The Marine Biological Laboratory in Woods Hole, MA is world renowned for its advanced training courses for pre- and postdoctoral trainees. These are intensive, full immersion, hands-on courses that involve discovery based research using cutting-edge equipment generously loaned by top notch scientific equipment vendors. Students live on the MBL campus and interact with a vibrant, collaborative research community across disciplines that builds networks for life. MBL welcomes all people, regardless of gender, ethnicity, race, sexual orientation, religion, or country of origin. We are committed to developing a diverse scientific and academic workforce.

**TAKING AN MBL COURSE IS TRANSFORMATIONAL.**

**Frontiers in Reproduction: Molecular and Cellular Concepts and Applications**
April 28- June 10; application deadline January 18
This is an intensive training program in animal and human reproductive biology designed to transmit the latest conceptual advances in the field and provide hands-on experience with techniques used in research labs and in clinics. The ultimate goal is to train the future leaders in the field to improve reproductive outcomes in humans and animals.

**Embryology: Concepts and Techniques in Modern Developmental Biology**
June 8-July 21; application deadline Feb 1
Focuses on hands-on training that comprehensively covers the paradigms, problems, and technologies of modern developmental biology cast within a comparative framework of metazoan evolution. Students will integrate cutting-edge microscopy and molecular genetic manipulations using state-of-the-art instrumentation, reagents, and methods. Topics include cell specification and differentiation, pattern formation, embryonic axis formation, morphogenesis, intercellular signaling, transcriptional regulation, organogenesis, and regeneration.

**Zebrafish Development and Genetics**
August 4 –18; application deadline April 16
This intensive, hands-on course focuses on molecular, genetic, and imaging methods for using zebrafish as a powerful model system for the study of vertebrate development, regeneration, and disease.

**Gene Regulatory Networks for Development**
October 14 – 27; application deadline July 9
This computational-based course focuses on designing and testing gene regulatory networks from experimental data to determine how embryonic development proceeds from the totipotent zygote to the complex multicellular organism. Laboratory exercises and research focus on how gene regulatory networks are controlled and coordinated, and how perturbation leads to congenital malformations and cancer.

**Substantial financial assistance is available.**

The MBL is an Affirmative Action/Equal Opportunity/Disabled/Veterans Employer and an affiliate of the University of Chicago.

“...an amazing experience. Not only because of all the scientific and lab skills we achieved, but also because we got to meet great scientists from all over the world.” —2014 Alum

Marine Biological Laboratory | mbl.edu/courses