

ECE 5770: Organs-on-a-Chip

Microfluidic electrochemical biomimetic systems as a physical micron-scale model of a human organ for sensing pharmaceutical, cosmetics, and food ingredients toxicology. Combine fundamentals of field effect circuits, optics, fluid mechanics, soft-lithography, and biochemistry with an emphasis on life sciences applications.

Credits: 3.0

Prerequisites:

MAT 2705

EGR 2021

ECE 2530

PHY 1102

PHY 2402

PHY 2412

MAT 2705 :Y or EGR 2021 :Y or ECE 2530 :Y and PHY 1102 or PHY 2402 or PHY 2412

Program: [Electrical and Computer Engineering](#)