premajor or Preprofessional Courses:	24	*minimum 22; will vary depending on where transferred in from*
b.	Credit Hours of Major's Requirements:	60	*40-48*
c.	Credit Hours for Required Minor:	0	*0*
d.	Credit Hours Needed for a Specific Option:	60	*40-48*
e.	Credit Hours Outside of Major Subject in Related Field:	———	———
f.	Credit Hours in Technical or Professional Support Electives:	———	———
g.	Minimum Credit Hours of Free/Supportive Electives:	———	———
h.	Total Credit Hours Required by Level:	100: ———	———
		200: ———	———
		300: ———	———
		400-500: ———	———
i.	Total Credit Hours Required for Graduation:	121	*120*

14. Rationale for Change(s) – if rationale involves accreditation requirements, please include specific references to that.

CHANGE UNDERGRADUATE PROGRAM FORM

See attached rationale document. Proposed Changes for Bachelof Health Science Degree in Medical Laboratory Science.

15. List below the typical semester by semester program for the major. If multiple options are available, attach a separate sheet for each option.

YEAR 1 – FALL: (e.g. "BIO 103; 3 credits")	See attached Track Comparison by Semester document.	**YEAR 1 – SPRING:**	*See attached Track Comparison by Semester document.*
YEAR 2 - FALL :	———	**YEAR 2 – SPRING:**	———
YEAR 3 - FALL:	———	**YEAR 3 - SPRING:**	———
YEAR 4 - FALL:	———	**YEAR 4 - SPRING:**	———

CHANGE UNDERGRADUATE PROGRAM FORM

Signature Routing Log

General Information:

Current Degree Title and Major Name: BHS with a major in Medical Laboratory Science

Proposal Contact Person Name: Dr. Michelle Butina Phone: 859-218-0852 Email: mbu228@uky.edu

INSTRUCTIONS:

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

Internal College Approvals and Course Cross-listing Approvals:

Reviewing Group	Date Approved	Contact Person (name/phone/email)	Signature
MLS Faculty	3/20/13	Dr.Michelle Butina / 218-0852 / mbu228@uky.edu	Michelle Butina
Clinical Sciences Department	3/26/13	Dr. Karen Skaff / 218-0585 / karen.skaff@uky.edu	
CHS Interim Associate Dean for Academic Affairs	5/6/13	Dr. Phyllis Nash / 218-0570 / pnash@uky.edu	
		/ /	
		/ /	

External-to-College Approvals:

Council	Date Approved	Signature	Approval of Revision[4]
Undergraduate Council	10/29/13	Joanie Ett-Mims	
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:

[4] Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

A student who would not have been automatically accepted but has completed 24 semester hours or more and achieved a cumulative GPA of 2.0 or better for all college and university work attempted and has a cumulative GPA of 2.0 or better for all work attempted at the last institution attended will be allowed to transfer to UK. [US: 3/11/85]

G. International Students

Undergraduate international student applicants with a TOEFL score of 525 or above may be admitted. An applicant with a TOEFL score below 525 may be admitted if other factors such as previous academic record, interviews and other English tests indicate that the applicant will be academically successful. Decisions concerning admission of applicants with scores below 525 shall be made by the Admissions Committee. International students who are not admissible to the University due to their level of competency in English may apply to the University Center for English as a Second Language for instruction before applying to the University itself. Admission to the programs administered by this center does not guarantee future admission to the University. [US: 3/21/83 & BoT: 5/3/83]

4.2.1.2 Admission to Advanced Standing [SREC: : 6/8/06]

Applicants for admission must present evidence that they are in good standing in every respect in the institution they last attended. At no time shall college or university records be disregarded to admit an applicant solely on the basis of his/her high school records. Credit hours for courses accepted from a junior college, or other two year colleges or branches, shall be limited to a maximum of 67 semester hours, except for the programs listed below.

1. Sstudents in the RN-BSN (Registered Nurse to Bachelor of Science in Nursing) program, for whom the limit shall be a maximum of 90 semester hours. Applicants must have maintained a grade point average of 2.0 or an average of C in all previous course work. [US: 12/13/82]
2. Students in the MLT to MLS (medical laboratory technician to medical laboratory scientist) track, of the Medical Laboratory Science program, for whom the limit shall be a maximum of 80 semester hours.

