



INSTITUTE FOR
INTERNATIONAL
MEDICINE

INMED Professional Qualification Course in Obstetrics Ultrasound Syllabus

Course Faculty:

Mark Muilenberg, ARDMS

Course 1-Day Teaching Assistant:

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Student Support & Technology Assistance:

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Overview:

Obstetrics care requires critical information about the mother and baby. Ultrasound is an essential technology to supply such vital information. This course develops skills in early pregnancy ultrasound (confirmation, location) and third trimester ultrasound (parity, pulse, pocket, placenta, presentation, postpartum evaluation). This course requires that participants already have attained basic obstetrics skills and experience. The INMED Professional Qualification Course in Obstetrics Ultrasound is a hybrid experience that combines online preparation followed by a one-day, in-classroom event to master hands-on skills and assess achievements. Academic credit earned is 1 credit hour.

Competency Objectives:

At the completion of the INMED Professional Certificate Course in Obstetrics Ultrasound learners will be able to:

- Confirm early pregnancy diagnosis and location
- Identify common gynecological pathology
- Identify the 6 Ps of late pregnancy: parity, pulse, pocket, placenta, presentation, postpartum evaluation

Timeframes:

This Professional Certificate Course is a hybrid experience that combines an online learning experience followed by a one-day, in-classroom workshop to master hands-on skills and assess achievements.

Academic Credit:

Completion of this course requirements earns one credit hour of academic credit.

Admission Requirements:

Enrollment in the INMED Professional Qualification Course in Obstetrics Ultrasound is open to healthcare professionals and healthcare profession learners, including physicians, midwives, advanced practice nurses, and physician assistants.

Computing Requirements:

The following are the minimum computing requirements for participating this course. Students must have ready access to and be functionally proficient with:

- A personal computer with an up-to-date operating system and ample memory for downloads. A rectangular monitor (desktop or tablet) is preferable for course navigation.
- A web browser, preferably the most up-to-date version of Chrome, Internet Explorer, Firefox, or Safari
- Applications capable of opening and editing Microsoft Word documents and of viewing PDFs
- An Internet connection, preferably high speed
- Capability of viewing YouTube and Vimeo videos

Education Methods:

Learners will achieve the course competency objectives through the following education methods:

- Interactive online learning techniques
- Interactive live presentations
- Skill stations for increasing technical proficiency
- Case studies for developing clinical judgment

Accessible Education

INMED is committed to creating a learning environment that meets the needs of its diverse student body. If a student anticipates or experiences any barriers to learning in this course, please feel welcome to discuss concerns. If a student requires accessible academic adjustments and/or auxiliary aids, contact the Office of Student Support to request official accommodation. To contact Student Support, email students@inmed.us.

Writing, study skills, mental wellness resources are available to all students.

Library, Information Resources, Writing:

All INMED students have access to a variety of library services and resources, available through <https://www.inmed.us/library-resources/>. You can contact the library by email at library@inmed.us. INMED's research librarian regularly provides assistance in the use of library resources, citation formatting assistance, information literacy topics, and academic research.

Study Skills and Learning Strategies Resources:

Faculty advisors provide academic skills support and assistance for academically related and personal problems. Please reach out to your advisor.

Mental Health:

If you are experiencing symptoms of anxiety or depression or are feeling overwhelmed, stressed, or in crisis, you can seek help through the following outside organizations/resources: <https://www.inmed.us/student-resources/#mental-wellness>. Disclaimer: Inclusion does not constitute an endorsement by the Institute of International Medicine of any outside organization, or the- products or services offered, or views expressed. The list is intended to provide clarity to the public regarding support services provided nationally and internationally.

IT Assistance & Additional Learning Support:

For assistance with the LMS, course registration, degree audit, please contact INMED's director of student engagement & technology by email at lriviera@inmed.us.

Assigned Obstetrics Ultrasound Lessons:

Assignments to be completed prior to the in-person classroom event include Obstetrics Ultrasound Pre-Test, Lessons 1-5, and Post-Test.

