Advances in stem cell research has created tremendous opportunities across a broad spectrum of fields. This course provides students with all the necessary knowledge and technical know-how to start working with human stem cells. The lectures introduce the fundamentals of stem cell biology and expose students to ongoing stem cell-related research at the University of Utah. The lab section provides each student with practical hands-on techniques required for reprogramming, culturing, and cryopreserving iPSCs. Each student also learns how to differentiate iPSCs into either neurons or beating cardiomyocytes.