All collegiate level work taken at a fully accredited college or university is recognized credit hour for credit hour except that the dean of a college may require validation by appropriate means of course equivalencies or applicability toward degree requirements for more specialized courses. In order to be classified as fully accredited, a college or university must be a member of one of the six regional accrediting associations, such as the Southern Association of Colleges and Schools. Advanced standing from an unaccredited US college or university may be obtained by special subject examinations. [US: 12/13/82; US: 2/11/91]

4.2.1.3 NON-DEGREE STUDENTS

4.2.1.3.1 Goal [US: 10/11/93]

The goal of the University of Kentucky policy for non-degree students is to provide appropriate access to academic courses for students who would like to continue their education, but who do not wish to seek a degree. Although degree seeking students should have top priority in terms of utilization of University resources, the University does wish to provide access to these resources on a space available basis for non degree seeking students. This policy will provide reasonable access to a broader range of students without unnecessarily limiting University resources for degree seeking students.

Courses | Request Tracking

Course Change Form

https://myuk.uky.edu/sap/bc/soap/rfc?services=

Open in full window to print or save

Attachments:

Browse...

	ID	Attachment
Delete	1607	Memo for MLS 470 GWR 3-26-13.docx
Delete	1608	MLS 470 Syllabus.docx

First 1 Last

Select saved project to retrieve... Go to Request Tracking Page

NOTE: Start form entry by choosing the Current Prefix and Number
(*denotes required fields)

	Current Prefix and Number:	MLS - Medical Laboratory Science MLS 470 - CLINICAL CORRELATIONS	*Proposed Prefix & Number:*	

*	What type of change is being proposed?	◉ Major Change ☐ Major – Add Distance Learning ☐ Minor - change in number within the same hundred series, exception 600-799 is the same "hundred series" ☐ Minor - editorial change in course title or description which does not imply change in content or emphasis ☐ Minor - a change in prerequisite(s) which does not imply a change in course content or emphasis, or which is made necessary by the elimination or significant alteration of the prerequisite(s) ☐ Minor - a cross listing of a course as described above

Should this course be a UK Core Course? ○ Yes ◉ No

If YES, check the areas that apply:

☐ Inquiry - Arts & Creativity	☐ Composition & Communications - II
☐ Inquiry - Humanities	☐ Quantitative Foundations
☐ Inquiry - Nat/Math/Phys Sci	☐ Statistical Inferential Reasoning
☐ Inquiry - Social Sciences	☐ U.S. Citizenship, Community, Diversity
☐ Composition & Communications - I	☐ Global Dynamics

1. General Information

a. Submitted by the College of: College of Health Sciences Submission Date: 7/19/2013

b. Department/Division: Clinical Laboratory Sciences

c.* Is there a change in "ownership" of the course?

○ Yes ◉ No If YES, what college/department will offer the course instead? Select...

e.* * Contact Person Name: Michelle Butina Email: mbu228@uky.edu Phone: 859-218-0852

* Responsible Faculty ID (if different from Contact) Email: Phone:

f.* Requested Effective Date: ☑ Semester Following Approval OR Specific Term:

2. Designation and Description of Proposed Course.

a.	Current Distance Learning(DL) Status:	○ N/A ◉ Already approved for DL* ○ Please Add ○ Please Drop
	*If already approved for DL, the Distance Learning Form must also be submitted unless the department affirms (by checking this box) that the proposed changes do not affect DL delivery.	

b.	**Full Title:**	CLINICAL CORRELATIONS	*Proposed Title:* *	No change	
c.	**Current Transcript Title** (if full title is more than 40 characters):	CLINICAL CORRELATIONS			
c.	*Proposed Transcript Title (if full title is more than 40 characters):*	No change			
d.	**Current Cross-listing:**	(•) N/A	OR	Currently[3] Cross-listed with (Prefix & Number):	none
	Proposed – ADD[3] Cross-listing (Prefix & Number):				
	Proposed – REMOVE[3,4] Cross-listing (Prefix & Number):				

e. **Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours[5] for each meeting pattern type.**

