

### Program Requirement Change

**Program:** Medical Laboratory Science

**Proposed Change:** Change to Semester Start date for Year 4

#### **REASON FOR CHANGE AND WAYS IN WHICH IT MAINTAINS/ENHANCES COURSE OBJECTIVES**

Clinical practicum courses in the fourth year of studies are a critical component of the Medical Laboratory Science program. They provide students with an intensive, year-long, applied experience related to their field of study and prepare students to successfully enter practice or lab-based graduate work following the completion of their degree.

In order to ensure that students are adequately prepared for this full-year clinical placement, as well as to meet the requirements of our clinical affiliates, there are a number of academic and program-related activities that must be completed prior to the student beginning their practicum experience. These activities include:

- Clinical site orientation – this is a requirement of clinical agencies and is provided by them for all new students, employees and volunteers. It is required by our partners that this be completed prior to the first day of clinical placement
- Clinical Preparation Seminar – this is a two day seminar that was developed, in collaboration with our external Program Advisory Committee (PAC) that is devoted to academic review, program expectations and preparing students for successful completion of their practicum courses.
- Clinical Project Preparation – all students are required to complete a comprehensive research project related to their clinical placement. This portion of the students' preparatory activities is designed to orient students to the topics, expectations and guidelines of the literature review that forms part of the clinical project, prior to the start of their placement. This stage of their project development will take place in a hybrid format, leading up to the first day of the students' first discipline specific practicum rotation. Our PAC and clinical partners have indicated that this pre-practicum work has resulted in greater student success and stronger learning outcomes from the project.

These preparatory requirements are delivered in a combination of face-to-face and online delivery and are part of MLSC 4400U/4401U and the Clinical Practicum sequence of courses (previously MLSC 4300U/4301U; revised course numbers proposed for 2012 – 2013).

In addition to the above noted preparatory requirements which comprise course components and requirements in the fourth year, and which must be completed prior to students starting their placement at the practicum sites, the change to the start date also ensures that students are able to meet the stated hour requirements for clinical competencies set out for entry to practice and eligibility for professional certification (post-graduation).

- Clinical Practicum Time Requirement – The accreditation for the MLS program is based on a 32-week practicum requirement, comprised of year-long courses that are delivered over two 16-week semesters, in order to complete the discipline specific competencies and applied theory related to professional practice competencies.

This practicum delivery model forms part of the formal MLS program accreditation, first awarded to the program by CMA in 2007 and reconfirmed in 2010. Additionally, UOIT, St. Lawrence College and the Michener Institute have been working collaboratively with each other and our clinical partner sites for the past three years, coordinated by a UOIT Faculty member, to develop a system of practicum harmonization between institutions in order to ensure access to the required practicum placements. Cooperation and partnerships with clinical sites are critical to the practicum experience in accredited programs such as Medical Laboratory Science. These practicum timelines are consistent with the needs of clinical partners to deliver the required practicum experience across the required program disciplines incorporated into fourth year.

This time requirement may extend the clinical practicum courses into the stated final examination period in each term. While it is uncommon for students to be completing additional courses which require attendance on campus during their clinical placement, all clinical affiliates are required to accommodate students' academic requirements to travel to UOIT (if required) for coursework and examinations. This requirement has been formally agreed to by the program and its partners and is documented in the PAC minutes.

Fall Term

Classes will begin for students in Year 4 of the Medical Laboratory Science program on the Monday, two weeks prior to the stated first week of classes (e.g. for 2011 this would have been Monday, August 22 with regular classes beginning Thursday, September 8).

Winter Term

Classes will begin for students in Year 4 of the Medical Laboratory Science program the first business day after January 1<sup>st</sup> annually.

**CONSULTATION AND FINANCIAL IMPLICATIONS, WHERE APPROPRIATE**

Consultation initiated with the Registrar's Office.

**APPROVAL DATES**

Date of submission	September 2011
Program Committee approval	October 11, 2011
Executive Committee approval	October 26, 2011
Faculty Council approval	November 10, 2011



## Faculty of Health Sciences

TO: Curriculum and Program Review Committee

FROM: Ellen Vogel, Dean

SUBJECT: Response to CPRC – Medical Laboratory Science

DATE: January 11, 2012

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The following document is drafted to provide additional information addressing the questions raised by CPRC in the December 2011 meeting related to the proposal for changing the semester start dates in Year 4 of the MLS program.

