

## BMEN6366 - Image-Guided Drug Delivery

[BMEN 6366](#) Image-Guided Drug Delivery (3 semester credit hours) This course will cover a variety of imaging modalities (MRI, Ultrasound, Optical Imaging) and how they are applicable to delivery of pharmaceutical drugs in vivo. This course will concentrate on current drug delivery strategies, barriers to delivery of specific molecules, and how image-guided approaches can be used to overcome these obstacles. While multiple topics in drug delivery will be discussed, a special emphasis will be placed on delivery of systemically administered compounds. Students will be expected to review and discuss current literature in image-guided drug delivery and design strategies for improving efficacy of therapeutic compounds using any of the imaging modalities discussed in class. This class will NOT focus on basics of imaging techniques or image processing. (3-0) Y