Current:	Lecture 48	Laboratory[5]	Recitation	Discussion	Indep. Study
	Clinical	Colloquium	Practicum	Research	Residency
	Seminar	Studio	Other Please explain:		
Proposed: *	Lecture 48	Laboratory[5]	Recitation	Discussion	Indep. Study
	Clinical	Colloquium	Practicum	Research	Residency
	Seminar	Studio	Other Please explain:		

f.	**Current Grading System:**	ABC Letter Grade Scale	
	*Proposed Grading System:**	(•) *Letter (A, B, C, etc.)* ( ) *Pass/Fail* ( ) *Medicine Numeric Grade (Non-medical students will receive a letter grade)* ( ) *Graduate School Grade Scale*	
g.	**Current number of credit hours:**	3	*Proposed number of credit hours:** 3
h.*	**Currently, is this course repeatable for additional credit?**		( ) Yes (•) No
*	*Proposed to be repeatable for additional credit?*		( ) Yes (•) No
	If YES:	*Maximum number of credit hours:*	
	If YES:	*Will this course allow multiple registrations during the same semester?*	( ) Yes ( ) No

i. **Current Course Description for Bulletin:**

A comprehensive review of the medical laboratory science profession using clinical and multidisciplinary case studies. In addition, students will take mock certification exams and present a multi- disciplinary case study.

* *Proposed Course Description for Bulletin:*

This course is designed to review primary concepts taught in the major medical laboratory science disciplines. Reviews will be conducted by utilization of clinical and multi-disciplinary case studies, certifying mock examinations, comprehensive writing activity, and additional review assignments.

j. **Current Prerequisites, if any:**

Prereq: Admission into the Medical Laboratory Science Program or consent of instructor.

* *Proposed Prerequisites, if any:*

*	Prereq: Admission into the Medical Laboratory Science Program or consent of instructor.	
k.	**Current Supplementary Teaching Component, if any:**	○ Community-Based Experience ◉ Service Learning ○ Both
	Proposed Supplementary Teaching Component:	○ Community-Based Experience ○ Service Learning ○ Both ◉ No Change
3.	**Currently, is this course taught off campus?**	◉ Yes ○ No
*	*Proposed to be taught off campus?*	◉ Yes ○ No
	If YES, enter the off campus address: Hybrid course with ITV to CERH in Hazard. If proposed track is approved it will be also be taught on-line.	
4.*	**Are significant changes in content/student learning outcomes of the course being proposed?**	◉ Yes ○ No
	If YES, explain and offer brief rationale:	
	The Medical Laboratory Science Program is seeking Graduation Writing Requirement (GWR) approval within this previously existing course, MLS 470. The new GWR component would include a comprehensive paper assignment covering a multidisciplinary case study or disease as it relates to medical laboratory science. This request is being made because: 1) the GWR is still being required while several GWR courses were removed in anticipation of the move to the Communication Requirement in the Major (CRM,) however it was not approved, 2) difficulties meeting the GWR requirement for students in the Program at the CERH in Hazard (as many are transferring in from two year institutions), 3) the anticipated difficulties meeting the GWR requirement for students entering the MLT to MLS Track (proposed track) as they will be transferring into UK from two year institutions, and 4) to transform this in-depth writing assignment into a discipline specific acitivity.	
5.	**Course Relationship to Program(s).**	
a.*	**Are there other depts and/or pgms that could be affected by the proposed change?**	○ Yes ◉ No
	If YES, identify the depts. and/or pgms:	
b.*	**Will modifying this course result in a new requirement[Z] for ANY program?**	○ Yes ◉ No
	If YES[Z], list the program(s) here:	
6.	**Information to be Placed on Syllabus.**	
a.	☐ Check box if changed to 400G or 500.	If changed to 400G- or 500-level course you must send in a syllabus and *you must include the differentiation* between undergraduate and graduate students by: (i) requiring additional assignments by the graduate students; and/or (ii) establishing different grading criteria in the course for graduate students. (See *SR 3.1.4.*)

[1] See comment description regarding minor course change. *Minor changes are sent directly from dean's office to Senate Council Chair.* If Chair deems the change as "not minor," the form will be sen appropriate academic Council for normal processing and contact person is informed.
[2] Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.
[3] Signature of the chair of the cross-listing department is required on the Signature Routing Log.
[4] Removing a cross-listing does not drop the other course – it merely unlinks the two courses.
[5] Generally, undergrad courses are developed such that one semester hr of credit represents 1 hr of classroom meeting per wk for a semester, exclusive of any lab meeting. Lab meeting generally re least two hrs per wk for a semester for 1 credit hour. (See *SR 5.2.1.*)
[6] You must *also* submit the Distance Learning Form in order for the course to be considered for DL delivery.
[7] In order to change a program, a program change form must also be submitted.