### **Background**

In the original proposal for the Medical Laboratory Science (MLS) program that was submitted in to PQAB in June 2003 outlined the role that a program at UOIT would have in addressing the rising demand for advanced knowledge in the medical laboratory field, including development of bachelor's degrees and pathways into graduate studies in this area.

This need remains a primary emphasis in a human health resource area that is facing significant service delivery and professional attrition challenges over the next decade. These were noted as key drivers for change in a presentation to the UOIT MLS Program Advisory Committee (PAC) in October 2011, by the Clinical Laboratory Management Association.

The presentation emphasized that laboratory human resource will be impacted not just as a result of the impending shortage of licensed professionals resulting from an aging workforce (close to 65% of MLTs are 45 years and older and up to 2/3 will be eligible for early retirement in the next 10 years) but that there is also a shortage of laboratory professionals with the advanced skills and knowledge necessary to adapt with the changing technology and advances within the field. Further, there are currently significant barriers to entry to the profession, such that they are not able to exploit opportunities to advance expertise. Taken together, these issues are creating a threat to service delivery, public safety and the sustainability of the MLS profession.

The UOIT Medical Laboratory Science program has an important role to play in the future of medical laboratory science and maintains as one of its mandates the expansion of scholarship in the field to address the stated issues. This mission aligns with that of the University "to provide undergraduate and postgraduate university programs with a primary focus on those programs that are innovative and responsive to the individual needs of students and to the market-driven needs of employers".

## FACULTY OF HEALTH SCIENCES

### Bachelor of Health Science in Medical Laboratory Science

The fundamental character of the MLS program requires a dual emphasis on academic and clinical progression in order to address its goals. One of the most significant challenges in shaping the program is the need to balance the critical academic progression of the honours bachelor's degree, while at the same time recognizing the professional competencies that are required by the profession that the students need to apply this knowledge within.

While these two elements of the curriculum are distinct, they also exist in a symbiotic relationship where one cannot be achieved at the expense of the other. This means that the competency profile must continue to inform the curriculum and structure of the program, in order to ensure that students are able to meet the stated entry to practice competencies that will lead them to certification and licensure. However, at the same time it is necessary to maintain the depth, breadth and application of knowledge that make-up the degree level expectations of the honours bachelor's degree.

In the case of the proposal to formally change the start dates for the fourth year of the MLS program, these changes are being sought to legitimize the placement practices that have been in place for the past five years and which establish the balance between meeting the professional practice requirements while still meeting the academic requirements of the degree progression.

#### **Accreditation and Entry to Practice Requirements**

There are two documents that act in concert to outline the requirements that Medical Laboratory Science programs must meet in order to secure accreditation. These documents are:

- *Requirements for Accreditation of Educational Programs in Designated Health Science Professions* – Canadian Medical Association
- *Canadian Society for Medical Laboratory Science (CSMLS) Competency Profile*

One of the “critical criteria” that is set out by CMA for the accreditation is that:

*“Criteria 1.3 – The program defines competency-based objectives that encompass all competencies specified in the national entry level competency profile for the profession”*

This means that the MLS program must align with the competencies that are set out in the *CSMLS Competency Profile* and that the program's cross-reference to the national competency profile must be verifiable within the program's documentation of courses and educational activities. The CSMLS document sets out more than 170 competencies which must be achieved.

These competencies are thoroughly enmeshed throughout the courses in each year of the MLS curriculum; however the fourth year of the program encompasses a unique and significant practicum component that blends the acquisition and validation of all entry to practice technical and professional competence with a research-based academic project that spans the full length of the academic year.

#### **Clinical Placement Requirements and Timelines**

Clinical placement experience is a requirement of all MLS programs. While neither of the above documents outlines a specific length of time over which the practicum needs to occur, they do

## FACULTY OF HEALTH SCIENCES

### Bachelor of Health Science in Medical Laboratory Science

emphasize the need for programs to be “responsive to clinical stakeholders” and “facilitate consistency in assessment of student competence” in how competencies are achieved.