- Lesson 1 Obstetrics Ultrasound Principles
- Lesson 2 Normal Pregnancy
- Lesson 3 Early Pregnancy Complications
- Lesson 4 Later Pregnancy Complications
- Lesson 5 Fetal Heart Ultrasound

In-Person Classroom Workshop:

Each major topic will begin with a rapid review of anatomy and examples of normal scan planes, followed by supervised, hands-on scanning experience to achieve normal scan planes, ultrasound techniques and equipment control.

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| 8:00am | Principles of US equipment use and image optimization |
| 8:20 | Early pregnancy diagnosis/confirmation and location |
| 8:40 | Hands-on Clinical Sessions |
| 12:00 | Lunch |
| 1:00 | 2-3rd Trimester Ultrasound Evaluation. Late pregnancy fetal parity (number)/pulse (fetal heartbeat)/ pocket (fluid)/ placenta (location)/ fetal presentation/ post-partum evaluation/ late pregnancy placenta (location)/ fetal presentation/ post-partum evaluation. |
| 1:40 | Basic gynecological ultrasound (ovarian cysts and uterine masses) |
| 2:00 | Hands-on Clinical sessions |
| 3:00 | Evaluation of hypotension or shock related to obstetrical hemorrhage |
| 5:00 | Conclusion |

*Schedule is subject to change

Final Exam:

Learners will each demonstrate their skills throughout the day under supervision of the ultrasound faculty, who will evaluate learners using a standardized skills checkoff list. Learners must demonstrate satisfactory attainment of all required skills.

Explanation of Assignments:

Participation: Learners are required to fully participate in the course content, including interactive content, pre-test, post-test, and in-person classroom hands-on activities.

Punctuality: This is a professional level course. All assignments are expected to be submitted on time.

Professionalism Requirement: This is a learning experience for professionals. Assignments are expected to be completed with excellence.

Learners whose evaluation is acceptable will receive the *INMED Professional Certificate in Obstetrics Ultrasound*. Those learners whose evaluation is not acceptable will receive a certificate of participation and the opportunity to remediate.

Inadequate learner performance will be managed according to the *Student Probation, Suspension, Dismissal, and Readmission Policy*. This policy is located within the Student Resources tab on the INMED website.

Requirements for Successful Completion & Course Grade Determination:

This course is graded pass/fail. Successful pass requires:

- Maternal-Newborn Health Post-Test $\geq 80\%$
- Satisfactory demonstration of all required skills
- Complete course evaluation and credit claims forms at the course conclusion.

Remediation:

If a learner does not complete this course and achieve the required competencies, the faculty may require the learner to 1) remediate the component(s) that the learner did not satisfactorily complete, or 2) repeat the entire course. Learners must repeat payment of tuition in order to retake a failed course.

Academic Integrity:

This is a professional-level learning experience. All learners are expected to be self-motivated, to perform with excellence, and to be thoroughly honest throughout their process of learning. If any INMED faculty determines that a learner has committed academic dishonesty by plagiarism, cheating or in any other manner, the faculty member has the right to 1) fail the learner for the particular assignment, project and/or exam, 2) fail the learner for the entire course, 3) discharge the learner from any future INMED learning experience, including degree, diploma, or certificate completion.

Withdrawal and Refund Policy:

You may choose to defer a course enrollment to a future course date. If you do not defer to a future course date, you may withdraw from currently enrolled courses at any time and receive the following refund rates:

100% refund 1st day – 3rd day*

No refund if any course materials have been accessed.

* Day one = date enrollment agreement is signed or date on course registration receipt. "Day" refers to a business day and excludes weekends and holidays.

Course Faculty:

Mark Muilenberg, ARDMS

Mark Muilenberg is an ultrasound technologist originally from the Iowa City area. His is largely focused on equipping healthcare professionals with critical ultrasound skills essential for underserved communities. Such teaching has brought him to Africa and Asia, and several times to teach at INMED. Realizing the limits of infrastructure in low-resource communities, he is currently very involved in the product development of a wireless, battery-powered, cell-phone-sized, high-resolution ultrasound scanner. When he's not abroad teaching ultrasound, Mark Muilenberg shares his skill at a crisis pregnancy center in Naples, Florida.