[redacted] [redacted] Document Saved Successfully.

University of Kentucky
College of Health Sciences
Department of Clinical Sciences
Clinical Laboratory Sciences

Course Number/Title/Section:	MLS 470 Clinical Correlations, Section 201
Course Credit:	**3** credits
Course Time /Place:	Online and face-to-face meetings (ITV delivery, Lexington and Hazard) For dates, times and room locations, see schedule below
Course Faculty:	**Course Coordinator and Chemistry Review:** Linda S. Gorman, PhD, MLS 126G CTW Bldg. 900 S. Limestone Lexington, KY 40536-0200 Email (preferred for contacting instructor): lsgorm0@uky.edu Office phone: (859) 218-0855 **Hematology Review:** Michelle Butina, PhD, MLS(ASCP) 126E CTW Bldg. 900 S. Limestone Lexington, KY 40536-0200 Email (preferred for contacting instructor): Michelle.Butina@uky.edu Office phone: (859) 218-0852 **Microbiology Review:** Kim Campbell, MLS(ASCP)^{CM} 126D CTW Bldg. 900 S. Limestone Lexington, KY 40536-0200 Email (preferred for contacting instructor): kkcamp1@uky.edu Office phone: (859) 218-0853 **Immunohematology Review:** Steve Schwarze, PhD, MLS(ASCP) 126B CTW Bldg. 900 S. Limestone Lexington, KY 40536-0200 Email (preferred for contacting instructor): Steve.Schwarze@uky.edu Office phone: (859) 218-0846
Office Hours:	Contact by email for an appointment
Virtual Office Hours:	TBD

Repsonse Time: Maximum timeframe for responding to student communications is 24 hours

Delivery Format:
MLS 470 is a distance learning course and will be delivered on-line with a few face-to-face ITV (Lexington campus and CERH in Hazard campus) meetings. All course content will be available on Blackboard.

Technological Requirements:

- Access to a computer with Internet capabilities (DSL or Cable modems are highly recommended.)
- System Requirements for Blackboard see http://wiki.uky.edu/blackboard/Wiki%20Pages/FAQS.aspx

Technology Support:

- Contact information for Teaching and Learning Services Center (TASC):
  Website: http://www.uky.edu/TASC/
  Phone: 859-257-8272
- Contact information for Information Technology Customer Service Center (ITSC):
  Website: http://www.uky.edu/UKIT/
  Phone: 859-218-HELP
- Procedure for resolving technical complaints: Contact TASC or ITSC first, then contact instructor

Distance Learning Library Services:

- Contact information for Distance Learning Library Services:
  Website: http://www.uky.edu/Libraries/DLLS
  DL Librarian: Carla Cantagallo
  Email: dllservice@email.uky.edu
  Phone: 859 257-0500, ext. 2171; (800) 828-0439 (option #6)
  DL Interlibrary Loan Service:
  http://www.uky.edu/Libraries/libpage.php?lweb_id=253&llib_id=16

COURSE DESCRIPTION

Bulletin Description:
A review course designed to cover the primary concepts taught in the major medical laboratory science discipline in preparation for the national certifying exam. Reviews will be conducted by utilization of clinical and multi-disciplinary case studies, certifying mock examinations, and additional review assignments. Prereq: Admission into the Medical Laboratory Science Program or consent of instructor.

Student Learning Outcomes:
By the end of the semester, given readings, activities, examinations, and class discussion, the students will be able to demonstrate the following learning outcomes:

The student will:

Learning Outcome #1: Demonstrate entry level knowledge and practical application skills toward the field of Medical Laboratory Science.

Learning Outcome #2: Possess the ability to interpret clinical results and apply trouble-shooting skills while practicing self-validation of their findings.

Learning Outcome #3: Research and write a paper on a multidisciplinary clinical case or a disease as it relates to medical laboratory science.

General Course Objectives:

Upon completion of this course, the successful student will:

1. Correlate hematology, clinical chemistry, clinical microbiology, and immunohematology findings for a given patient given the patients results.
2. Successfully complete mock exams that cover entry level knowledge for the Medical Laboratory Sciences field with at least 75% accuracy.
3. Complete the case studies and review for each area in Medical Laboratory Science with at least 75% accuracy.
4. Complete a comprehensive writing assignment specific to medical laboratory science that includes a literature review focusing on a multidisciplinary approach to a clinical case or disease and earn at least 75%.