In order to address the first point, UOIT's practicum model was originally developed by multiple stakeholder meetings and was approved by the Program Advisory Committee (PAC) which was (and continues to be) made up of our clinical affiliates and 3 student representatives. This requirement to be responsive is directly correlated to the length of practicum programs, as the clinical sites have jurisdiction over the assessment of whether or not competencies have been achieved in clinical practice. Given this, collaboration with the clinical sites is paramount in establishing the timeframe in which the clinical laboratories are able to provide the practical experience upon which the student will be assessed. The practicum model is reviewed biannually and revised based on program, student and clinical feedback.

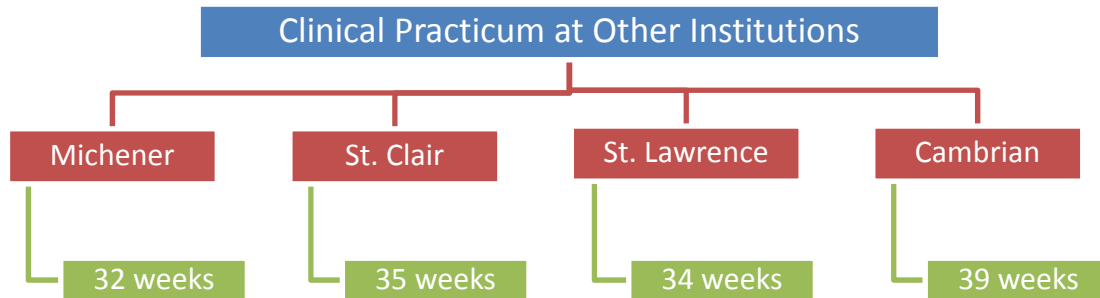
To the second point, the length of the UOIT practicum is also a result of extensive work done with other educational institutions to establish curriculum consistency in relation to meeting the professional competency component of the MLS program. This work has resulted in a practicum curriculum harmonization project which is being led by UOIT.

Harmonization is defined as standardization of the definition and assessment of the technical competencies in the five discipline specific rotations completed during practicum. This harmonization project was based on the following:

- 1) All MLS programs in the country teach to the same competency profile as defined by CSMLS.
- 2) St. Lawrence College and The Michener Institute were well established in the majority of clinical sites in a region that ranges from Ottawa to Niagara and north to Barrie - the same region in which UOIT was starting to recruit clinical sites and requires for clinical placements.
- 3) Feedback from potential clinical affiliates clearly indicated that they had worked hard with existing partners to establish a practicum model already accredited by CMA and therefore UOIT's consistency within this model would allow for stronger partnerships in establishing clinical placements.

There was also a strong recommendation shared with all three educational institutions that programs requiring clinical sites needed to work on harmonizing the practicum curriculum if clinical affiliates were to be requested to take students from more than one educational institution. This last point was a major motivator for UOIT to work on a harmonized practicum curriculum (with an emphasis on the technical and professional competencies defined by CSMLS) in order to help in the recruitment of the large number of clinical sites needed for the first class about to enter practicum. The resulting harmonized practicum curriculum is an exceptional model of collaboration that works in the best interest of students, educational institutions and clinical affiliates.

The practicum component of the fourth year curriculum at UOIT is 32 weeks (16 weeks per semester). The practicum lengths at the other harmonized institutions (Michener and St. Lawrence) as well as other institutions are noted below for comparison:



The practicum component of the MLS curriculum is directly related to the professional competencies that are required to pass the national certification exam set out by CSMLS for licensing as a Medical Laboratory Technologist. The strength of the program that exists at UOIT has been demonstrated by a 100% pass rate on the national certification exam by UOIT students in each of the past two years.

While UOIT maintains a similar practicum length as other institutions, the other institutions noted do not have the additional academic degree components that are also integrated into the practicum placement as part of the UOIT MLS program. This speaks directly to the rigor of the program at UOIT and the necessity to maintain the practicum length in order to ensure that both the academic requirements and practical competencies can be achieved.

### **Impact from Proposal**

#### Curriculum

As stated, extending the term dates of the fourth year of the MLS program is a proposal that will codify the practices that have been in place for the past five years, and a practicum experience length that is confirmed within the program accreditation by CMA.