Affective behavior Objectives:

1. Students will appreciate how correlation of practical rotations enables them to successfully pass certification exams.
2. Students will comprehend the significance of accurate results needed by other healthcare professionals to successfully treat our patients.

Grading:

The MLS 470 Clinical Correlations course is graded as follows:

Mock Exam #1	5%
Mock Exam #2	15%
Review Exams (Each area exam worth 12.5%)	50%
Case Study or Disease Paper	10%
Case Studies (Each area cases worth 5%)	20%
Total	**100%**

Mock Exams: Students will take certifying mock examinations via computer in a proctored environment. This is to simulate the environment and testing format used by the BOC.

Review Exams: Reviews consist of the four major disciplines (hematology, microbiology, clinical chemistry and immunohematology). After each review students will take an on-line examination. Students will be notified if additional content, such as body fluids, is to be included in that discipline review exam.

Case Study or Disease Paper: Students must research a topic area focusing on a multidisciplinary approach to a clinical case or a disease as it relates to medical laboratory science. The end results of this research will be a 15-page paper in which students must draft, edit, revise, and proofread. Details of this assignment can be found on Blackboard.

Case Studies: Each discipline will have an associated set of case studies which must be completed. These case studies are designed to help you review the content of that section and will also assist in studying for the review exam.

Grading Scale:

A	90-100%
B	80-89%
C	70-79%
D	60- 69%
F	below 60%

Mid-Term Evaluation:

Students will be provided with a mid-term evaluation. Exams taken and assignments due before mid-term (mid-term date can be found on the UK Academic Calendar) will be used to determine mid-term progress.

Textbooks:

The following are a list of suggested MLS Review books that have exam questions and review material with each answer. They will useful in studying for the MLS Certification exam (BOC) and for this course. There is no one book recommended for this course and so a book is optional.

1. **Clinical Laboratory Science Review: A Bottom Line Approach** , ed. Jarreau, Patsy, publisher LSU Health Sciences Center Foundation, New Orleans, 3rd edition, c. 2005, ISBN 0-9670434-1-7.
2. **Success! In Clinical Laboratory Science**, ed. Ciulla, A. P., Lehman, D. C., publisher Pearson, Boston, 4th edition, c. 2010, ISBN 10 0-13-512648-7 or ISBN 13 978-0-13-512648-6.
3. **Clinical Laboratory Science Review**, ed. Harr, Robert R. , publisher F. A. Davis Company, Philadelphia, 3rd edition, c. 2007, ISBN 10: 0-8036-1373-3 or ISBN 13: 978-0-8036-1373-7.
4. **BOC Study Guide**, ed. Tanabe, P. A., and Holladay, E. B. , Publisher American Society for Clinical Pathology, Chicago, 5th edition, c. 2009, ISBN 10: 0891895876.

COURSE POLICIES

Attendance:

For face-to-face meetings, attendance and punctuality is required.

Make-up opportunity: When there is an excused absence a student will be given an opportunity to make up the missed work and/or exams. It is the student's responsibility to inform the instructor of the absence, preferably in advance. Time and location of make-up exams will be determined by the instructor.

Excused Absences:
S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences:

a) serious illness;
b) illness or death of family member;
c) University-related trips;
d) major religious holidays;
e) other circumstances you find to be "reasonable cause for nonattendance".

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day for adding a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Verification of Absences:
The instructor has the right to request appropriate verification of an excused absence. Students missing work due to an excused absence bear the responsibility of informing the instructor about their excused absence (except where prior notification is required) and of making up the missed work (see "Make-up Opportunity" policy above).

Late work: Late work will not be accepted for a grade unless approved by instructor. If approved, points will be deducted for late work at the rate of 5 points per day. After one week, late work will not be accepted.

Submission of assignments: Assignments will come from each instructor and will be available on Blackboard. All assignments are to be accessed and submitted via Blackboard or as directed by the Instructor. All assignments are due on the assigned date given by the instructor. If a student has technical difficulties when submitting an assignment close to the deadline that he/she submits the assignment to the instructor by email and indicate the technology issue in the body of the email.