To fit the practicum experience within the existing stated term lengths (13 weeks of delivery) would necessitate decreasing the practicum placement from 32 to 26 weeks. A reduction of 6 weeks of placement over the full course of the year will significantly impact both the academic content that can be delivered as well as the ability to meet professional competencies. Academic content in the fourth year MLS courses is directly linked through research and inquiry to clinical practice, and reducing the practicum time will have a direct impact on both. Reductions in either area of the curriculum would result in a reduction in academic integrity of the program and/or the inability for students to meet critical professional competencies. Both outcomes would negatively impact the purpose of the program and its ability to meet its objectives.

Additionally, as the clinical sites are the primary determiners of whether or not professional competencies have been met, UOIT may have difficulty accessing clinical sites that do not feel they are able to certify competency within this timeframe.

#### Accreditation

Section 9.1 of the *Requirements for Accreditation of Educational Programs in Designated Health Science Professions* sets out the reporting of changes in programs that have been previously accredited.

Programs are required to report major changes that relate to the critical criteria outlined in the *Requirements*. A change of this magnitude to practicum length would be considered a change to critical criteria as it directly impacts Criteria 1.3 (noted above). This criterion is noted as critical by CMA because it is specific to how the program is meeting the professional competency profile. This change would need to be reported to CMA and could result in a change to the program's accreditation status. While the UOIT MLS program currently has been accorded with a six-year accreditation status, this could be reduced to a two-year probationary status if the committee is not satisfied that the program can continue to meet the relevant critical criteria. The program would be required to cover all costs associated with any re-accreditation.

### Communication with Students

At the heart of this proposal is a desire to firmly outline for students the program requirements and expectations in a transparent and timely manner.

While the program has been operating with a longer than standard term length, with no issues raised by students to date, it has necessitated a number of operational "work-arounds" and has not been properly noted in the Academic Calendar, although it is noted in the MLS Practicum Handbook.

Further, the Practicum Coordinator (Teaching Faculty - Senior Lecturer) begins communicating information about the practicum to students starting in second year of studies via group meetings, one on one meetings and MyCampus email updates.

This year we are taking the step of meeting with first year students in early winter to start the practicum expectations dialogue even earlier.

### Student Conflict with Program Start Dates

We have had examples of exceptional circumstances requiring modification to dates over the past years (start, end and leaves needed). The Practicum Coordinator has successfully worked with the student and the clinical affiliates to resolve any issues.

As the dialogue with students regarding the practicum has always started early in their UOIT academic experience, there have been few students needing accommodation to date, but the Practicum Coordinator has demonstrated an ability to resolve all issues that have been presented.

### Winter Term Dates and Lengths

The term length for the winter term has remained 16 weeks even where the class start date has coincided naturally with the first business day after January 1<sup>st</sup>. The most recent example is the 2008-2009 academic year where classes started January 5, 2009 and the exam period ended April 24, 2009, a full 16-week period.

In this instance the practicum requirements end within the stated 16-week period and all grades were submitted on time according to the deadlines set out by the University.

FACULTY OF HEALTH SCIENCES  
Bachelor of Health Science in Medical Laboratory Science

In years where there is a gap between the first business day and the first day of classes (as in 2011-2012), beginning practicum early will lessen the amount of time in which the practicum runs into the exam period.

Elective Courses in Fourth Year

To date, the majority of students have completed their course requirements (electives) prior to starting their practicum placement, or have chosen to take online electives which do not have attendance and exam requirements. The Faculty of Health Sciences has one of the largest offerings of online electives as a result of the Allied Health program and MLS students are able to access these courses.

Students' requirements to either attend a face-to-face class or during the exam period will be accommodated. Students will need to identify their need to the Practicum Coordinator who will work with the student and the clinical affiliate to ensure that the students' needs are accommodated.

Insurance

Prior to this proposal students have been attending practicum placements prior to formal start date of classes. Students must be registered in fourth year practicum courses in order to be covered by the UOIT liability insurance. WEPA forms are completed to cover the entire practicum with dates that extend from before the formal start of the semester to after the date for the national certification examination. This allows for the accommodations stated above and for students who require a practicum extension for remediation purposes.