Questions Concerning Grades: All assignments and exams will be evaluated. Any assignment graded incorrectly or questions concerning the grading must be brought to the instructors' attention within one week of the grade being posted/returned. One week after grades have been posted/returned they become final and no corrections will be made.

Academic Integrity, Cheating, and Plagiarism: Each student in the class and program are expected to adhere to the highest standards of academic honesty. Cheating, plagiarism, and destruction of course materials violate the rules of the University. For more information on the University's policy on academic integrity please see Students Rights and Responsibilities, Part II, Section 6.3 (http://www.uky.edu/StudentAffairs/Code/part2.html). Violations of the university's rules regarding academic honesty can lead to a failing grade in the course and suspension, dismissal or expulsion from the University. Instances of academic dishonesty will be reported to appropriate University officials as required by University rules and procedures.

Academic Accommodations: If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation

from the Disability Resource Center (Room 2, Alumni Gym, 859-257-2754, email address jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities. We can then collaborate on the best solution.

Lexington Campus Severe Weather: It is the policy of the University of Kentucky to keep all offices open and classes meeting as scheduled except under extraordinary conditions.

If severe weather should result in changes to the university schedule, the university will follow specific procedures about when those decisions are made and how they will be announced. Details of those procedures are available at http://www.uky.edu/PR/News/severeweather.htm .

All faculty, staff and students should note that announcements regarding the cancellation of classes and closure of offices, or a delayed opening will normally be made by 6 a.m. through the local news media. The most up-to-date and complete information will be available from the UK Infoline at 859-257-5684, UK TV Cable Channel 16, or the UK Web site at http://www.uky.edu/

CERH Campus Severe Weather: It is the policy of the University of Kentucky and the Center for Excellence in Rural Health (CERH) to keep all offices open and classes meeting as scheduled except under extraordinary weather conditions. **The MLS Program will follow the cancellation or delayed announcements of the CERH.** The announcements regarding the cancellation of classes (closure of facility) or a delayed opening are typically made by 6 a.m. The most up-to-date and complete information will be available from the Center phone line at (606)-439-3557, WYMT TV, Radio Stations 97.9 & 101.1, or the Center web site at http://www.kyruralhealth.org/.

If classes are cancelled in Hazard, but not in Lexington, ITV lectures will be recorded and made available to CERH students.

If classes are not cancelled or delayed and road conditions in your area make it dangerous for you to travel, the prudent thing to do would be to remain home and then get the information that you missed from a classmate. To check road conditions you may use the "511" system of the Kentucky State Police. Just dial those three numbers and the machine will prompt you through road conditions for your area.

COURSE SCHEDULE

08/27	**Orientation to MLS 470** (10 am-Noon) Room Lex: TBD, Haz: TBD **Mock Exam 1** (Noon-2 pm)
08/28-09/16	**Microbiology Review On-line**
09/10	**Microbiology Case Studies assignment Due** (5pm)
09/15-09/16	**Microbiology Review Exam** (window opens 5pm for 24 hours)
9/17	**Paper Outline Due** (5pm)
09/17-10/7	**Hematology Review On-line**
10/01	**Hematology Case Studies Assignment Due** (5pm)

10/06-10/07	**Hematology Review Exam** (window opens 5pm for 24 hours)
10/08-10/14	**Week to Work on Paper**
10/14	**Paper Draft #1 Due (5pm)**
10/15	**Microbiology Review Mtg** (10am-Noon) Room Lex: TBD, Haz: TBD **BOC Information Session** (Noon-1pm) **Hematology Review Meeting** (1 pm-3 pm)
10/22-11/11	**Immunohematology Review On-line**
11/05	**Immunohematology Case Studies Assignment Due** (5pm)
11/10-11/11	**Immunohematology Review Exam** (window opens 5pm for 24 hours)
11/12-12/02	**Clinical Chemistry Review On-line**
11/26	**Clinical Chemistry Case Studies Assignment** Due (5pm)
12/01-12/02	**Clinical Chemistry Review Exam** (window opens 5pm for 24 hours)
12/03	**Graduation Updates** (Noon-1:30pm) Room, Lex: TBD, Haz: TBD **Immunohematology Review Meeting** (1:30 pm-4pm) **Final Paper Due** (5pm)
12/04	**Chemistry Review Mtg** (10am-11:30am) Room Lex: TBD, Haz: TBD **Mock Exam #2** (12:30-2:30pm)